

Summary

a. Title: Project EMPOWER - Energy Modernization for People, Opportunity, Work, Equity, and Renewables

b. Community name: Alachua County, Florida

c. Community location:



Alachua County (County) is located in north-central Florida. Inside the geographic center of the County, Project EMPOWER will target marginalized communities within the Gainesville, Florida Metropolitan Area that experience extreme energy burden and poverty. The pilot project areas highlighted in purple in Figure 1:Map A will serve the following Department of Energy-qualified census tracts: 1) Eastside Alachua County--(neighborhood/area name-Greater Duval Community) a section of zip code 32601 and 32641, represented by Census Tracts 201, 202 (formerly 200), 6 and 19.02; 2) West Gainesville/Alachua County (neighborhood area names, SWAG, Linton Hill, Tower Hill) inclusive of zip codes 32611, 32607 and represented by Census Tracts 9.01, 15.15,

15.16, 15.17, 15.19, 15.22 (formerly 15.20,15.21), 22.18, 22.17. Other communities may be brought into the project scope as the Engagement Plan moves forward.

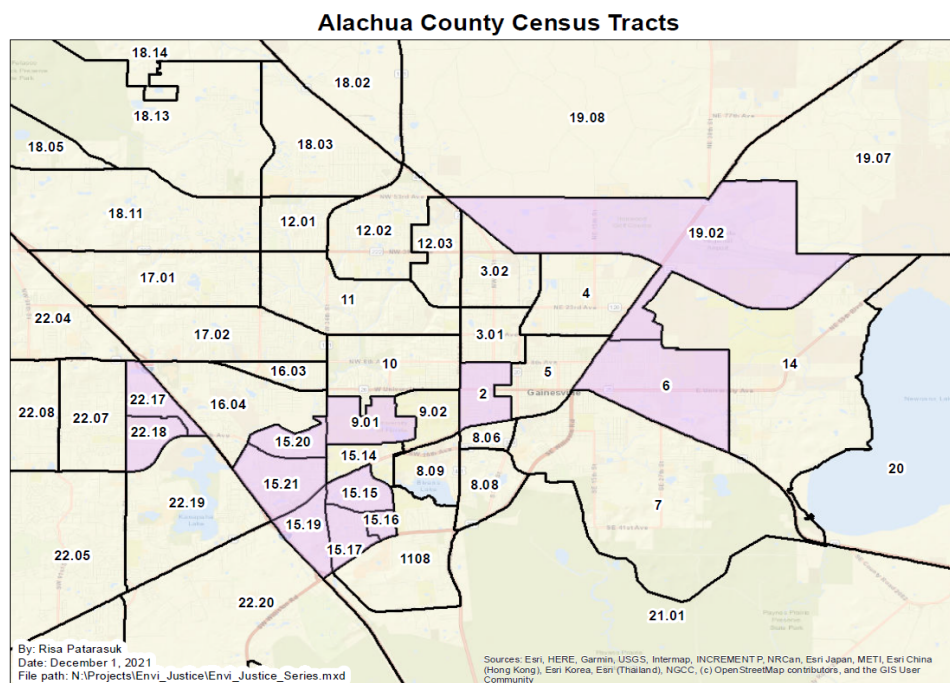


Figure1: Map A - Project EMPOWER communities in purple.

d. Contact information for the lead organization:

Sean McLendon, Economic Development & Food System Manager
County Manager's Office, Second Floor, 12 SE First Street, Gainesville, FL 32601
352 548 3765; smclendon@alachuacounty.us

e. Lead organization's mission and description:

The mission of Alachua County is to provide responsive service to all citizens and responsible stewardship of county resources for current and future generations. Alachua County (County) will serve as the unifying jurisdiction for cross-jurisdictional energy, equity, and land use issues. The County is well suited to coordinate with its municipal and non-profit project partners on a comprehensive action plan to leverage local and outside funding for future project deployment. Currently, our community has equity and community-centered concerns with utility-scale renewable energy systems that inadequately address energy justice questions. Alachua County is committed to addressing the climate crisis by aggressively transitioning to renewable energy resources. However, this policy may result in unintended consequences for marginalized and energy burdened communities. These communities may not actively participate in planning processes and land-use decisions for hosting utility-scale sites. They may also not see subsequent employment opportunities or equitable relief in their electric bills. This proposal seeks technical assistance to review these concerns so that the County's most vulnerable communities may participate and benefit from this transition. The technical assistance would also help City and County policymakers better allocate local resources into an action plan.

f. Community eligibility

Using [DOE 2021 Communities LEAP Datasets](#) for guidance, these two census blocks contain [12 census tracts](#) with at least 30% of the community at low income with a high or severe energy burden. In total, the blocks have at least 48,800 persons with an average of 70.3% (low of 52.7% and a high of 82.5%) of the population receiving incomes at or below 200% of the Federal Poverty Level, and energy burden of 6.92% (low of 6% and a high of 10%). In addition, these are environmental justice communities as indicated by increased exposure to environmental hazards, pollution, and toxicity. All 12 census tracts have five or more EPA EJScreen Indicators within the 60th percentile. The eligible area census blocks include (1) Eastern Tracts: 6, 19.02 which are adjacent to the Cabot Koppers Superfund Site (Alachua County Environmental Protection Department), (2) Central Tracts: 2 (made up of census tracts 201 and 202), which are adjacent to Depot Park, formerly a 32-acre industrial site with a variety of contamination sources in soil and groundwater that saw the excavation and remediation of 147,000 tons of contaminated soil and 40 million gallons of contaminated water (City of Gainesville), and (3) Western Tracts: 9.01, 15.15, 15.16, 15.17, 15.19, 15.20, 15.21, 22.17, 22.18. A more detailed review of these census blocks is below.

g. Abstract

With supportive technical assistance through action planning and consultative expertise, we propose to engage residents in Alachua County to work with community partners, county and city government, and our public utility to define pathways for an equitable transition to clean energy. Our team includes local partners with a strong track record in community education and engagement and service provision and key representatives of local decision-making authorities.

Our vision builds on tangible steps and commitments already taken by our community to move towards clean energy. It focuses on reducing inequitable energy burdens and increasing resilience in low-income and minority neighborhoods as a foundation for distributed solar with energy storage as part of the county's broader solar strategy. We propose to explore the potential to develop programs to:

1. Reduce energy bills for residents through expanded energy efficiency and weatherization services.
2. Develop a pathway to electrify current fossil fuel energy consumption for space and water heating systems.
3. Develop solar projects in eligible low-income neighborhoods in Alachua County by installing rooftop solar panels with energy storage backup on community centers, schools, multi-family residences, and nearby single-family homes.
4. Potentially link these solar arrays in a microgrid for resilience.
5. And incorporate youth internships as a workforce development strategy in the energy efficiency and construction process.

In a later phase, we propose to adapt these plans to address the needs of other municipalities and rural areas of the county facing inequitable energy burdens.

Energy and Economic Challenges and Opportunities

h. Community energy-related economic development challenges and opportunities

Energy and Economic Challenges - The targeted east, central, and west communities share similarities of energy burden, economic challenges, and opportunities. These areas also contain higher percentages of historically marginalized populations and communities of color than the rest of the County. The project areas' related census blocks make up the largest concentrations of persons of color within the County (54.3% Black, two or more races, Asian and Other).

Energy Burden Challenge - As with many marginalized communities of color, these two areas carry stark energy burdens. Among homes with income between 0% and 200% of the Federal Poverty Levels (FPL), the aggregate average energy burden is 16.4%, with an annual energy cost of \$2,053. These conditions are more acute for residences with incomes between 100% to 150% of the FPL, with an average 11.3% energy burden and an annual energy cost of \$2,139. For those with incomes between 0% to 100% of FPL, these numbers jump to an average of 30.5% and a yearly energy cost of \$1,932. Together, these overburdened communities consist of 10,464 homes, of which 88% are rentals. Of that high proportion of rental properties, 6,617 of them or 72% are older construction, constructed between 1960 and 1999 with an associated energy burden of 15%. Only 21% of this renter cohort is represented by newer construction (2000-2010). However, even in this new construction, the energy burden for these homes is still 14.4%. The following is a comprehensive breakdown of each of the two targeted areas demographics and energy burden by locale:

- Duval Community: Residents whose income falls between 150% and 200% of Federal Poverty Levels (FPL) experience an energy burden of 7% overall regardless of homeownership. At lower income levels these burdens increase dramatically to 11-12% (FPL 100%-150%) and 25%-24% (FPL 0% - 100%), for renters and owner-occupied structures, respectively.
- SWAG, Linton Oaks, and Tower Oaks Community: Residents with incomes between 150% and 200% of Federal Poverty Levels (FPL) experience an energy burden of 8% for renters and owner-occupied homes. At lower FPLs, these burdens increase to

11-14% (FPL 100%-150%) for renters and owner-occupied structures respectively and 1334% overall (FPL 0% - 100%).(Ma, et al.)

Utility Disconnects for Affected Communities Challenge - Residents in the Northeast (NE) and Southeast (SE) quadrants of the electric service territory were around twice as likely to have a utility disconnect. Over the past two years, residents in the NE experienced roughly 278 disconnects per thousand, and residents in the SE experienced roughly 287 disconnects per thousand compared to the system average of 159. Residents in the NW and SW experienced 121 and 155 disconnects per thousand respectively. When examining multiple disconnects (2 or more), residents in the NE and SE quadrants experienced 131 and 134 disconnects per thousand compared to the system average of 65.

Competition for Affordable and Efficient Housing Challenge - The University of Florida significantly influences the local demographics, skewing the County population ten years younger than the State to a median age of 31.8. Because of the demands of a 50,000-person campus, unoccupied units are almost 5% less than State overall numbers. Due to student housing competition, housing demand impacts homes' general availability and affordability. (Florida Office of Economic and Demographic Research). Unable to compete with student housing pricing, marginalized communities are left with less efficient properties at a higher cost. In Alachua County, over 16,500 renters between 0% and 80% AMI are cost-burdened, paying over 30% of their income for housing. (Florida Housing Data Clearinghouse). In extreme cases, more than 60% of available revenue for our two target communities may go toward housing and utility payments for these most economically disadvantaged populations. These burdens appear across the nation. However, the Southeast region has some of the highest energy burdened households (Drehobl et al.). The consequence of this is that these families cannot save for emergencies or build intergenerational wealth and must seek ongoing assistance from government services to cover basic expenses. COVID exacerbates these conditions impacting employment and income.

Compounding Economic Challenges of Food and Health Insecurity Challenge - In addition to energy burden and housing cost, these two areas are pockets of food insecurity and related health disparities. The County overall has approximately 36,000 food-insecure residents. (Feeding America). Hunger compounds avoidable health issues, such as diabetes and hypertension, in the Duval and SWAG communities. A recent analysis found that residents of Eastside County zip codes 32609 and 32641 are almost twice as likely to require emergency services than the average County resident. Compared to a predominantly white and affluent zip code, 32605, that same Eastside cohort is three times as likely to need emergency services (Dimperio 2). Hypertension risk factors are closely associated with race and food insecurity issues (obesity, salt intake, potassium deficiency, and other poor dietary options). (Mayo Clinic). In the end, these communities must make drastic choices between paying for rent, utilities, food, and essential well-being.

Residential Solar Under-Participation Challenge - There is a lack of solar energy participation in these two communities. A more detailed analysis of the GRU's residential net metering data, provided further below, shows that over 17 years, out of 472 permits for single-family scaled photovoltaic systems in the metropolitan area, only 1.9% of addresses (nine homes) in the target communities had an installation. The average system size was 5.8kW. This information is limited to residential solar permit data from 2002 to 2019 for all system installations less than 10kW in size. To alleviate these challenges, regional partnership coordination is critical (Hernandez and Bird). The County, City of Gainesville, and nonprofit partners outlined in this proposal are responding with integrated energy and housing services.

These services meet short-term needs such as utility assistance and provide long-term abatement through weatherization assistance and energy system finance assistance. The following section outlines the core opportunity areas addressed by our partnership.

Energy-related Economic Development Opportunities

Our partnership has a multi-decade commitment to energy efficiency, conservation, and renewable energy. At the broadest policy level, the City and County have a commitment to fund renewable energy and related solutions that transform energy consumption to be more efficient and carbon neutral by 2045, and with Project EMPOWER, we hope to accelerate that shift with this technical assistance. Through the partnership, we collectively commit over \$90 million in local, Federal, and private sector resources to various facets of these economic development, energy, housing, and equity questions. DOE's assistance comes at a critical juncture for our community as it seeks a coordinated action plan to build the necessary capacity around the following opportunity areas.

Renewable Energy Opportunity - In Florida, Alachua County has high renewable and solar energy generation potential. According to the National Renewable Energy Laboratory estimates, this County could generate over 93 million MWh of renewable energy per year, considering only current technology and system performance, topographic, and land-use constraints. This estimate by NREL does not contemplate market conditions (National Renewable Energy Laboratory).

The County currently hosts utility-scale renewable energy systems of a GRU-owned 102.5 MW biomass facility and an FPL-managed 74.5 MW PV solar installation ("FPL Horizon Solar Site"). There are other pending large-scale solar installations in development of equal size proposed for Alachua County. While these projects bring economic and environmental benefits, they present challenges because of community concerns related to the scale of operations, land-use change, and perceived quality of life degradation.

A core challenge of these utility-scale systems is that while they meet broader policy goals for climate change, without greater community engagement, they may fall short of equity and inclusion considerations for host communities with marginalized populations. From these challenges and opportunities, our community will craft greater utility resilience. Utility resilience is defined as the ability of electrical systems to recover from unpredictable and extreme weather events quickly. Redundancy, flexibility, and multiple and varying generation fuel sources (including renewables) are significant contributors to resiliency. It is a driving factor for successful utilities. Its execution should be inclusive of all communities' needs. The burdens and benefits are proportionally shared in response to the climate crisis.

Streamlining Solar Permitting and Reducing Soft Costs - In 2019, Alachua County earned a [SolSmart](#) Silver award making it faster, easier, and more affordable for homes and businesses to go solar. For companies looking to expand, a SolSmart Silver designation signals that Alachua County is "open for solar business." Local governments change their processes to reduce the time and money it takes to install a solar energy system to receive the award.

Microgrid Opportunity - GRU owns an 11.5 MW microgrid at UF Health's South Campus (stand-alone South Energy Center (SEC)). The SEC offers all primary electric power, emergency power, hot water, and steam required at the UF Health Shands Cancer Hospital, UF Health Shands Critical Care Center, UF Health Heart & Vascular, and the UF Health Neuromedicine Hospital. This innovative system can completely separate from the rest of the electric grid during inclement weather or grid events and supply 100% of the facility's energy

needs. As part of its 2020-2030 Energy and Utility Policy, the City Commission also charges GRU to review how future microgrid projects contribute to grid stability and overall system efficiency. DOE may call upon this experience in crafting a local action plan for the proposed smaller community center scaled microgrids.

Florida's regulatory environment allows for innovative smaller-scaled microgrids that support greater community resilience. Florida Power & Light (FPL), Tampa Electric, Gulf Light Power (FPL owned) are all piloting various combinations of solar-powered microgrids with energy storage (Wood). Given the need for greater infrastructure resilience and the solar energy potential in Florida, our County is a prime location to develop smaller-scaled systems.

Potential Workforce Development Approach - Locally, the ACB (Achieve, Conquer, Believe) Excel Program is a Santa Fe College initiative (with broad support in the community) that offers a two-generation avenue for both parents and their school-aged children to engage in academic and social activities simultaneously. While parents are working towards a career certificate that will potentially lead to future employment, their children receive enriching supervision in an Alachua County School Board facility. There is zero cost to the families for this program. Its design addresses educational and family needs in the local community while propelling individuals into high-wage, in-demand jobs. There is potential for this program to be utilized in the future to train individuals in career opportunities that revolve around the implementation of energy-efficient improvements within marginalized communities.

Alachua County also supports complementary regional vocational training for renewable energy installation. The County is part of an EDA Good Jobs Challenge Grant application consortium effort. This program helps train new electrical apprentices and journeymen to meet the growing demand for photovoltaic and electric vehicle charging station installations. Recruitment efforts are focused on equity and will increase application to the apprenticeship program by underserved populations, which will increase underserved populations' representation in the electrician workforce and small business ownership.

Community Efforts to Address Energy Burden and Equity - Through various programs and funding sources, the Partnership has committed over \$90 million in funding to address the challenges of energy burden and equity pending input from the DOE. There are significant opportunities for synergy, collaboration, and other environmental benefits across the following sectors under a DOE Action Plan:

County Utility and Rental Assistance Funds - The County has had modest resources in the past to address the utility and rental assistance needs of low-income residents. With American Recovery Plan funds, the County is making available \$9.7 million to support these needs. As of December 2021, 40% of the award was allocated. (Alachua County)

Energy Efficiency and Renewable Energy Finance and Assistance Programs

GRU LEEP - GRU's Low-income Energy Efficiency Program has completed efficiency upgrades to over 1800 homes since 2007, investing nearly \$7.2 million. This program assists low-income customers with home improvements that can lower their electric bills, prevent heat-related illness, and reduce energy use. Eligible participants work with GRU to determine the improvements that best suit their homes, such as upgrades to central air conditioning and heating systems, servicing central air conditioning systems, replacing room air conditioners with high-efficiency units, repairing leaky ducts, installing additional insulation, and replacing the water heater.

GRU Net Metering (NEM) - GRU allows NEM customers the opportunity to offset up to 100% of their consumption. GRU net metering model is based on the Florida Public Service Commission's net metering model. GRU gives full retail credit for energy exported to our distribution system. GRU has 692 residential net metering customers with an installed capacity of 5.5 MW. Only 30% of these systems occur in the Northeast, Southeast, and Southwest quadrants, where our targeted communities are located. With this analysis, there is an opportunity to enhance solar participation in these underserved areas.

Property Assessed Clean Energy Finance - [Property Assessed Clean Energy Finance](#) (PACE) started in the County in 2015. Since then, 290 PACE assessments have been taken representing \$4.2 million in building envelope, energy, and solar energy improvements.

Home Energy Tune-ups Since 2008, the Community Weatherization Coalition has carried out nearly 1400 home energy/water surveys as a free service to the occupant. The County has invested \$78,590, and the City/GRU has invested \$446,118 in this program.

Economic Development and Utility Assistance Sources of Funding

We have local funding sources that can act as matching and complementary funding to move pilot projects to full-scale deployment:

- County Gainesville Metropolitan Area Reinvestment Funds **\$5.5 Million**. (local source)
- City of Gainesville Community Reinvestment Area **\$70 Million** (local source)
- City of Gainesville Utility Debt Assistance **\$250,000** (ARPA)
- City of Gainesville Housing Rehabilitation and Energy Efficiency **\$2.9 Million** (ARPA)
- Alachua County Housing Rehabilitation and Energy Efficiency **\$3 Million** (ARPA)

i. Pathways of interest for clean energy-related economic development

Renewable Energy Planning and Development - With the City of Gainesville's resolution to achieve net-zero emissions by 2045, GRU is actively developing plans to increase renewable energy. GRU is beginning an Integrated Resource Plan that will take a holistic approach to generation planning and development focusing on sustainability, costs, and social impact.

Energy Efficient Buildings and Beneficial Electrification Planning and Investment - The opportunity exists within our community and utility space to combine energy-efficient buildings with vigorous electrification of fossil-fueled systems in our homes. Converting space and water heating needs to electrically driven heat pumps will accelerate the reduction in methane consumption. The increased electricity consumption will be counterbalanced by making our buildings more energy-efficient. Gainesville and the surrounding utility area are ideal, even unique, areas where both of these goals can be addressed.

Community Resilience Microgrids - There is tremendous opportunity in the deployment of microgrids for distributed generation. Placing energy closer to the end of use lowers costs for upkeep and distribution. Microgrids are a benefit during and after inclement weather, including hurricanes. The restoration time is potentially lower and will ultimately aid in the quick recovery of communities after natural disasters and weather-related events. Both factors dramatically increase the resiliency of communities and provide benefits for all customers.

j. Launch Track

Alachua County-wide, there are significant investments into a clean energy transition. Through Project EMPOWER and DOE assistance, we will pursue the next leap forward.

k. Community background

Alachua County is a 969 square mile community with a rural heritage and cosmopolitan heart located in North Central Florida. It is home to the University of Florida (UF), with Gainesville serving as the County Seat. The County's 2020 population was 278,468, a 14.6% growth from 2010 estimates (Florida Office of Economic and Demographic Research). The County and City of Gainesville are employment centers for the surrounding region, and the rise of this community is tied to the economic impact of higher education. The environment is a community priority with State-owned, State-managed, and County conservation lands totaling over 155,000 acres protected (Florida Office of Economic and Demographic Research). Energy conservation and renewable energy are also priorities. Since 2008, Alachua County has supported related strategic policies within its Comprehensive Plan Energy Element that seek to: "Reduce greenhouse gas emissions and fossil fuel consumption; mitigate the effects of rising energy costs; and promote the long-term economic security of Alachua County through energy conservation, energy efficiency, and renewable energy production" (Alachua County Board of County Commissioners).

The Greater Duval neighborhood, one of the first single-family African American neighborhoods in Gainesville, built in the 1960s, has been identified as one of Gainesville's most economically challenged neighborhoods. Issues like high crime rates and recent murders add to the persistent lack of employment, lack of transportation, affordable housing options, excessive energy burdens, and low incomes based on an \$8.48 minimum wage. The lack of affordable, energy-efficient housing is a keystone issue. Annual incomes average less than \$35,000 while the rental of two-bedroom homes average \$1300/month. Most residents cannot afford much of the available "affordable" housing in Alachua County and are forced to occupy older, less energy-efficient houses. Because of their aging electrical and plumbing systems, these homes have been ineligible to receive upgrade measures: water pressure cannot be increased because it might burst older pipes in homes, and there have been no electrical upgrades in Duval since 1974. The Greater Duval Neighborhood Association has been in existence since 2013, supporting community projects for youth and elders.

Southwest Advocacy Group (SWAG) is the name of a Gainesville metropolitan area non-profit and the informal name for the most westerly census tracts to be explored with DOE's assistance. The SWAG is a conglomeration of low-income housing blocks with a high proportion of section-8 housing assistance. The past twenty years have brought a double-digit increase in marginalized populations with greater economic disparities. The influx of low-income residents created a concentration of poverty and social service needs. It ranks as one of the highest concentrations of crime, child maltreatment, family violence, and health disparities in the County. These factors contribute to a lack of youth recreation opportunities and limited transportation options to outside services. In response, the non-profit SWAG was created to address these needs. They recruited County assistance in building a family resource center that acts as a hub for social service and community engagement for targeted neighborhood investments.

Background on the Municipal Utility - Gainesville Regional Utilities (GRU) operates a fully vertically-integrated 630 MW electric power production, transmission, and distribution system

and is wholly owned by the City of Gainesville. In addition to retail electric service, GRU also provides wholesale electric service to the City of Alachua (Alachua) and transmission service to Seminole Electric Cooperative (Seminole). GRU's distribution system served its retail territory of approximately 124 square miles and an average of 99,714 customers during 2020. It has been at the forefront of renewable energy deployment and is one of the first utilities in North America to offer a Feed-In-Tariff (FIT) for solar energy. This early attempt to jump-start solar was a success which saw all 20-year agreements subscribed (Gainesville Regional Utilities). All FIT agreements total over 18.5 MW. Solar energy is still encouraged through net metering, and as of 2021, there is an additional approximately 11.8 MW installed under this method (Verschage, P.E. 1). GRU is considered a leader in environmental stewardship and renewable energy. Last year, GRU sourced over 20% of its generation needs from renewable energy sources. The average across the southeast was around 6%.

Relationships with State, Local, Private, Academic, and Non-governmental Partners - The Project EMPOWER collaborative represents several decades of partner-based activities that combine to focus on energy and climate resilience in Alachua County. Within the purview of several municipal committees, our County and City government, including our public utility, already collaborate on climate planning processes, with input and support from crucial citizens. These committees include the Alachua County Citizens Climate Advisory Committee (CCAC) and the City of Gainesville Utility Advisory Board (UAB). Their missions focus on the transition to clean energy and energy and climate equity. Our municipal utility affords us unique advantages due to the alignment of local government and utility goals. Alachua County is the economic and employment hub of the North Central Florida region with access to solid research, higher education, vocational, community, and workforce partners. Additionally, two existing community team partnerships guide Project EMPOWER. These are the local branches of the National Association for the Advancement of Colored People's Environmental and Climate Justice Committee (NAACP ECJC) and the Community Weatherization Coalition (CWC). Both committees represent a coalition of existing and enduring partnerships.

The NAACP ECJC is a broad coalition of local partners such as The League of Women Voters, Sierra Club, Gainesville's Zero Waste Initiative, Florida Defenders of the Environment, Climate Reality Project, Citizens Climate Lobby, Climate Leadership group, Alachua County Labor Coalition, Interfaith Climate Alliance and the Unitarian Universalist committee. NAACP ECJC also has strong connections to student organizations at the University of Florida (UF), Santa Fe College, and Young Leaders of Wild Florida.

The CWC is a volunteer group of citizens and organizations. It has long-term support and funding from local government partners: the City of Gainesville, Alachua County, as well as active, long-standing partnerships with affiliated research and training programs at UF's Office of Sustainability, the UF Program for Resource Efficient Communities (PREC), and Sustainability and the UF Built Environment program (SBE). The CWC is expanding equitable energy efficiency programs throughout the State region through a formal agreement with the IFAS County Extension program of the University of Florida.

Transformative Impact of Requested Technical Assistance

I. Technical assistance needed to launch a clean energy-related economic development transition

Statement of Community's Objectives/Commitment to a Clean-Energy Economic Development Transition - Project EMPOWER requires technical assistance that synergizes our current efforts and moves Alachua County forward to launch a clean energy-related economic development transition. Our community has committed to a clean energy transition. Most notably, Alachua County has a declared goal to be 100% renewable energy powered by 2030 (Alachua County Board of County Commissioners), and our public utility goal is for 2045 (Gainesville Regional Utilities). We seek technical assistance to meet these goals with an explicit focus on equity by reducing inequitable energy burdens while increasing utility resilience in low-income neighborhoods that are racial and ethnically diverse. Ideally, this would be through a combination of pathways to renewable energy planning and development, energy-efficient buildings and beneficial electrification planning and investment, and the potential for community resilience microgrids. We have local funding sources that can match other resources to move pilot projects to full-scale development.

DOE Support Needed to Launch Project EMPOWER - Our technical assistance needs include a rigorous analysis of the impacts of different types of interventions to guide priority investments. Technical assistance is required to assist Project EMPOWER in identifying cost-effective weatherization efforts, high value/effectiveness upgrades, appropriate distributed solar strategy, how to integrate efficiency, electrification, distributed solar, energy storage, and load control for maximum energy burden relief and maximum grid stability, the potential for community microgrids, and community roles in ownership or operation of the technologies, best practices for youth workforce development strategies for green economy jobs, and financing options to implement these measures, long-term plans for maintenance and operations and examples of lessons learned from similar initiatives in other places. We request DOE's assistance with the following Launch related activities and analysis.

- Engage the broader community and raise awareness of the importance of energy conservation, clean energy, and climate resilience among low-income and minorities.
- Strengthen community engagement in decision-making to provide locally-developed parameters for renewable energy projects, including benefits, costs, and siting of distributed and utility-scale solar that offers environmental, economic, and social benefits.
- Reduce the inequitable energy burden of our low-income citizens, and improve comfort, indoor environmental quality, health, and safety, by focusing first on expanding weatherization activities appropriate for North Central Florida.
- Reduce pressure on scarce income of vulnerable households (elderly, children, veterans, and others), freeing household budgets for other needs such as food, health care, and transportation, and reduce overall poverty
- Target appliance replacement/upgrades to bring energy efficiency into a previously poorly served population. The secondary goal of this activity is to begin to electrify residential energy use previously served by the direct use of fossil fuels.
- Implement distributed solar programs in low-income and minority neighborhoods in ways designed to avoid barriers due to lack of capital as part of our larger solar strategy. Areas within our county will target legacy, heirs, and generational homes, as well as multi-family structures. Adjacent community centers will be explored.

- Explore the enhancements to neighborhood resilience during electric outages via microgrids
- Expand vocational jobs skills and training for green energy jobs in system installation and management, efficiency, and building envelope improvements
- Enhance community-wide collaboration to foster innovative and equitable energy & housing affordability policies and programs for low-income residents
- How to craft an extensive energy-related survey designed to help the community decide which homes/buildings are best suited for distributed PV and electrification of appliances

How Technical Assistance Helps the Community Address Energy and Economic Development Challenges and Opportunities - This analysis will include consideration of existing line loads, the potential for peak shaving, and other issues related to integrating distributed solar into the energy grid. Research of the suitability for neighborhood-level microgrids (including the regulatory, technical, and financial barriers and opportunities): smart meters, distributed solar, and energy storage centered on community centers as possible distribution nodes. We need DOE technical assistance support on community engagement questions. These will include building envelope improvements to the correct size of distributed solar and battery investments, potential location, size and composition of microgrids, and how best to match renewable energy and storage to the grid to meet community loads at the lowest cost. Assistance is needed in planning vocational outreach and job opportunities in marginalized communities, including the collaboration and participation of local entities such as higher education institutions and Workforce Boards. Our proposal focuses on eligible neighborhoods in the Gainesville Regional Utilities service territory. Alachua County wishes to see these benefits extended to all marginalized and energy burdened communities regardless of the utility provider. DoE's assistance will be a template to tailor the technical needs in other utility areas in the County to meet the same energy objectives.

m. Anticipated community-wide engagement and benefits

Engagement Plan - The comprehensive community-government partnerships represented in the Project EMPOWER team provide a strong basis for an equitable pathway towards clean energy in Alachua County. The team will provide regular updates and requests for input from the Alachua County Board of County Commissioners, the Gainesville City Commission, and relevant citizen committees. Each government represented also has community engagement staff and programs and will collaborate with the community partners to carry out a comprehensive program of community engagement to support the development of a plan.

The NAACP ECJC will lead this community engagement effort through an ***Engagement Plan***, building on previous successful community engagement programs through the organization of five previous community forums since 2018, focused on key issues of energy, food, climate, housing, and equitable transitions to clean energy. The purpose of these community events is to provide information in accessible ways and to promote discussion of concrete solutions for our community. Each event engaged people through a combination of dynamic speakers (both local and outside "name" experts), cultural events (music and poetry), and facilitated small group discussions guided by concrete questions focused on clearly-defined issues.

A 2020 virtual workshop focused on Affordable Housing brought together over 30 targeted participants from the private sector, city and county housing departments, and nonprofits, including the Gainesville Neighborhood Housing Development Corporation (NHDC), Alachua

Habitat for Humanity, GRU's LEEP*plus*, and RTNCF. These partners will be important in developing proposed energy efficiency and weatherization efforts as part of our action plan. This DOE proposal emerged directly from the discussions launched among over 70 participants in the most recent (September, 2021) County Wide Forum that focused on an equitable transition to clean energy in our county, with small group discussion led by knowledgeable facilitators and equity experts. This track record of success will provide the basis for a combination of community-wide and targeted community engagement events to regularly inform the broader community about the development of our plan and solicit regular input as plans move forward. These community engagement events will be in-person if permitted by Covid-19 trends but can also include virtual meetings. We will identify representatives of specific neighborhoods and target groups (such as elders) to provide ongoing input into project planning activities. Key themes to be explored will include *energy efficiency/weatherization; solar/clean energy; resilience (storms, flooding, climate change); and green economy jobs*.

Targeted outreach to African-American communities will include distribution of flyers house-to-house in key neighborhoods and advertisement in print and radio outlets oriented to this audience. These strategies have worked well for previous NAACP ECJC events. We will also develop outreach strategies specifically to Spanish-speaking communities, building on the CWC program that has focused on translating home energy and water efficiency materials and videos into Spanish. We also propose specific outreach efforts to engage youth in discussions of the proposed activities of the grant, drawing on student partnerships.

Economic Opportunities for the Community and Communities of Color - Equitably proportioned utility bills will free up household capital for food, medicine, and education needs in marginalized communities. Improved building envelopes will enhance neighborhoods' livability, helping families build equity and transfer wealth between generations. Job training and active participation in technology, vision, analysis, and disposition will bring greater diversity and participation in the new energy economy. In addition to the community outreach strategies in the ***Engagement Plan***, the CWC will continue its focus on the ***positive community impacts*** for household-level education of low-income and residents of color regarding home energy and water conservation and empowerment to improve the efficiency of their homes. The annual savings in utility bills for homes served by the CWC averaged \$255/household. These savings persisted and even increased over the following 5-6 years. This translated to hundreds of thousands of dollars in the pockets of local low-income residents. Homes also conserved 6,200 gallons of water per home and 1,657 kWh of energy each year following CWC services. The CWC has a focus on the Greater Duval community. Home energy/water tune-ups in 103 homes in this neighborhood resulted in an average yearly savings of \$313 per home.

Community Stakeholder Engagement, Improving Historically Under-Served Communities, and Opportunities for Diversity, Equity, and Inclusion (DEI), – these are detailed in the *Engagement Plan* outlined in part (m).

Team Composition

n. Multi-stakeholder team:

NAACP Environmental and Climate Justice Committee (ECJC); Alachua County (County); City of Gainesville-Gainesville Regional Utilities (GRU); Gainesville Community Reinvestment Area (GCRA) and Economic Development and Innovation Department; Community Weatherization Coalition/Rebuilding Together North Central Florida (CWC/RTNCF).

o. Organization Descriptions:

The Alachua County Board of County Commissioners' mission is to provide responsive service to citizens and responsible stewardship of county resources for current and future generations. The County is responsible for community-wide equity, energy, environmental policy, and overall social services. Our Board has a commitment to addressing climate change with renewable energy systems through land use policy. The County is also responsible for economic development initiatives and vocational training via its CareerSource North Central Florida workforce board. Alachua County is actively supporting infrastructure and social service improvements to the western SWAG community. The County's role is to act as the lead organization and DOE's primary contact for workforce development.

The Alachua County NAACP Environment & Climate Justice Committee, founded in 2017, is chaired by NKwanda Jah and is comprised of dozens of members representing various local environmental and political organizations. This coalition of local justice advocates and environmentalists supports initiatives favoring the transition to clean energy, zero waste, water conservation, and many other local issues. In 2017-2018 the group supported a commitment to 100% Clean Energy by the County and City governments. Alachua County NAACP ECJC member John Nix will serve as the primary community representative contact to participate in the technical assistance engagement. The NAACP ECJC is represented on the Project EMPOWER team by a sub-committee composed of Chair NKwanda Jah and five additional members. They collectively represent several local environmental groups, citizen advisory committees, and the School Board. Their role will be to act as the focal point for the **Engagement Plan** to ensure that under-served communities are included in the analysis and final work product.

The Community Weatherization Coalition's mission is to help neighbors reduce the cost of their home energy and water bills by engaging volunteers, building community, and learning together. The CWC operates under our fiscal sponsor Rebuilding Together of North Central Florida (RTNCF), a 501(c)(3) organization. The CWC has two employees and 50 volunteers. CWC Emeritus Board Member Wendell Porter will serve as the primary contact to participate in the technical assistance engagement. The CWC/RTNCF is also represented on the Project EMPOWER team by Dr. Marianne Schmink (founding member and volunteer and Advisory Board President). Their role will be to bring low-income utility residents' needs into the Project EMPOWER design.

Gainesville Regional Utilities (GRU) - GRU's mission is to provide safe, reliable, competitively priced utility services in an environmentally responsible manner that will actively contribute to the enhancement of the quality of life in our community. GRU's application team's role is to provide utility technical expertise and capital investment coordination in the community. GRU's approximately 850 employees operate and maintain four power plants and 1,450 miles of power lines, in addition to two wastewater treatment plants, a water treatment plant, and telecommunications division.

Gainesville Community Reinvestment Area (GCRA) - Governed by the City of Gainesville, the GCRA's mission is to: Invest in previously underserved areas of Gainesville, revitalize the urban core, improve the quality of life of our neighbors, and support our local economy – most importantly our small, local, and diverse businesses. It is actively involved in a ten-year \$70 million redevelopment and economic reinvestment in impoverished communities, including the Greater Duval area. The GCRA will collaborate by incorporating Project EMPOWER proposals into these programs.

p. Primary Contacts:

Alachua County - **Sean McLendon**, Economic and Food Systems Manager, Alachua County
NAACP ECJC - **John Nix**, Energy Conservation Specialist, Alachua County School Board
CWC/RTNCF - **Wendell Porter**, Ph.D., CWC Emeritus Board Member
Gainesville Regional Utilities - **Eric Walters**, Director of Administration and Fuels Operations
Gainesville Community Reinvestment Area (GCRA) - **Sarah Vidal**, GCRA Director

q. Local Government Entities on the Team:

Alachua County Board of County Commissioners, Alachua County Florida
City of Gainesville, Florida

r. Team Authority and Influence:

This project has the consent and support of Alachua County Commission, Gainesville City Commission, Gainesville Regional Utilities, NAACP ECJC, and CWC/RTNCF, representing a broad cross-section of policy and funding authority, community insight and trust, and utility expertise. This collaborative partnership has invested tens of millions of local funds into climate change policies supporting renewable energy solutions over the past two decades. We are prepared to support DOE's efforts to provide technical assistance that will guide us in our next round of meeting these community goals and objectives.

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