

Category 2: Program Elements (maximum of four pages)

Company Characteristics

1. Name, contact information, company or organization that you represent.

Ravi Malhotra

ravim@icastusa.org

President and Founder, International Center for Appropriate and Sustainable Technology (ICAST)

2. An overview of your approach to equity, diversity, inclusion, and accessibility (DEIA).

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3. As applicable, a short description and a link to programming that your company is contracted or has been contracted to implement for planning, administering, and/or field delivery of federal or state programs. Note which, if any, provides low- and moderate-income and affordable home energy upgrades, especially with and in disadvantaged communities.

All of ICAST's work is with LMI and disadvantaged communities, with a primary focus on Tribal Nations and Multifamily Affordable Housing (MFAH). ICAST specifically runs the following programs, as well as has been awarded the following Federal grants (not an exhaustive list due to page-length restrictions):

State Programs

- [New Mexico's Weatherization Program](#)
- [Tennessee's Weatherization Program](#)
- [Michigan's Weatherization Program](#)

- [Connecticut's Weatherization Barrier Mediation Program](#)

Federal Programs

U.S. Department of Energy Programs

[Launching WAP 2.0 \(WAP Enhancement and Innovation\)](#)

Performance Period: 3/1/23 – 2/28/26 (3 years)

Amount Award: Federal: \$1,999,419; no cost share; Project Total: \$1,999,419

Key Partners: National Housing & Rehabilitation Association (NH&RA); National Association of State Energy Officials (NASEO); National Energy Assistance Directors' Association (NEADA); Missouri Department of Natural Resources (MO-DNR); New Mexico Mortgage Finance Authority (NM MFA); Triple Bottom Line Foundation (TBL Fund)

About: In 2022, ICAST was awarded nearly \$2M to launch WAP 2.0, an innovative redesign of the WAP for the historically underserved multifamily affordable housing (MFAH) market to simplify the intake and implementation of WAP for MFAH, while deploying state-of-the-art distributed energy resources (DERs). ICAST will implement at least three WAP 2.0 pilot projects and encourage at least one State WAP administrator to launch a WAP 2.0 program; these pilots will include the rehabilitation of housing to incorporate weatherization measures and DER resources, helping to make homes more safe, comfortable, and effective. ICAST will also conduct vital outreach about MFAH WAP programs, and the need for them to decarbonize housing, and distribute the results of its pilots help to spur the uptake of MFAH WAP throughout the country.

[Catalyzing the Mass Adoption of High Efficiency Technologies in the Multifamily Market](#)

Performance Period: 7/1/2020-6/30/2023

Amount Award: Federal: \$499,646.00; Cost Share: \$166,485; Total: \$666,131

Key Partners: Southwest Energy Efficiency Project (SWEEP), Energy Efficiency Business Coalition (EEBC), Rocky Mountain Power (RMP), Carrier Corp., Colorado Energy Office, Utah Housing Coalition, New Mexico Energy Dept.

About: In 2020, ICAST was awarded \$499,646 from the US Department of Energy to catalyze the adoption of very high-efficiency (VHE) technologies in the multifamily housing market. The multifamily housing market often installs HVAC and domestic hot water (DHW) systems to only meet minimum code requirements, which are often inadequate to meet energy efficiency targets as set out by states and localities. ICAST piloted 5 projects that implemented VHE technologies and monitored results over the course of a year. ICAST is currently wrapping up this project and has developed case studies of the 5 pilots for distribution. ICAST continues to educate MF housing owners on VHE technologies to persuade them to undertake upgrades; ICAST is also continuing its outreach to industry stakeholders and policymakers to encourage implementation of VHE technologies within building codes.

[Developing and Piloting Solar Financing Models to Expand PV Access to Low and Moderate Income Americans](#) (DOE SETO)

Performance Period: 3/15/2019 – 5/31/2023

Amount Award: Federal: \$999,935; Cost Share: \$253,964; Total: \$1,253,899

Key Partners: New Mexico Energy Office, New York Energy Office, City and County of Denver, PacificCorp Utilities, Wells Fargo, National Housing and Rehabilitation Association, Dominion, Monarch

Properties, Hawaiian Electric Company, Fort Collins Utilities, Kit Caron Electric Cooperative

About: The award is to develop an innovative financing model for community solar projects. As of 1/2023, ICAST has signed a MOU with Kit Carson Electric Cooperative and the Taos Pueblo for a 5 MW solar and 10MWh BESS project. ICAST, in collaboration with the tribal nations of the Jemez Pueblo, Zia Pueblo, Pojoaque Pueblo, Cochiti Pueblo, and others are seeking approval through an expedited process for a 10MW solar project from the New Mexico Community Solar Program. ICAST has also filed for an interconnection study for the Cochiti Pueblo with PNM (utility company that serves the Pueblo), and has also started discussions with Jemez Mountain Cooperative (JMCC) regarding 15MW of solar and 10MWh BESS to serve all seven tribes under JMCC's jurisdiction.

[Training the Next Generation of Heat Pump HVAC Technicians \(BENEFIT\)](#)

Performance Period: 10/1/2021 –3/31/25

Amount Award: Federal: \$700,000; Cost Share: \$37,000; Total: \$737,000

Key Partners: Santa Fe Community College (SFCC), Energy Efficiency Business Coalition, Carrier Corp., Ecobee, Daikin Inc.

About: ICAST has launched a pilot that consists of three components: curriculum development, on-the-job training, and curriculum dissemination; ICAST has created three 'tracks' to cover the different skill levels within the HVAC industry (entry-level trainees, mid-level, and seasoned technicians) that will receive the appropriate curriculum (developed in tandem with Santa Fe Community College) and on-the-job training depending on their skill level. The curriculum ranges from basic building science principles to the design, installation, and maintenance of cold-climate air-source heat pumps (ccASHPs).

U.S. Department of Housing and Urban Development

[Healthy Homes Production Grant – New Mexico](#)

Performance Period: 3/1/22 – 9/1/25

Amount Award: Federal: \$1,999,919.52; Cost Share: \$0; Total: \$1,999,919.52

Key Partners: New Mexico Mortgage Finance Authority (MFA), Santa Fe Community College (SFCC)

About: ICAST will address health hazards within 200 low-income homes by implementing health/safety and weatherization upgrades; these upgrades include, but are not limited to: lead hazard control, pest mitigation, ventilation (e.g., ASHRAE fans), leak repairs, electrical hazard repairs, fall prevention, HVAC and hot water system upgrades, appliance upgrades, and building shell upgrades. These upgrades will make it possible for more New Mexicans to live in more comfortable, healthier, and safer homes.

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Name: [Integrating Healthy Homes and Weatherization](#) (Healthy Homes and Weatherization Cooperative Demonstration)

Performance Period: 6/15/21 – 6/14/24

Amount Award: Federal: \$994,831; Cost Share: \$0; Total: \$994,831

Key Partners: Healthy Homes & Childhood Lead Poisoning Prevention, Kansas City Health Department; Children's Mercy – Kansas City Environmental Health Program; Missouri Department of Natural Resources, Division of Energy; Triple Bottom Line Foundation, Missouri Department of Health and Seniors Services (will help, just not full program partner)

About: The team will develop a sustainable, scalable, and coordinated model to provide retrofit upgrades to LI households living in MFAH. ICAST will target, in partnership with the Kansas City Health Department, Children's Mercy – Kansas City, and the Missouri Department of Health and Senior

Services, “hot spot” communities that have higher rates and risks of health problems (e.g. areas with higher incidents of residents with elevated blood lead levels). The model will provide guidance on how to bolster MFAH recruitment for WAP and HH programs, ways to leverage assets from both programs, and demonstrate how to cost-effectively coordinate delivery of services.

Environmental Protection Agency

[Environmental Education Initiative](#) (Environmental Education Grant – Region 8)

Performance Period: 4/1/21-3/31/23

Amount Award: Federal: \$100,000; Cost-Share: \$33,453; Total: \$133,453

Key Partners: Santa Fe Community College, Clearfield Jobs Corp Center, Groundwork Denver, Mile High Youth Academy, Utah Housing Coalition, Montana Youth Challenge Academy, Goodwill Colorado

About: ICAST is using EPA funds to create environmental educational curriculum that supports ICAST’s Green Construction Careers (GC2) program throughout EPA’s Region 8 (Colorado, Montana, the Dakotas, Utah, Wyoming). GC2 is a holistic, education to job program that provides paid training and certification opportunities in the green building and clean energy sectors to underserved populations, including low-income persons and disadvantaged youth. ICAST will develop a standardized curriculum, recruit partner organizations that work with ICAST’s target populations, and provide them educational toolkits to gain a deeper understanding of how the built environment impacts local communities. As of October 2022, has signed five NPO partners for the program, and ICAST has created a landing page for environmental educational resources [here](#).

Program Elements

4. Describe the program element that is important for State Energy Office consideration.

In alignment with the White House’s Justice40 Initiative, ICAST strongly recommends that 40% of rebates be specifically allocated to low-income (LI) communities (both single-family and multi-family properties). By doing this, rebates could be coordinated with Weatherization Assistance Program funding, a program that already has an existing and tried means of delivering energy funding to Justice40 communities. While working with groups who currently utility rebate programs may make sense for working with non-LI communities, these groups have historically not served LI households effectively with the comprehensive approach the DOE rebates require (they typically rely on free low-cost measures such as lighting and showerheads). These groups are also typically for-profit companies who will take a percentage off the top for their own institution, but this approach for LI properties will only detract from the rebate funding these disadvantaged communities could receive, especially when there are nonprofit providers with existing infrastructure that can serve this market. ICAST personally knows that it is possible to provide the 40% LI-focused rebates without requiring overhead costs, while leveraging it with other State and Federal funding – including weatherization monies.

Category 3: Indication of Vendor Interest (maximum of two pages)

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5. DOE – [Launching WAP 2.0 \(WAP Enhancement and Innovation\)](#) **Performance Period:** 3/1/23 – 2/28/26
6. DOE – [Catalyzing the Mass Adoption of High Efficiency Technologies in the Multifamily Market](#) **Performance Period:** 7/1/2020-6/30/2023
7. DOE – [Developing and Piloting Solar Financing Models to Expand PV Access to Low and Moderate Income Americans](#) (DOE SETO) **Performance Period:** 3/15/2019 – 5/31/2023
8. DOE – [Training the Next Generation of Heat Pump HVAC Technicians \(BENEFIT\)](#) **Performance Period:** 10/1/2021 – 3/31/25
9. HUD – [Healthy Homes Production Grant – New Mexico](#) **Performance Period:** 3/1/22 – 9/1/25
10. HUD – [Integrating Healthy Homes and Weatherization](#) (Healthy Homes and Weatherization Cooperative Demonstration) **Performance Period:** 6/15/21 – 6/14/24
11. EPA – [Environmental Education Initiative](#) (Environmental Education Grant – Region 8) **Performance Period:** 4/1/21-3/31/23

4. Summarize the services your company or organization could provide to a State Energy Office in the execution of these programs.

Given ICAST’s experience overseeing State Weatherization Programmatic funding, we are more than willing to be the program administrator for a 40% set-aside of the rebate funding for LI communities (both single-family and multi-family properties). Unlike groups who will run remaining funds and take a percentage off the top for their own institution, ICAST can administer the LI-focused rebates with very low overhead costs, especially in territories we have existing infrastructure (are WAP subgrantees or LI utility program administrators while simultaneously leveraging it with other State and Federal funding – including weatherization monies).