

# Initial Assistance & Validation Meeting

## Tulare County Carbon Storage Project (TCCSP)



### Societal Considerations & Impact (SCI)

### Community Benefits Plan (CBP) Overview and Assessment

December 21, 2023



# Tulare County Carbon Storage Project (TCCSP)

Carbon Storage Assurance Facility Enterprise (CarbonSAFE):  
Storage Complex Feasibility DE-FOA-0002610

DE-FE0032264

## PERFORMANCE PERIOD

Oct. 1, 2023, to Sep. 30, 2025



## OBJECTIVE

The primary objective of Tulare County Carbon Storage Project (TCCSP) is to establish the technical, community, and economic foundation for a commercial-scale regional geologic storage complex for CO<sub>2</sub> captured from Calgren's ethanol production and dairy digester biogas cleanup facility in Pixley, California as well as dairy farms and industrial facilities in the area.

## PROJECT IMPORTANCE

Support FOA 2610, AOI-1 Single or Multi-Source (Hub) Onshore Storage Facilities.

## TASKS

- Task 1.0 – Project Management and Planning
- Task 2.0 – Community Benefits Plan
- Task 3.0 – Stratigraphic Well Permitting
- Task 4.0 – Well Drilling and Data Acquisition
- Task 5.0 – Data Synthesis and Modeling
- Task 6.0 – Risk Assessment and Mitigation Planning
- Task 7.0 – Data Gathering and Permitting Plan
- Task 8.0 – Techno-Economic Assessment
- Task 9.0 – Environmental Justice
- Task 10.0 – Community and Stakeholder Engagement

## FUNDING PROFILE

Total Project Funding: \$12 Million

Table 1: Total Budget Summary

Budget Categories	DOE Funding	Cost Share	TOTAL
Personnel	\$ 349,466	\$ 104,185	\$ 453,651
Fringe Benefits	\$ 158,378	\$ 47,216	\$ 205,595
Travel	\$ 35,208	\$ 10,496	\$ 45,704
Subcontractors	\$ 7,326,557	\$ 2,184,230	\$ 9,510,787
Other Direct Costs	\$ 246,509	\$ 73,491	\$ 320,000
<b>Total Direct Charges</b>	<b>\$ 8,116,118</b>	<b>\$ 2,419,618</b>	<b>\$ 10,535,737</b>
Indirect Charges	\$ 1,196,174	\$ 356,610	\$ 1,552,784
<b>TOTALS</b>	<b>\$ 9,312,293</b>	<b>\$ 2,776,227</b>	<b>\$ 12,088,520</b>

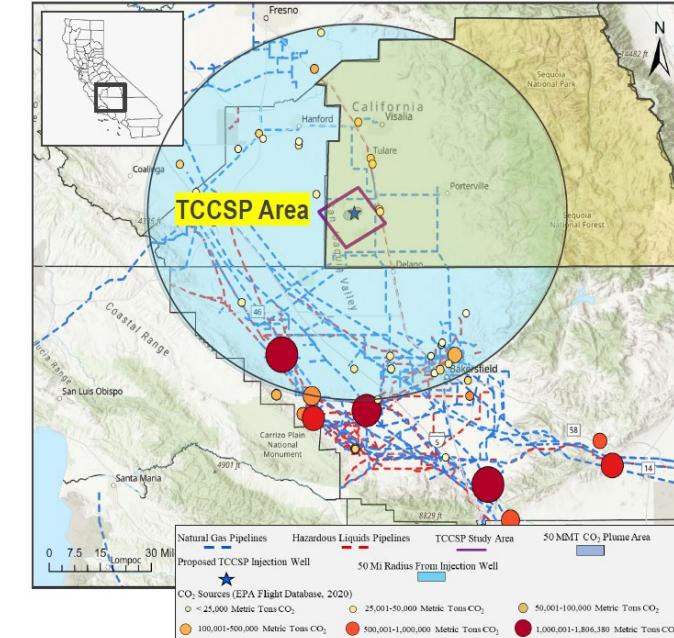


Figure: Map of the regions study area: Tulare County

## CONTACTS

Federal Project Manager:

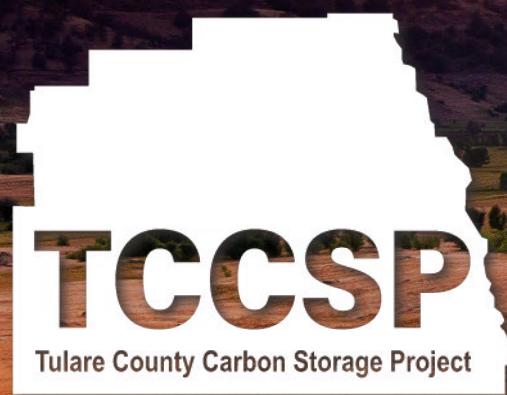
- Paul Zandhuis, NETL

Principal Investigators:

- Manoj Valluri, ARI and Chuck Miller, Calgren

# Tulare County Carbon Storage Project

## Initial CBP Assistance and Verification Meeting



**Prepared for:**  
U.S. DOE/NETL

**Prepared by:**  
Denise Hills and Manoj Valluri, ARI

12/21/2023

# Agenda

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- Project Description
- Project Partners and Resources
- Community Benefits Plan (CBP) Overview
- Community and Labor Engagement
- Investing in Job Quality and a Skilled Workforce
- Diversity, Equity, Inclusion, and Accessibility
- Justice40 Initiative
- Timeline / Implementation Roadmap
- Data and Metrics
- Proposed Framework to Evaluate and Track Progress
- Potential Challenges to Successful Outcome

# Project Description

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- Overall primary object is to establish the technical, community, and economic foundation for a commercial-scale regional geologicstorage complex for CO<sub>2</sub> captured from Calgren's ethanol production and dairy digester biogas cleanup facility in Pixley, CA.
- Project objectives
  - ✓ Objective 1. Obtain Site Characterization Data to Determine Geologic Feasibility of Injecting and Storing Commercial Quantities of CO<sub>2</sub>.
  - ✓ Objective 2. Optimize the CO<sub>2</sub> Storage Capacity of the Storage Complex and Delineate the Area of Review.
  - ✓ Objective 3. Assess Technical, Legal, Logistical, and Financial Risks to Developing a Commercial CO<sub>2</sub> Storage Complex Hub in Tulare County.
  - ✓ Objective 4. Develop a Portfolio of Reliable CO<sub>2</sub> Sources and Transportation Options
  - ✓ Objective 5. Define a Site Characterization and Permitting Plan to Accelerate the Path to Commercial Deployment.
  - ✓ Objective 6. Assess the Technical and Economic Viability of the Project
  - ✓ Objective 7. Assess Environmental Justice in Project Area and Ensure it Benefits Disadvantaged Communities
  - ✓ Objective 8. Conduct Stakeholder Outreach to Engage Local Communities and Accelerate Community Buy In.
- Phase II –Storage Complex Feasibility
  - ✓ While all objectives are relevant to CBP, Objective 6, 7, and 8 are most directly related

# Project Partners and Resources

Organization	Key Personnel	Role	Funding Allotted to CBP Activities
Advanced Resources International (ARI)	Denise Hills	CBP (Task 2) Lead	\$192,987 in total labor (\$81,427 for Task 2, \$43,778 for Task 9, \$67,782 for Task 10)
Socio Environmental and Education Network	Anna Gurevitz, Chantelise Pells, Angel Fernandez Bou, Clara Rodriguez, Felipe Perez	Local J40 and CSE Partner	\$400,517 for Task 9 and Task 10
Visage Energy	Daryl-Lynn Roberts, Will Johnson	J40 and CSE advisor	\$64,483 for Task 9 and Task 10.
Calgren	Tim Morillo, Travis Lane	J40 (Task 9) and CSE (Task 10) advisors	\$117,562.5 in total labor for Task 9 and Task 10

# Community Benefits Plan (CBP) Overview

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- Overarching purpose is to determine benefits and disbenefits of TCCSP as they relate to local disadvantaged communities, and engage with stakeholders throughout the process to increase benefits and decrease risk of disbenefits
- Potentially impacted area includes Calgren's Pixley plant, adjacent TCCSP storage site, and broader Pixley area
  - ✓ Pixley area is a DAC as determined by OEID's DCRT, ranking above 90<sup>th</sup> percentile in 6 burden indicators
  - ✓ Surrounding area stakeholders to be engaged include Richgrove (DAC), East Porterville (DAC), and Tule River Tribe

# Community and Labor Engagement

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- SocioEnvironmental and Education Network (SEEN) leading CSE efforts, supported by Visage Energy, with all project partners playing a role
- Work conducted to date has focused on technical viability of the CO<sub>2</sub> storage hub
  - ✓ Continued work seeks to understand the nature of community partnerships that are beneficial to local communities
- CLE Stakeholders engaged or to be engaged include but not limited to:
  - ✓ Tulare County Farm Bureau
  - ✓ Local Landowners
  - ✓ Congressional offices
  - ✓ Communities of Pixley, Tipton, Earlimart, Alpaugh, and Allensworth
  - ✓ Leadership Council Counsel for Justice & Accountability
  - ✓ Self-Help Enterprise (SHE)

# Community and Labor Engagement

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- Appropriate community agreements will depend on the ongoing research conducted as part of the CBP
- A clearly defined, collaborative, and inclusive community and stakeholder engagement plan (CSEP) is being developed by SEEN and will include:
  - ✓ Prior and ongoing community engagement efforts
  - ✓ Social characterization assessment (SCA)
  - ✓ Initial stakeholder analysis summary
  - ✓ Determine and define engagement methods and timeline
  - ✓ Engagement evaluation strategies
  - ✓ Any other information or actions needed
- Commitments include:
  - ✓ Implementation of TCCSP CSE Strategy
  - ✓ Community Engagement Workshops (3) to appraise CSE strategy
    - ✓ CEW 1 –Feedback by 06/15/2024
    - ✓ CEW 2 –Feedback by 10/15/2024
    - ✓ CEW 3 –Feedback by 04/15/2025

# Investing in Job Quality and a Skilled Workforce

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- Objective is to ensure jobs created as part of the project are of sufficient quality to attract and retain a skilled workforce
- Commitments include:
  - ✓ C3a.1: Ensure workers are engaged in the design and implementation of workplace safety and health plans
  - ✓ D2.1: Support quality pre-apprenticeship programs in the local community and at MSIs to improve access to career-track workers

# Diversity, Equity, Inclusion & Accessibility

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- Commitment D1: Explore partnerships with MBEs, MOBs, WOBs, and VOBs for contractor support needs
- Current DEIA enterprises engaged as part of the project team include:
  - ✓ SocioEnvironmental and Education Network (SEEN)
    - ✓ Leading local DAC and stakeholder outreach/engagement to educate them on project plans while gathering feedback to help develop TCCSP's community benefits strategies
  - ✓ Visage Energy
    - ✓ Supporting CBP and EJ efforts by reviewing and advising on CBP strategy and approach, including J40

# Diversity, Equity, Inclusion & Accessibility

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- Other DEIA commitments include:
  - ✓ D2.1: Support quality pre-apprenticeship programs in the local community and at MSIs to improve access to career-track workers
    - ✓ Initial contact within 180 days of award
  - ✓ D3: Conduct project-wide professional "culture and climate" survey(s) to assess staff member views on DEIA within the project and the effectiveness of the TCCSP DEIA approach
    - ✓ September 2024
  - ✓ D4: Host and/or participate in DEIA workforce training programs to foster improved access to jobs for members of the community
    - ✓ Timeline TBD based on initial research and communication with SEEN
  - ✓ D5: Prevent discrimination, harassment, and profiling at the workplace, through formal training of internal or third-party staff conducting mediation and complaint investigations, using recognized certifying organizations

# Justice40 Initiative

- J40 work will be led by SEEN and supported by Visage Energy
- EEJ assessment will be conducted in the project area and will include:
  - ✓ Identification of impacted communities, groups, and tribes
  - ✓ Assessment of TCCSP benefits and disbenefits/harms
  - ✓ Assessment and addressing information gaps by engaging with local community leaders and stakeholders
  - ✓ Development of J40 milestones and timelines
- Potential benefits, which will be primarily realized during future phases of a full CCS project include:
  - ✓ E1.1: Potential decrease of CO<sub>2</sub> emissions
  - ✓ E2.1: Potential workforce development action plan in construction and clean energy; increased local and regional economic benefits due to increased sustainable job creation

# Justice40 Initiative

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- Potential disbenefits to DACs near TCCSP include:
  - ✓ Short term (<2 years)
    - ✓ Increased traffic and road congestion
    - ✓ Increased generator and tail pipe emissions
    - ✓ Increased dust and noise pollution
  - ✓ Long term (>5 years)
    - ✓ Use of limited natural resources
    - ✓ USDW contamination
    - ✓ Atmospheric leakage of fugitive CO<sub>2</sub>
    - ✓ Asphyxiation (catastrophic leak)
- Plans will be developed to minimize the risk of these disbenefits

# Timeline / Implementation Roadmap

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- Within first 90 days:
  - ✓ Finalize CSE strategy and resources
  - ✓ Finalize J40 strategy and resources
  - ✓ Contacting certified training staff for DEIA
- Within first 5 months and as needed throughout project:
  - ✓ Explore partnerships with MBEs, MOBs, WOBs, and VOBs to support contractor needs
  - ✓ Initial plans for pre-apprenticeship programs
- After permitting of characterization well/permit received
  - ✓ DEIA workforce training programs
- Ongoing throughout the project
  - ✓ CEWs (3) to appraise CSE strategy
  - ✓ Worker engagement in workplace safety and healthplans
  - ✓ Project-wide “culture and climate” survey(s)
  - ✓ Implementation of CSE strategy
  - ✓ Implementation of J40 strategy

# Data and Metrics

CBP Area	Data Collected	Frequency	Update Timeline
Justice40	Socioeconomic data (income, living costs, energy burden); geographic data (locations, local resources); demographic data (ethnicity, gender)	Continuous	Mid-project, end of project
Diversity, Equity, Inclusion and Accessibility	List of local MBEs and MSIs to engage during project lifecycle; culture surveys to project participants and stakeholders; DEIA training feedback	One time	Mid-project, end of project
Investing in Quality Jobs and Skilled Workforce	Inputs related to project health, safety and environmental planning	Periodic	Mid-project, end of project
Community and Labor Engagement	Community background and surveys (demographics, general issues of trust./distrust with regulators and industry, perception on climate change,); feedback on project plans at CEWs	Periodic	Mid-project, end of project

# Proposed Framework to Evaluate and Track Progress

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- OFA Strategy Package (CSEP) –12/31/2023
- Initial EEJA Report to ARI –02/02/2024
- J40 Strategy and planning report –12/16/2024
- Periodic CSE feedback from local stakeholders (quarterly)
- Community Engagement Workshops (CEWs) (3) to gauge public opinion and solicit feedback on the perceived impacts of the Project on local communities
  - ✓ CEW-1 attendance/feedback –06/15/2024
  - ✓ CEW-2 attendance/feedback –10/15/2024
  - ✓ CEW-3 attendance/feedback –04/15/2025

# Potential Challenges to Successful Outcome

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- Contractor delays
- Difficulty in scheduling CEWs for impactful engagement
  - ✓ Target dates are set for feedback reporting, but community needs and availability will need to be taken into account for specific dates
- Communication barriers, e.g.,
  - ✓ Media/messaging not reaching targeted audiences
  - ✓ Language barriers
    - ✓ Collateral materials will need to be provided in both English and Spanish
    - ✓ Spanish-language translators will likely be needed at CEWs and/or other meetings
    - ✓ These may incur additional costs that may not already be accounted for

# Follow-Up Actions

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- Determine criteria to identify key stakeholders, create an initial outline of the CSEP and develop specific approaches and timelines which can be used to engage the community.
- Prepare a timeline for diverse owned business and metric identification, business outreach process, and completion of reporting mechanism.
- Identify the complete list of programs and MSIs and prepare a timeline for collaboration, including project metrics development and outreach plan.
- Describe activities (cultural awareness / implicit bias training) and resources needed to build the team's DEIA capacity and how DEIA-related activities and goals will be monitored and evaluated based on assessment results.
- Determine approach to measure impact of the Project Team's participation in training programs.
- Create a participant survey to collect feedback of training efforts, summarize results and discuss outcomes with the Project Team.

# Inputs for Interim A/V Meeting



- Overview of progress made towards SMART milestones.
- Questions included in the stakeholder surveys and results, when available.
- Details on the stakeholder engagement meetings, including locations, format, mechanisms for feedback, and stipends or services to facilitate involvement by members of underserved communities.
- List of identified stakeholders and communities based on CSEP results.
- List of questions included in the culture and climate survey and results, when available.
- Newsletters or blog posts (if any) that have been developed to communicate stakeholder feedback.
- Updates on drilling operations, if applicable, including potential for engaging diverse owned businesses and students from local MSIs.
- Update on the Project Team's engagement with DEIA workforce training programs and the number of trainings planned.
- Interim Justice40 plan.