

U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

Embracing Energy and Environmental Justice at DOE's Vehicle Technologies Office

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June 2023



Vehicle Technologies Office (VTO): Implementing Solutions



Building an Equitable Clean Energy Future



Decreasing Transportation Emissions



Improving Transportation Affordability



Promoting American-Made Energy Solutions



Creating Jobs and Economic Growth

VTO Technology Integration Program

Provide objective data and real-world lessons learned that inform future research needs and support local decision-making to advance affordable, efficient, and clean transportation fuels and energy-saving technologies



Clean Cities
Coalitions



Information
and Tools



Technical
Assistance



Training,
Outreach,
Partnerships



Financial
Assistance



Regulatory Activities /
State and Alt Fuel
Provider Fleets



Advanced Vehicle
Technology
Competitions

More than 75 Clean Cities coalitions, representing ~85% of U.S. population



U.S. Department of Energy



Clean Cities Coalitions



U.S. Department of Energy

cleancities.energy.gov

Coalitions tailor projects to unique needs through partnerships with **20,000 stakeholders.**



Clean Cities coalitions act locally in **urban, suburban, and rural communities** to foster the nation's economic, environmental, and energy security and move our transportation systems into the clean energy future.



What is Environmental Justice?



<https://today.umd.edu/taking-on-a-toxic-legacy>

The fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

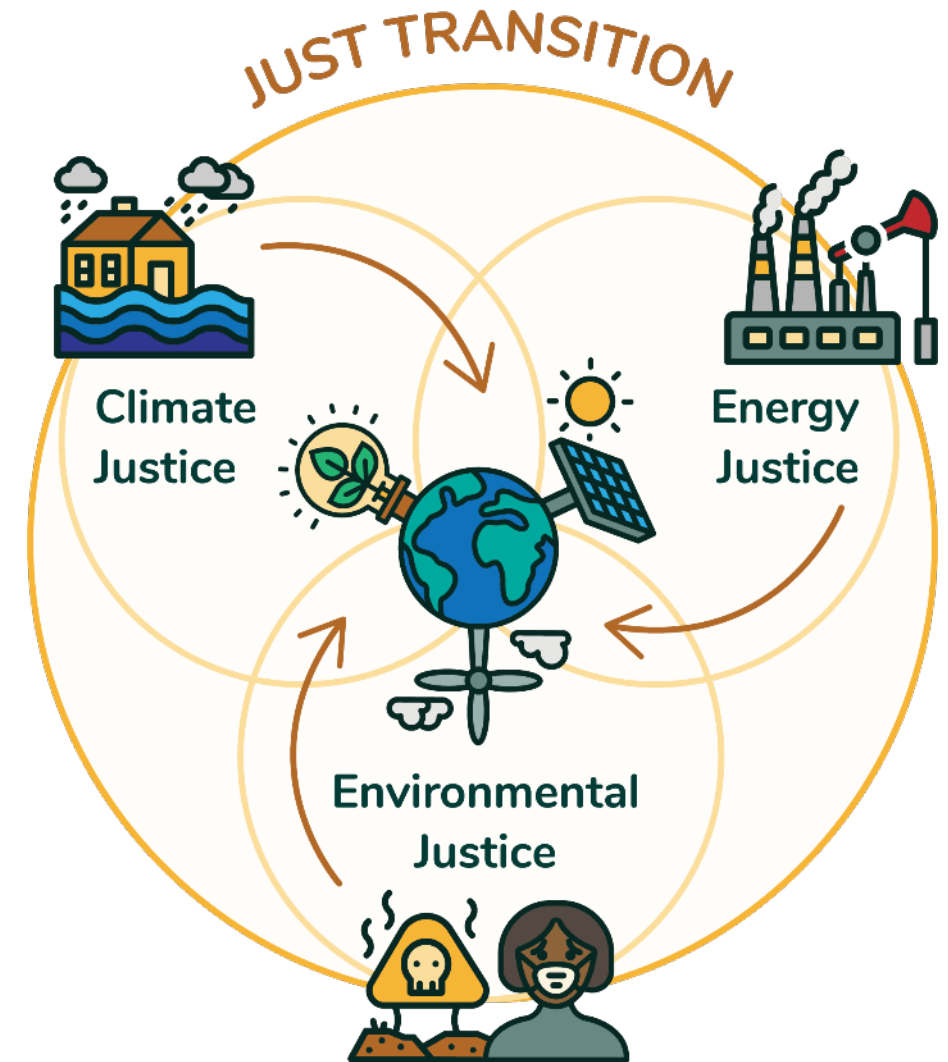
[What Is Environmental Justice? | Department of Energy](#)

What is Energy Justice?

- Goal of achieving **equity** in both the **social** and **economic** participation in the **energy system**, while also **remediating** social, economic, and health **burdens** on those disproportionately harmed by the **energy system**
- Aims to make energy more **accessible**, **affordable**, and **clean** and democratically managed for all communities.
- Also called “**energy equity**”



<https://iejusa.org/>



Pillars of Energy and Environmental Justice



Distributional

Equitable distribution of environmental benefits and burdens



Procedural

Broad and meaningful participation in the decision making



Recognition

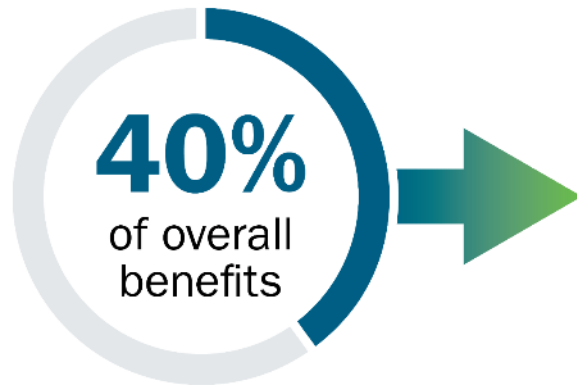
Respect and honor of divergent cultural and local knowledge



Restorative

Repair harms done to communities and the environment

Federal Justice40 Initiative



of certain **Federal Investments** including:



Clean
Transportation



Energy
Efficiency



Climate
Change



Training and
Workforce
Development



Clean
Energy



Affordable and
Sustainable
Housing



Water and
Wastewater
Infrastructure



Pollution
Reduction

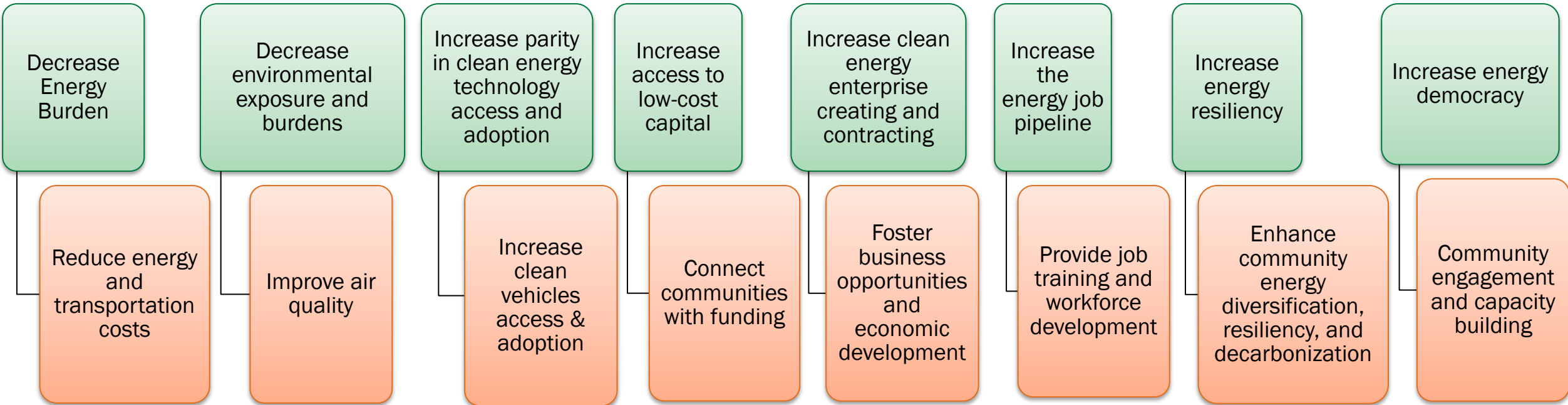


Justice40 Initiative established 1/27/21 with [EO 14008 on Tackling the Climate Crisis at Home and Abroad](#)

VTO/Clean Cities named in July 2021 [Interim Implementation Guidance for the Justice40 Initiative](#)

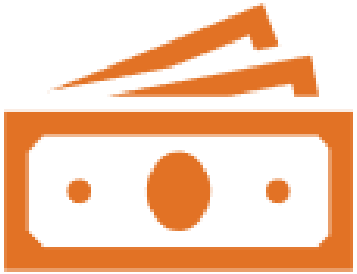


energy.gov/diversity/justice40-initiative



cleancities.energy.gov/energy-and-environmental-justice

VT0 Strategy to Maximize Benefits to Underserved Communities



Improve competitive financial assistance process



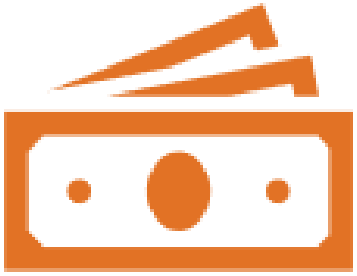
Expand reporting processes and metrics measurement capabilities



U. S. Department of Energy

Clean Cities
Energy and Environmental Justice (EEJ) Initiative

VT0 Strategy to Maximize Benefits to Underserved Communities



Improve competitive financial assistance process



Expand reporting processes and metrics measurement capabilities



Clean Cities
Energy and Environmental Justice (EEJ) Initiative

Understanding VTO Funding Opportunity Announcement (FOA) Barriers Through Stakeholder Engagement

50% cost share is too high for disadvantaged communities

FOA timing, topic, and amount are inconsistent

Application process is too complex

Communities may not know how to participate as a subrecipient

FOA structure doesn't allow community engagement to impact project plan

Existing FOA reporting doesn't evaluate benefits to disadvantaged communities

FY22 VTO Funding Opportunity J40 Strategies



Address Funding Opportunity Barriers

- Offered Teaming Partner List
- Streamlined TI application requirements and evaluation criteria
- Included topics targeting benefits to underserved communities
- Included Open Topic for project flexibility
- Obtained a cost share reduction waiver for a J40 deployment topic reduction from 50% to 20% cost share



Metrics Measurement

- Provided mapping tools to identify disadvantaged communities
- Incorporated J40 metrics in application requirements
- Required projects collect and report J40 metrics



Clean Cities EEJ Initiative

- Encouraged Clean Cities coalition teaming arrangements to leverage local community networks

VT0 FY22 Funding Opportunity Announcement (FOA) Community Engagement-Focused Topics

FOA 2611 Vehicle Technologies Office Program Wide FOA included 2 topics specifically targeting benefits to underserved communities:

- **AOI 8: Community Engagement, Outreach, Technical Assistance, and Training in Underserved Communities**
 - DOE Objective: “to conduct community engagement, outreach, technical assistance, and training in underserved communities through partnerships with Clean Cities coalitions that advance EERE’s priority to equitably decarbonize the transportation sector.”
- **AOI 9: Community-Driven Electric Vehicle Charging Deployment in Underserved Communities**
 - DOE Objective: “to work at the community level to understand and address the issues around the deployment of electric vehicle charging stations in underserved communities and inform current and future EV charging deployment.”

Incorporating community-driven choices improves **equitable access** to advanced transportation.



AOI: Area of Interest

EERE: Office of Energy Efficiency and Renewable Energy

FY22 FOA Topic 8: Community Engagement, Outreach, Technical Assistance, and Training in Underserved Communities

Objective: conduct community engagement, outreach, technical assistance, and training in underserved communities through partnerships with Clean Cities coalitions that advance EERE's priority to equitably decarbonize the transportation sector.

Projects must include:

- **Community engagement** activities - including partnerships with organizations that represent underserved communities - that will result in community-driven strategic plans that define community goals and strategies for transportation decarbonization
- **Outreach** activities that raise awareness of plug-in electric vehicles (PEVs) and electric vehicle supply equipment (EVSE) to help spur local PEV adoption and EVSE installation in underserved communities
- **Technical assistance** activities that provide consultation services to vehicle fleets, government agencies, community-based organizations and other stakeholders regarding the deployment of alternative fuel vehicles and infrastructure
- **Workforce training** activities that provide technical training and technical education for underserved communities regarding alternative fuel vehicles and infrastructure

Requested metrics in topic writeup

- **Community Engagement Metrics** (# of organizations with a funded role in the project that represent an underserved community; Project dollars budgeted [\$] for organizations that represent an underserved community; Anticipated # of community-driven strategic plans created)
- **Outreach Metrics** (Anticipated # of outreach events; Anticipated # of people reached through outreach events)
- **Technical Assistance Metrics** (Anticipated # of fleets that receive technical assistance; Anticipated # of non-fleet organizations that receive technical assistance)
- **Workforce Training Metrics** (Anticipated # of training events for people who work in or live-in underserved communities; Project dollars budgeted [\$] for training events for people who work in or live-in underserved communities)

VTO FY22 FOA Topic 8 Project Selections*

Community Engagement, Outreach, Technical Assistance, and Training in Underserved Communities

Applicant	Project Name (DOE Share)	Clean Cities (CC) Coalition	States
American Lung Association	Supporting Transportation Electrification - Leadership, Learning, Assistance, and Resources (STELLAR) (\$2M)	Illinois Alliance for Clean Transportation	IL
CALSTART - Drive Clean Colorado	Colorado Clean Mobility Strategic Planning (\$1.8M)	Northern Colorado CC; Drive Clean Colorado	CO
Community Environmental Council	Accelerating transportation decarbonization with underserved communities in California's Central Coast and South Bay regions (\$2M)	Central Coast CC; Silicon Valley CC	CA
Northeast Energy Efficiency Partnerships Inc. (NEEP)	Community-Driven Transportation Plans for the Northeast (\$2M)	Vermont CC; Capitol CC of Connecticut; Connecticut Southwestern Area CC; Greater New Haven CC	CT, VT, NH
Regents of the University of Michigan	Michigan's Vehicle Technology Transition Impact Project (MiVTTP) (\$2M)	Michigan CC	MI
Southern Alliance for Clean Energy	Advancing Equitable Access to EVs, Infrastructure, and Jobs in Underserved Communities in Georgia (\$1.4M)	CC-Georgia	GA
Washington State University - Energy Program	Assuring Equitable Access and Building Technical Capacity for Transportation Decarbonization among Native Nations in Washington, Oregon, Idaho, and Montana (\$1.7M)	Columbia-Willamette CC; Western Washington CC; Treasure Valley CC; Yellowstone-Teton CC	WA, OR, ID, MT

*Selection for award negotiations is not a commitment by DOE to issue an award or provide funding. DOE and the applicants will first undergo a negotiation and DOE may cancel award negotiations and rescind the selection for any reason.

FY22 FOA Topic 9: Community-Driven Electric Vehicle Charging Deployment in Underserved Communities

Objective: work at the community level to understand and address the issues around the deployment of electric vehicle charging stations in underserved communities and inform EV charging deployment

Project teams should:

- Engage underserved communities to discuss how investments in EV chargers can benefit the community,
- Determine which EV charger benefits align with community priorities,
- Identify potential EV charger sites that benefit the community,
- Finalize an EV charger deployment plan with community input,
- Install EV chargers in locations that benefit the community, and
- Evaluate whether the EV chargers provided anticipated benefits.
- Summarize best practices that maximize community benefits to ensure future EV infrastructure investments can leverage these learnings.

Requested metrics in topic writeup

- **Community Engagement Metrics**
 - # of organizations with a funded role in the project who represent an underserved community;
 - Project dollars budgeted [\$] for organizations which represent an underserved community;
 - Anticipated # of community-driven EVSE Deployment Reports created)
- **EVSE Deployment Metrics**
 - Anticipated # of Level 2 EV charger installations in locations that benefit underserved communities (unit: # of charge ports)
 - Anticipated # of DC fast charge installations in locations that benefit underserved communities. (unit: # of charge ports)

VTO FY22 FOA Topic 9 Project Selections*

Community-Driven Electric Vehicle Charging Deployment in Underserved Communities

Applicant	Project Name (DOE Share)	Clean Cities (CC) Coalition	States
Alaska Energy Authority	Alaska EVSE Deployment and Best Practices in Rural and Underserved Communities (\$1.7M)	Yellowstone-Teton CC	AK
American Lung Association, Minnesota Clean Cities Coalition	Organizing and supporting under-served communities to design, implement, and use EV charging infrastructure (\$1.7M)	Minnesota CC	MN
Frontier Energy, Inc.	Engaging Neighbors about Electric Vehicles in Underserved Places (EVEN-UP) (\$1.3M)	Sacramento CC	CA
Marin Clean Energy	Charged by Public Power - Community Voices & Community Choice (\$1M)	East Bay CC	CA
Native Sun Community Power Development	Expanding Regional EVSE Access with Tribal Nations based on Community Priorities (\$1.7M)	Minnesota CC; Michigan CC; Wisconsin CC	MI, MN, WI
New York City and Lower Hudson Valley Clean Communities, Inc.	The Bronx is Breathing: Reimagining a Cleaner Hunts Point (\$1.7M)	Empire CC	NY

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VTO FOA Information Session Videos

VTO released FOA Information Session videos to help new applicants understand the process and requirements so more communities can benefit from these opportunities.

Session 1: Basics of a Vehicle Technologies Office (VTO) Funding Opportunity Announcement (FOA)

DOE staff provide an overview of the application process for a VTO FOA, including the concept paper and full application phases. Presenters also discuss the key FOA content to read and review, specific FOA language to pay close attention to, and the required components of a full FOA application. Community Benefits Plan (CBP) and Bipartisan Infrastructure Law (BIL) FOA requirements are briefly mentioned.

Session 2: Preparing a FOA Budget Justification and Other Application Components

DOE staff describe key information to know regarding FOA application components that correspond to a project budget including SF 424, allowable project costs, Budget Justification, and Cost Share. The session also touches on basic information about a project team, letters of commitment, and project Statement of Project Objectives, or SOPO.

DOE Vehicle Technologies Office (VTO) Funding Opportunity Announcement (FOA) Information Session Series

Part 1: Basics of a VTO Funding Opportunity

May 2023



Session 1: Basics of a Vehicle Technologies Office (VTO) Funding Opportunity Announcement (FOA)

Unlisted

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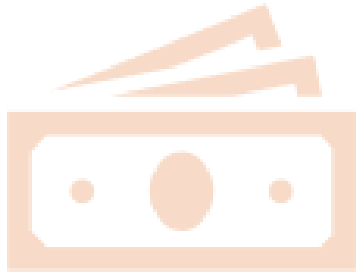
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www.energy.gov/eere/vehicles/funding-opportunities

VT0 Strategy to Maximize Benefits to Underserved Communities



Improve competitive financial assistance process

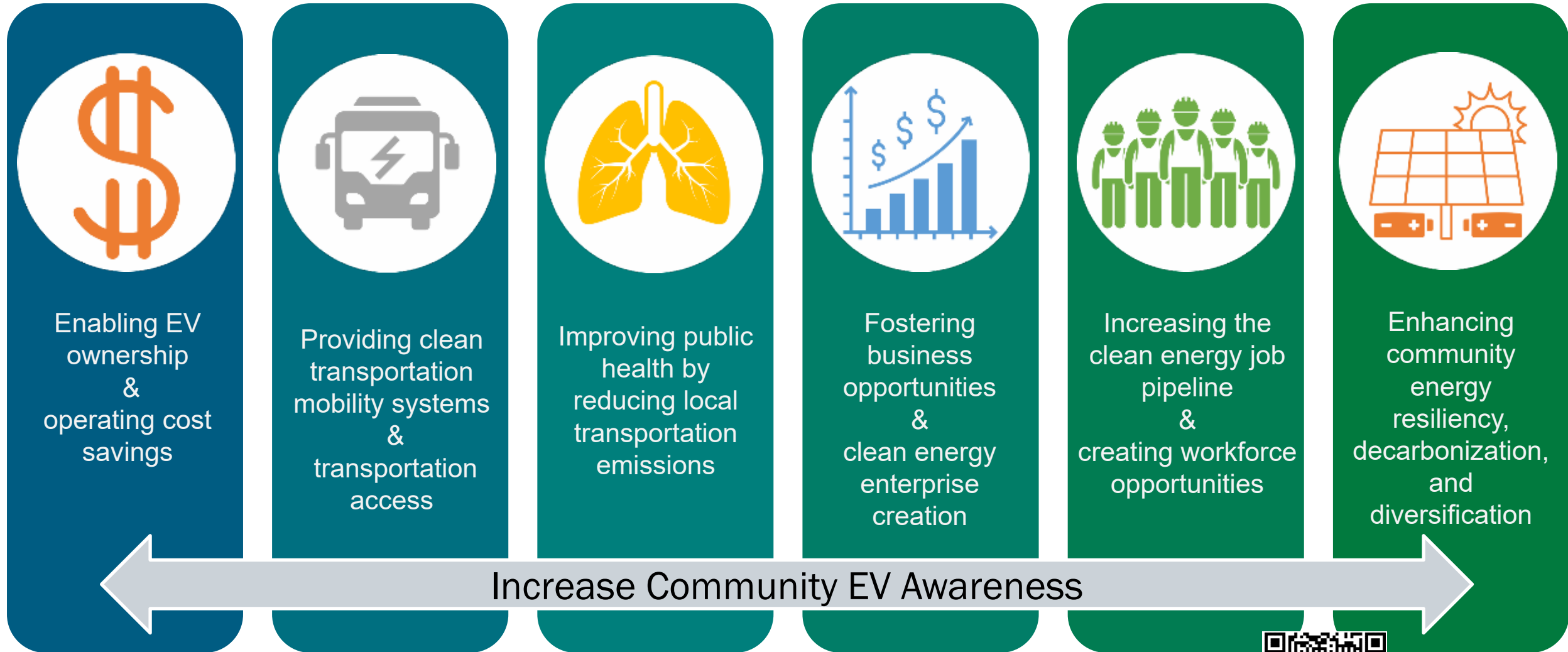


Expand reporting processes and metrics measurement capabilities



Clean Cities
Energy and Environmental Justice (EEJ) Initiative

Example J40 Community Benefits from EV Charger Investments



<https://www.anl.gov/es/electric-vehicle-charging-equity-considerations>



Example Metrics for Measuring Benefits to J40 Communities

Investments

- Amount of funding invested in work executed within a J40 Community

Energy Democracy: Stakeholder Engagement

- # of organizations with a funded role in the project who represent a J40 Community
- Amount of funding budgeted to organizations with a funded role in the project who represent a J40 Community
- # of stakeholder engagement events that include people from a J40 Community

Energy Burden: Reduction in conventional transportation fuels and transportation costs

- Net gasoline gallon equivalent reduced annually for a J40 Community
- Reduced transportation energy burden for a J40 Community

Environmental: Vehicle Emissions Reduction

- Reduction in PM 2.5, NOx, and GHG annually in a J40 Community

Clean Energy Jobs: Project Jobs & Job Training

- Amount of project funding for jobs located in a J40 Community
- \$ spent on job training events that train people who work in or live in J40 Communities
- # of job training events that train people who work in or live in J40 Communities

EV Charging Equity Considerations Webpage



Argonne
NATIONAL LABORATORY

RESEARCH WORK WITH US COMMUNITY ABOUT US

Electric Vehicle Charging Equity Considerations

Ensuring investments in electric vehicle charging benefit disadvantaged communities

Electric Vehicle Charging and the Justice40 Initiative

Many of the burdens from the transportation and energy systems have been historically and disproportionately borne by disadvantaged communities. Unequal distribution of benefits from the transportation and energy systems has prevented disadvantaged communities and minority-owned and women-owned businesses from realizing equitable benefits from these systems, while other historic barriers to transportation have made facilities inaccessible to individuals with disabilities. For these reasons, it is important to emphasize equity considerations when planning investments in electric vehicle charging stations and avoid exacerbating existing disparities in the transportation system.

The Justice40 Initiative, established in January 2021 by Presidential Executive Order 14008 on Tackling the Climate Crisis at Home and Abroad, states a goal that at least 40 percent of the overall benefits of certain Federal investments flow to disadvantaged communities (DACs). The Interim Implementation Guidance for the Justice40 Initiative, released in July 2021, identifies clean transportation as a Justice40 covered program and identifies access to electric vehicle charging stations as an example benefit of a covered program.

Electric Vehicle (EV) Charging Justice40 Map Tool

Tool Currently Being Updated (5/10/2022):
As part of DOT's work in implementing the Justice40 Initiative, the Department developed an interim definition for disadvantaged communities ("DACs") that may be used under Justice40-covered grant programs. In order to help grant applicants determine whether the locations of their proposed projects were in a DAC, the Department created a mapping tool, which went live on January 28, 2022. The Department subsequently conducted a data review and found that the mapping tool had data errors affecting approximately 1% of U.S. Census tracts. The NEVI Mapping tool is currently being updated to reflect the corrected data.

Additional background information is available at Justice40 Initiative | U.S. Department of Transportation.

Consistent with the Justice40 Interim Guidance, U.S. Department of Transportation (DOT) and U.S. Department of Energy (DOE) developed a joint interim definition of disadvantaged communities (DAC) for the National Electric Vehicle Infrastructure (NEVI) Formula Program. The joint interim definition uses publicly available data sets that capture vulnerable populations, health, transportation access and burden, energy burden, food dependence, resilience, and environmental and climate hazards. The joint interim definition for the NEVI program includes three components:

1. Combined census tracts from DOT's working DAC definition and DOE's working DAC definition (see methodology section below for more information);
2. Tribal Lands; and
3. U.S. Territories.

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If you have questions on the joint interim definition of disadvantaged communities, please contact doe-dot.j40@eere.doe.gov

DAC GIS Shopfiles
Download the DOE and DOT interim guidance DAC GIS Shopfiles.
VIEW DAC

Featured Publication
Using Mapping Tools to Prioritize Electric Vehicle Charger Benefits to Underserved Communities
VIEW TECHNICAL REPORT

Featured Webinar
Clean Cities
U.S. Department of Energy
CLEAN CITIES COALITION NETWORK
Using the EMT to Equitably Plan for Electric Vehicle Charging Stations

Interactive Map with EV Charging Corridors and Joint DOE and DOT Definition of DACs

Report on Using Mapping Tools to Prioritize EV Charger Benefits to Underserved Communities

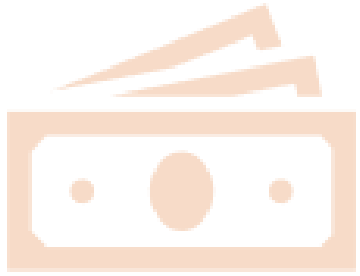
Recorded Webinar on Using the Energy Zones Mapping Tool to Equitably Plan for Electric Vehicle Charging Stations

www.anl.gov/esia/electric-vehicle-charging-equity-considerations

FY21 EV Community Partner Projects – Piloting J40 Metrics

Applicant	Project Name (DOE Share)	Project Objective	States
Tennessee Technological University	Rural Reimagined: Building an EV Ecosystem and Green Economy for Transforming Lives in Economically Distressed Appalachia (\$4M)	<ul style="list-style-type: none"> Deploy EV charging stations and demonstrate EVs in the most economically distressed regions in rural Appalachia. Information sharing, outreach, education, and workforce training 	KY, WV, OH, TN, VA
Metropolitan Energy Center	EV Market Stimulation in Divested Economies (\$5.2M)	<ul style="list-style-type: none"> Deploy fleet EVs and charging (e.g., rural and urban municipal fleets, freight yard terminal trucks) Install public and multifamily housing EV charging including engaging community-based organizations in decision making 	KS, MO
Forth	Affordable Mobility Platform (\$5M)	<ul style="list-style-type: none"> Deploy shared EVs at affordable housing sites for use by housing residents, housing staff, and the public Create training and education materials for project replicability 	NM, ID, NC, MI, NV, OR, WA, MO
Native Sun Community Power Development	Upper Midwest Inter-Tribal EV Charging Community Network (\$6.7M)	<ul style="list-style-type: none"> Demonstrate EVs through a Native-led model program including 23 Native Nations. Create fast charging corridors to connect the Tribal reservations with job centers, economic centers, and other critical services. 	ND, SD, MN

VT0 Strategy to Maximize Benefits to Underserved Communities



Improve competitive financial assistance process



Expand reporting processes and metrics measurement capabilities



U. S. Department of Energy

Clean Cities
Energy and Environmental Justice (EEJ) Initiative

Clean Cities Energy and Environmental Justice (EEJ) Initiative

Provide Clean Cities Coalitions training, resources, and funding to pursue EEJ activities



Benefit underserved communities through capacity building, community engagement, technical assistance, and training



Develop best practices for future Clean Cities EEJ activities.



cleancities.energy.gov/energy-and-environmental-justice

Clean Cities EEJ Initiative – Phases I and II in 2022

Phase I: Webinars Series open to all Clean Cities Coalitions (Spring 2022)



Understanding Energy Equity in a Brave Space



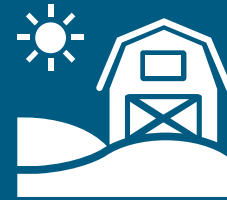
Transportation and Mobility Equity: Past, Present, Future



Mobility Equity Framework



Community-Driven Transportation Equity Solutions



Rural and Tribal Transportation



Community Engagement and Equitable Outcomes



The Role of Fleets in Underserved Communities

Phase II: Deep Dive Workshop Series for 29 Coalitions (Summer 2022)

Workshop 1
Virtual

Orientation and Visioning

Workshop 2
Chicago

Groundwork and Network Mapping

Workshop 3
Virtual

Intro to Methods, Metrics, and Tools

Workshop 4
Chicago

Community Engagement

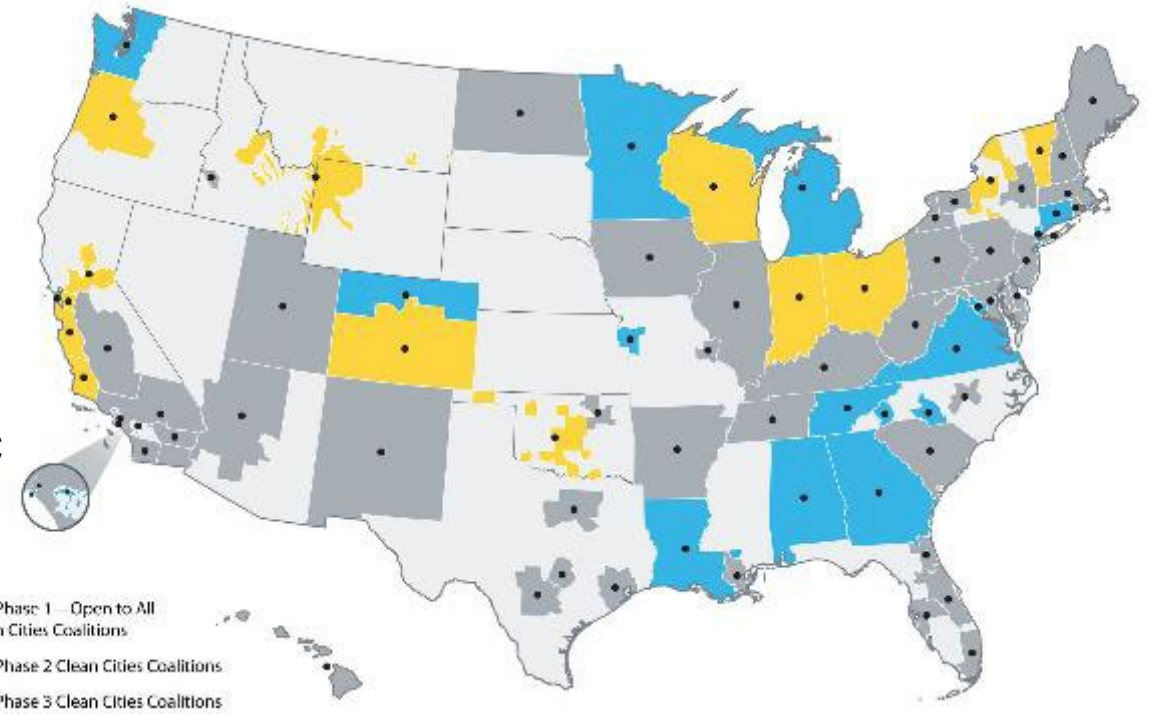
Workshop 5
Virtual

Share Out and Next Steps

Clean Cities EEJ Initiative – Phase III

17 Clean Cities Coalition Participants

1. Alabama Clean Fuels Coalition
2. Centralina Clean Fuels Coalition
3. CC Georgia
4. Connecticut Southwestern Area CC
5. East Tennessee Clean Fuels Coalition
6. Empire CC (New York)
7. Michigan CC
8. Greater Washington Region CC (DC)
9. Kansas City Regional CC
10. Land of Sky CC (Western North Carolina)
11. Long Beach CC
12. Louisiana Clean Fuels
13. Minnesota CC
14. Northern Colorado CC
15. Virginia CC
16. Western Riverside County CC
17. Western Washington CC



Internal Needs Assessment

Developing a Job Description

Hiring a Community Engagement Liaison (CEL)

Community Needs Assessment

Program and Project Planning

December 2022 – March 2023

April – September 2023



THANK YOU

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