



Prioritizing Equity in Program Development: How to Build a Resilient Power Technical Assistance Fund

April 23, 2024

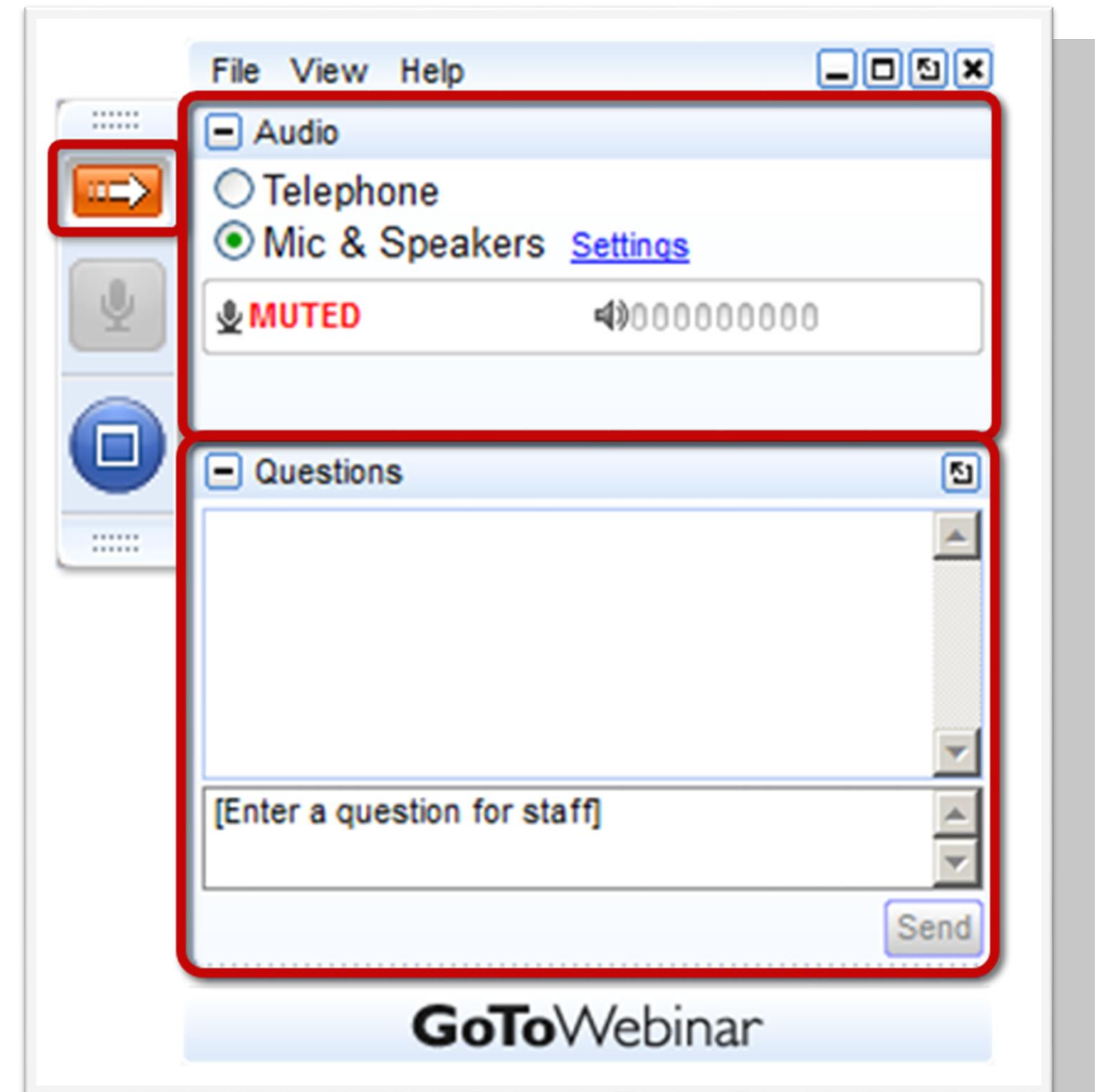
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Affordable, reliable, clean energy for all.



**Climate Resilience and
Community Health**



**Distributed Energy Access
and Equity**



**Energy Storage and Flexible
Demand**



Fossil Fuel Replacement

Resilient Power Project

Building the foundation for energy resilient communities.

USDN | urban sustainability directors network

footprintproject.org™

AMERICAN MICROGRID SOLUTIONS



ELEVATE



GEMINI ENERGY SOLUTIONS



Rooftop solar installation in Dorchester, MA. Credit: Resonant Energy

Webinar Speakers

*Prioritizing Equity in Program Development:
How to Build a Resilient Power Technical Assistance Fund*



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Upcoming Webinars

- **Battery Storage for Fossil-Fueled Peaker Power Plant Replacement: A Maine Case Study** (April 30)
- **Equity Strategies for LA's 100% Clean Energy Transition** (May 2)
- **Micro-Financing and Locally Led Development: A Scalable Model for Resilient Power in Rural Communities** (May 16)
- **Energy Storage Interconnection – Challenges and Solutions** (May 21)

Read more and register at www.cleangroup.org/webinars



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Clean Energy Group's Technical Assistance Fund for Resilient Power



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RESILIENT POWER TECHNICAL ASSISTANCE FUND

Providing technical support to build local resilience



Provided over **\$1.5 million in funding** for communities to evaluate resilient solar+storage at essential community-serving facilities.



“With our Technical Assistance Fund grant, our small grassroots non-profit was able to hire a local consultant to work with us on finding a low-budget solar+storage system for our small food hub in a rural community highly impacted by Hurricane María.”



*Tara Rodriguez Besosa
Co-founder of El Departamento de la Comida, Puerto Rico
TAF Awardee 2019*

DONATE or APPLY for an award:

www.cleangroup.org/initiatives/technical-assistance-fund

Clean Energy Group Technical Assistance Fund

- Supports the development of clean energy projects aimed at decreasing energy burdens and increasing resiliency.
- Funds preliminary technical and financial feasibility analyses. Grants range from \$5,000 - \$15,000 depending on scope of project.
- Connects organizations to trusted allies who can provide independent background on solar+storage.
- Builds resilient power awareness and capacity in historically underserved communities.

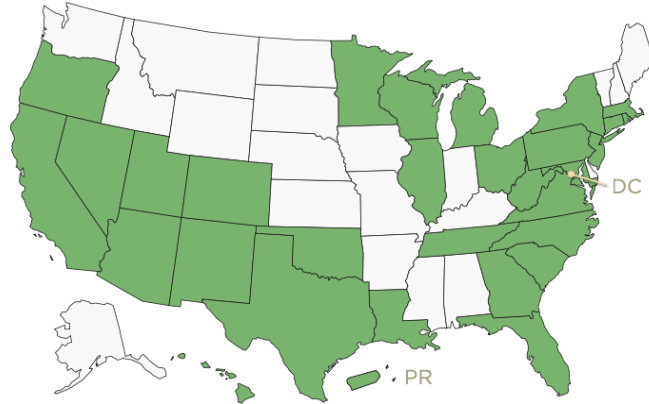


TECHNICAL ASSISTANCE FUND IMPACTS, 2014 - 2023

**\$1.7 million
in Grant Awards**



**32 States
and Territories**



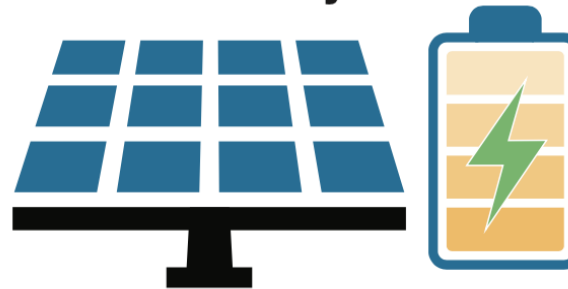
**Over 150 Community
Service Partners**



**3,000 Affordable
Housing Units**



**60 Completed
Projects**



**309
Community Facilities**



Clean Energy Group is a proud member of the Community Power Coalition, selected to receive **\$249.3 million** through EPA's Solar for All program

Building a movement of community-based solar developers who deliver significant benefits to low-income and disadvantaged communities



INCLUSIVE
PROSPERITY CAPITAL™



CleanEnergy
Group

History of the Technical Assistance Fund

Establishing a Technical Assistance Program

Identifying the Need

- Where are the gaps in the resilient, renewable energy development and why?

Defining our Role

- How can Clean Energy Group support resilient power development that serves marginalized communities?

Staffing

- Building a TA Team, internally and with necessary partners
 - Engineers to conduct assessments

Foundation Support



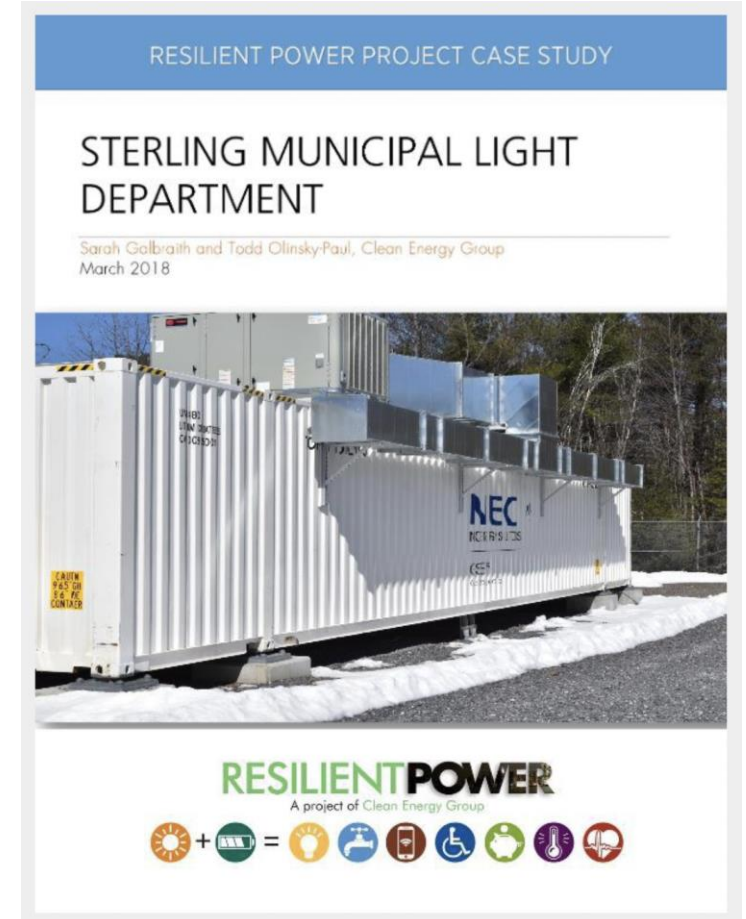
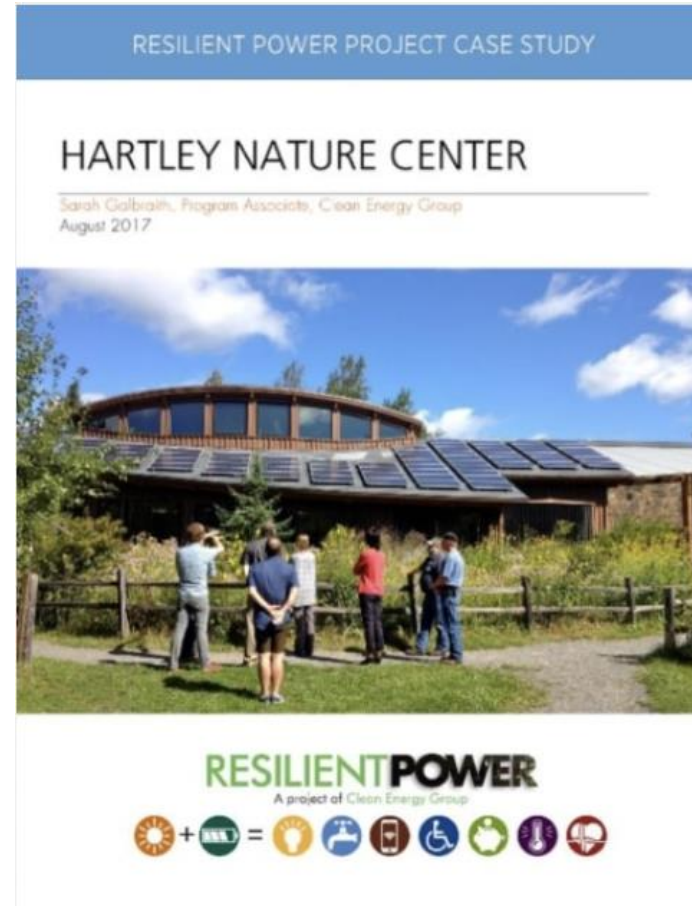
Early Partners and Awardees

Utilizing Existing Partnerships:

- Affordable Housing
- Municipalities

Knowledge Building

- Developing case studies and informational materials
- Amplifying partners voices



Determining Program Eligibility

What is a "Critical/Community Service Provider?"

TAF facility eligibility includes traditional "service providers", as well as how each community defines "service provider".

Can include:

- Community centers
- First responders
- Emergency shelters
- Cooling centers, affordable housing, food pantries, fire departments, health clinics



Focused Outreach

Ensuring those that need the support are receiving it

Evaluating who is being served and developing an outreach plan to address gaps

Ensure access to:

- BIPOC-led organizations
- Native Nations
- Indigenous Peoples

Build relationships with:

- Coalitions
- Grassroots organizations
- Engineers



Ensure Equitable Distribution of Funds: Establishing a Goal

Research indicates BIPOC-led organizations receive fewer philanthropic funds

- Out of \$1.34 billion disbursed over two years, **only 1.3%** (or \$18 million) was awarded to communities of color, low-income communities, and Tribal and Indigenous groups.
- \$11 million was awarded to ‘environmental justice activities’, but **only nine percent** of that funding went to environmental justice organizations
- [Source](#)



Technical Assistance Fund Goal

50% of annual TAF awards to advance the work of organizations led by Black, Indigenous, and People of Color (BIPOC)

2022 IMPACT OF CLEAN ENERGY GROUP'S TECHNICAL ASSISTANCE FUND AND RESILIENT POWER LEADERSHIP INITIATIVE PROGRAMS



Developing a Technical Assistance Fund Program with Partners

Case Study: CT Green Bank

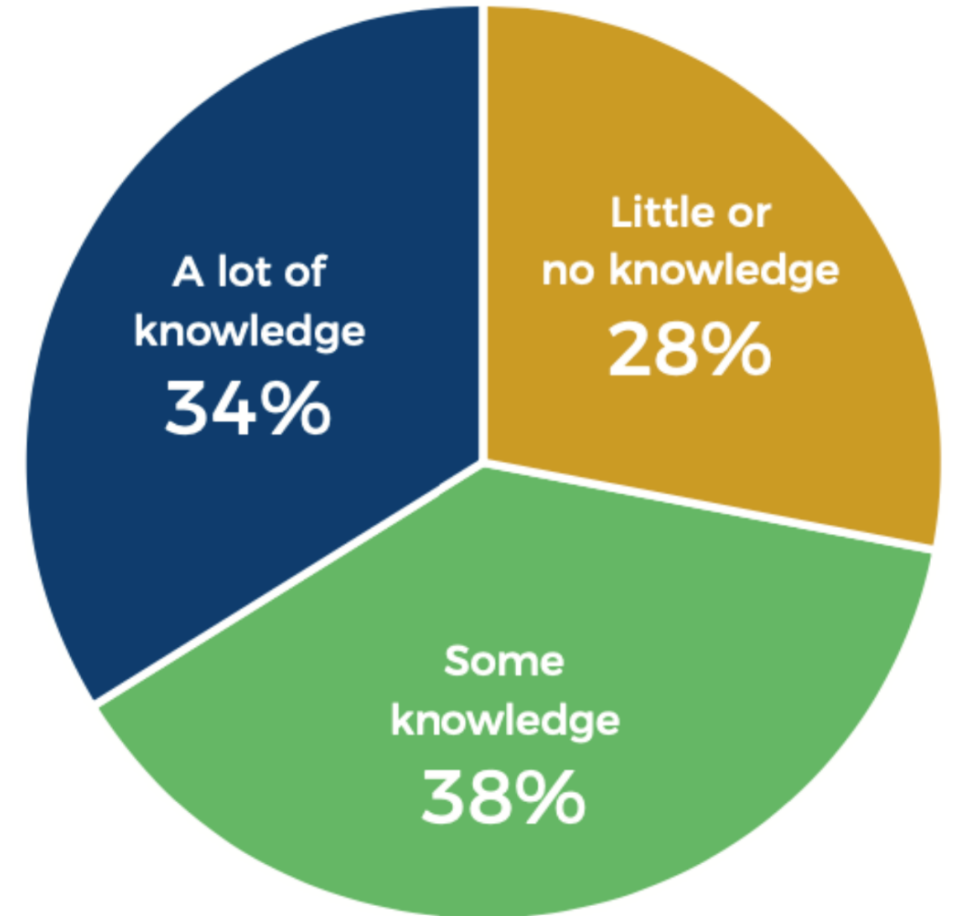


- **Collaboration:** Connecticut Green Bank, CT Insurance Department, Operation Fuel, Yale University, and Clean Energy Group
- Project-specific **technical assistance grants** solar+storage feasibility studies at affordable housing
 - **Health-focused:** How do we best support medically vulnerable individuals living here?
 - Specialized rubric
- Additions: **Weatherization** support
- CT Green Bank **financing** opportunities included in report out process
- Incorporated state programs, including **CT Energy Storage Solutions program**
- **One-on-one support** from CEG throughout

Level of Existing Knowledge on Solar and Storage Technologies

Key Tenets of Early-Stage Technical Assistance

- Provide information and resources for all knowledge levels
- Low barrier to entry
- (Rolling application window; not competitive)
- Prioritize projects led by Black, Indigenous, and People of Color (BIPOC)



Resilient Power Project Development



To successfully seek funding and move towards project development, project teams need to know:

- System size,
- **Cost** of installation and maintenance,
- Estimated lifetime **savings**,
- Benefits from the system: community resilience and environmental sustainability

The Technical Assistance Fund provides project teams with a clear picture of costs, ownership structures, and financial incentives to help with decision making and fundraising.

Technical Assistance Fund process

1. Submit intake form,
2. Intro call with CEG,
3. Intro call with Engineer,
4. Scope of work,
5. Agreement

Once the agreement is signed



Kickoff meeting	Week 1	Everyone
Gather data and send to TAF engineer	Week 2-4	Awardee
Draft report	Week 5-7	TA Engineer
Report review meeting	Week 7	Everyone
Share any comments and questions about the report	Week 8-10	Awardee
Final report	Week 11-12	TA Engineer

Providing Options

- Compares costs and benefits between different system sizes and designs
- Vendor agnostic, no “sales pitch”
- Choose which engineer you want to work with

	Economic Solar	Solar + Small Battery ¹	Resilient Power 1 ²
Solar	74.25	74.25	74.25
Storage	N/A	10kW / 26kWh	60kW / 360kWh
Financial			
Capital Cost	240,570	267,570	571,050
IRR	11.4%	10.7%	11%
NPV _{@8%}	69,856	64,217	81,234
Simple Payback (years)	7.2	7.5	4.3
Offtaker Savings Y1	21,490	21,600	21,700
Sustainability			
Renewable Generation (kWh)	97,171	97,171	97,171
Carbon Offset (metric tons) ¹			
Resilience			
Resilience* (@100% critical load)	N/A	N/A	72 Hours

*Actual hours will vary by time of day, time of year, availability of solar for re-charge

Building Relationships with Technical Partners

- Engineer **referral list includes 12 trusted partners** from across the country.
- Six partnerships are MWBE-owned.
- Community partners have introduced CEG to **an additional 15+ local providers**.
- Pre-development planning can be done remotely (no site visit required), but in certain cases, local expertise can prove valuable.

TAF Engineering Partners:



ELEVATE



Evolution of Data Collection

- Intake survey (20 questions)
 - Existing knowledge of solar and battery storage
 - Motivation for pursuing solar+storage
 - resilience, economic, environmental, etc.
 - Community members served by a potential solar+storage system
- Exit survey (13 questions)
 - Current knowledge of solar and battery storage
 - Rank the utility of TAF-provided resources
 - e.g., case studies, webinars, etc.
 - Rate experience with key parts of the TAF
 - e.g., "I knew who to contact when I had a question"
 - Rate likelihood of experience common barriers

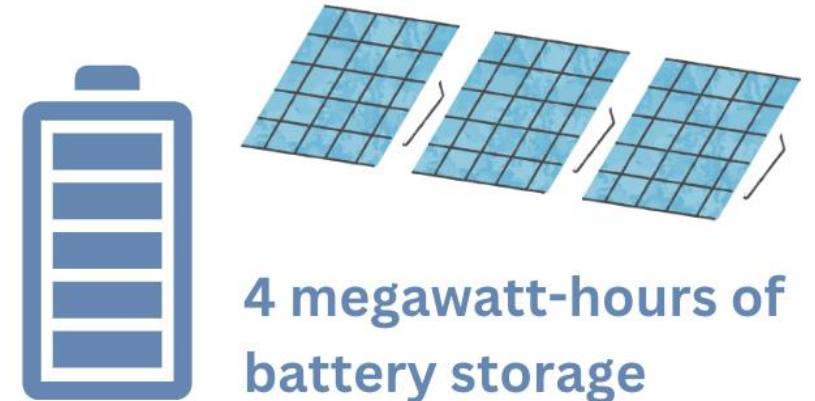


Evolution of Data Collection and Analysis to **Measure Impact**

Clean Energy group invested **\$130,000**
in early stage technical assistance, which
ACTIVATED nearly **\$18 million**
in outside capital to install 32 projects



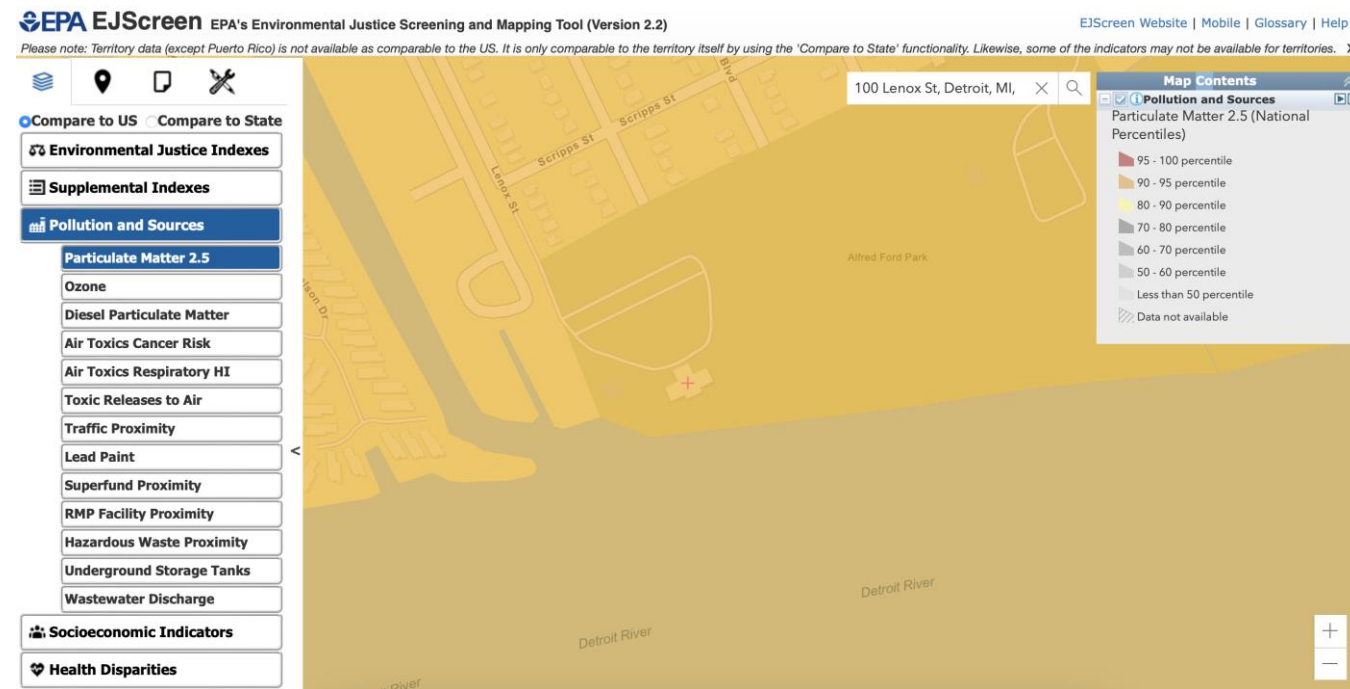
6 megawatts of solar capacity



4 megawatt-hours of
battery storage

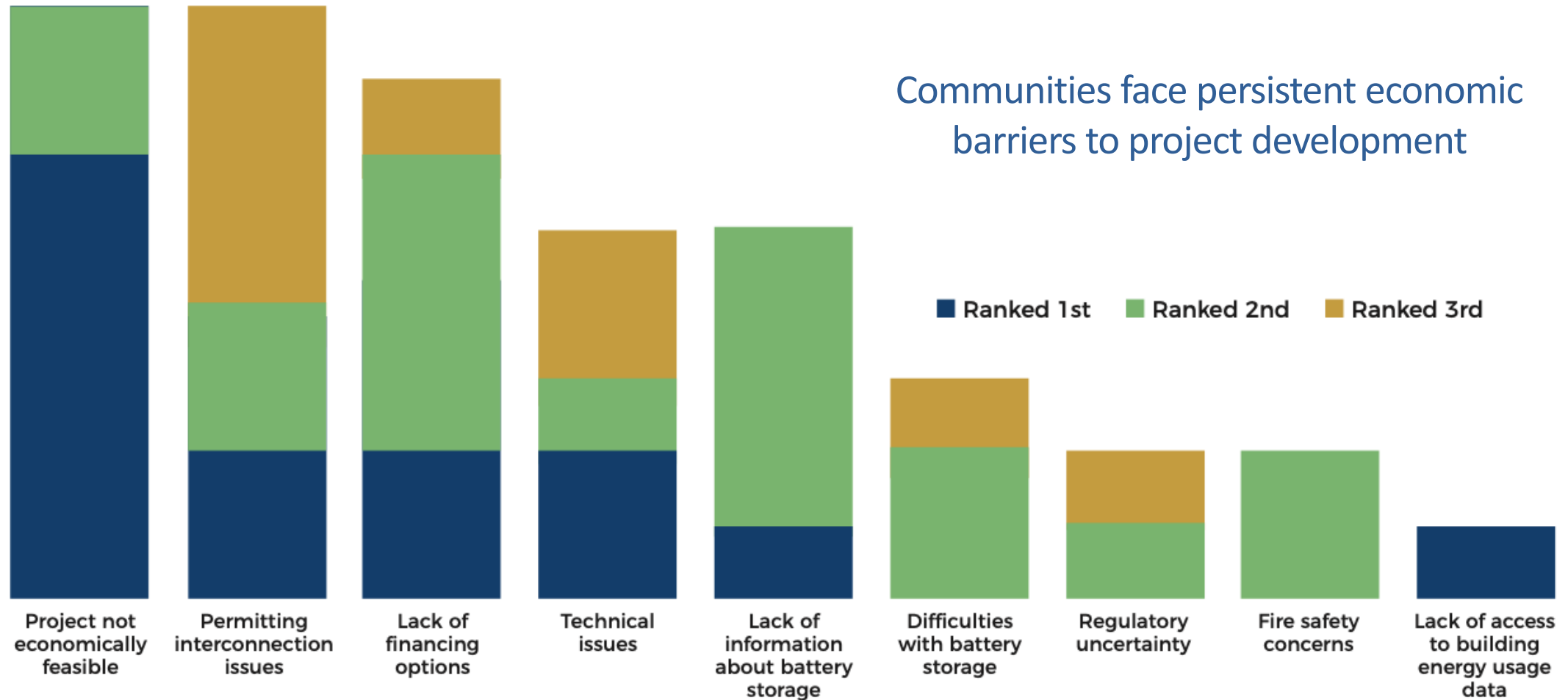
Evolution of Data Collection to Study Communities Served

- BIPOC-led organizations
- Facilities in Justice40 communities
- A community's proximity to pollution, its average energy burden and income level, and the share of residents who have been diagnosed with asthma or diabetes



Top Three Barriers to Solar+Storage Project Development

Communities face persistent economic barriers to project development



Completed Projects

Targeted technical assistance leads to more projects being installed



Maycroft Apartments

Location: Washington, DC

Critical Loads: Hallway and stairwell lighting, and a resiliency center that provides lighting, exhaust and floor fans, charging for phones and medical devices, refrigeration for food and medication, and a microwave

Costs: \$130,000 batteries and installation, \$197,000 solar

Additional Benefits: Community solar for 100 residents - \$40 monthly utility savings



RESILIENT POWER LEADERSHIP INITIATIVE

Building resilient power capacity locally



Provided almost **\$200,000 in funding** to community based-organizations to increase internal capacity by enabling them to devote more time to learning about resilient power technologies, policies, and issues.



"The RPLI provides extra support for Feed The Second Line leadership to continue the work of being on the frontlines- in efforts to continue to support the communities in our city in the aftermath of a natural disaster through our Get Lit Stay Lit program."

*Tinice "Tee" Williams, Executive Director
Feed The Second Line, New Orleans, LA
RPLI Awardee 2023*

LEARN MORE:

<https://www.cleangroup.org/initiatives/resilient-power-leadership-initiative/>

Clean Energy Group Resilient Power Leadership Initiative

- Goal: Seed long-term, community-led programs that further advance energy equity and environmental justice.
- CEG one-on-one support throughout
- Low barrier to entry
- Minimal reporting requirements
- Grants are \$10,000 for one year
- Average of 2 – 3 awards per year
- Prioritizes organizations serving low-income populations or Black, Indigenous, and People of Color (BIPOC) communities



Thank You!

Newsletters: cleanegroup.org/newsletters/



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How to Build a Statewide Energy Technical Assistance Program

Solar Plus Storage for Resilient Communities

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APRIL 23, 2024



Washington State
Department of
Commerce

We strengthen communities



HOUSING AND HOMELESSNESS



INFRASTRUCTURE AND BROADBAND



SMALL BUSINESS ASSISTANCE



ENERGY



PLANNING AND TECH ASSISTANCE



COMMUNITY SERVICES



CRIME VICTIMS AND PUBLIC SAFETY



ECONOMIC DEVELOPMENT

***The people of Washington thrive in a clean,
affordable and equitable energy economy***

***The Energy Division catalyzes the transition
to a clean and just energy future: We inform,
We invest, We influence***

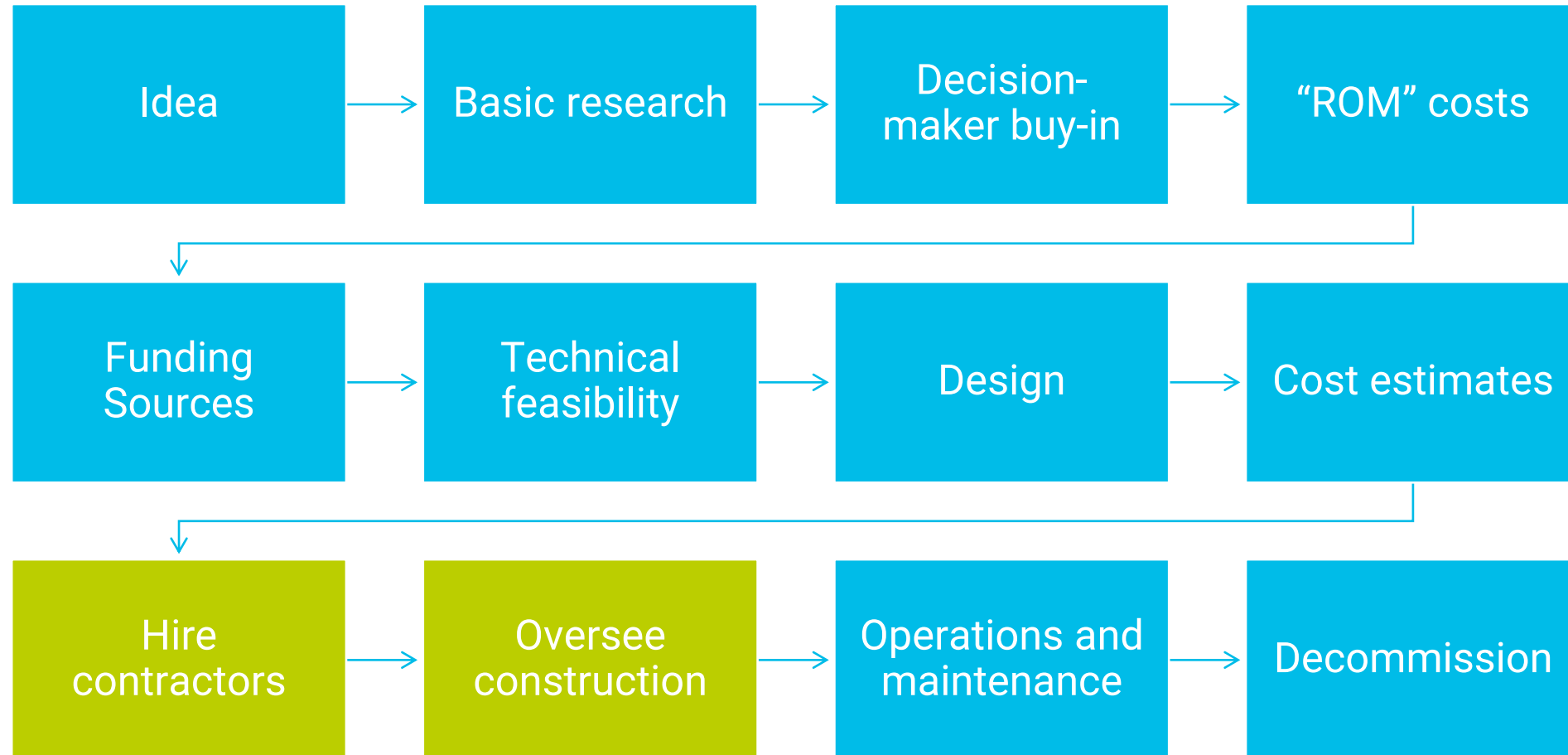


Creating a Technical Assistance Program

Why and How



What does it take to build a clean energy project?



What we've heard from communities

- **Survey: 38% said they needed technical assistance to get to the next stage of their clean energy projects**
- **Listening session: What is your greatest barrier to apply?**
 - 13% said cost of consulting/engineering pre-application
 - 15% said gathering data to complete the application

“We don’t have a budget for consultant services for this which is out of the knowledge realm of a lot of the staff here. So for us, the technical aspects of the application are the hardest part.”

Result: Communities with fewer resources get left out

Solar Plus Storage for Resilient Communities



- Solar and battery storage in community buildings
- Enhance grid resiliency and provide backup power for critical needs during outages
- Planning and predevelopment work

Planning and predevelopment options

1: Competitive Grant

- Apply for funding (small window)
- Contract with Commerce
- Hire, oversee, pay consultants
- Reimbursement from Commerce
- Funding for community engagement, portfolio analysis, etc.

2: Technical Assistance

- Request form/Intro meeting (anytime)
- Depending on need/eligibility, connect with consultants to provide feasibility study at no cost to community
- Wrap-around assistance from Commerce

How we did it

- Getting the funding authority
- RFP to provide feasibility studies and outreach services
- \$800,000 over 14 months (May 2023 – June 2024)
 - About 50 studies (depending on complexity)
 - Additional services for community outreach assistance, grant writing help
- Awarded contracts to two consultants with different approaches
- About 1.5 FTE

Solar Plus Storage for Resilient Communities Technical Assistance Program

Year One in Review



Year One in Review

- 31 active projects across 18 counties and 5 tribes
- 45 solar plus storage feasibility studies assigned, 30 completed to date
- Approx. \$45 Million in viable projects
- \$12.2 Million in grants submitted by TA recipients
 - 17 individual communities
 - 12 S+S installations
 - 2 Solar installations
 - 4 planning/pre-development



Source: [DOE](#)

Founding Principles

- **Washington Energy Resilience Framework**
 1. We meet communities where they are
 2. We don't have to agree on the why
 3. We do government differently
- **Solar Plus Storage for Resilient Communities Technical Assistance Program Goals**
 - Low barrier to entry – No wrong doors experience
 - Cross sector collaboration
 - Every community gets a meeting

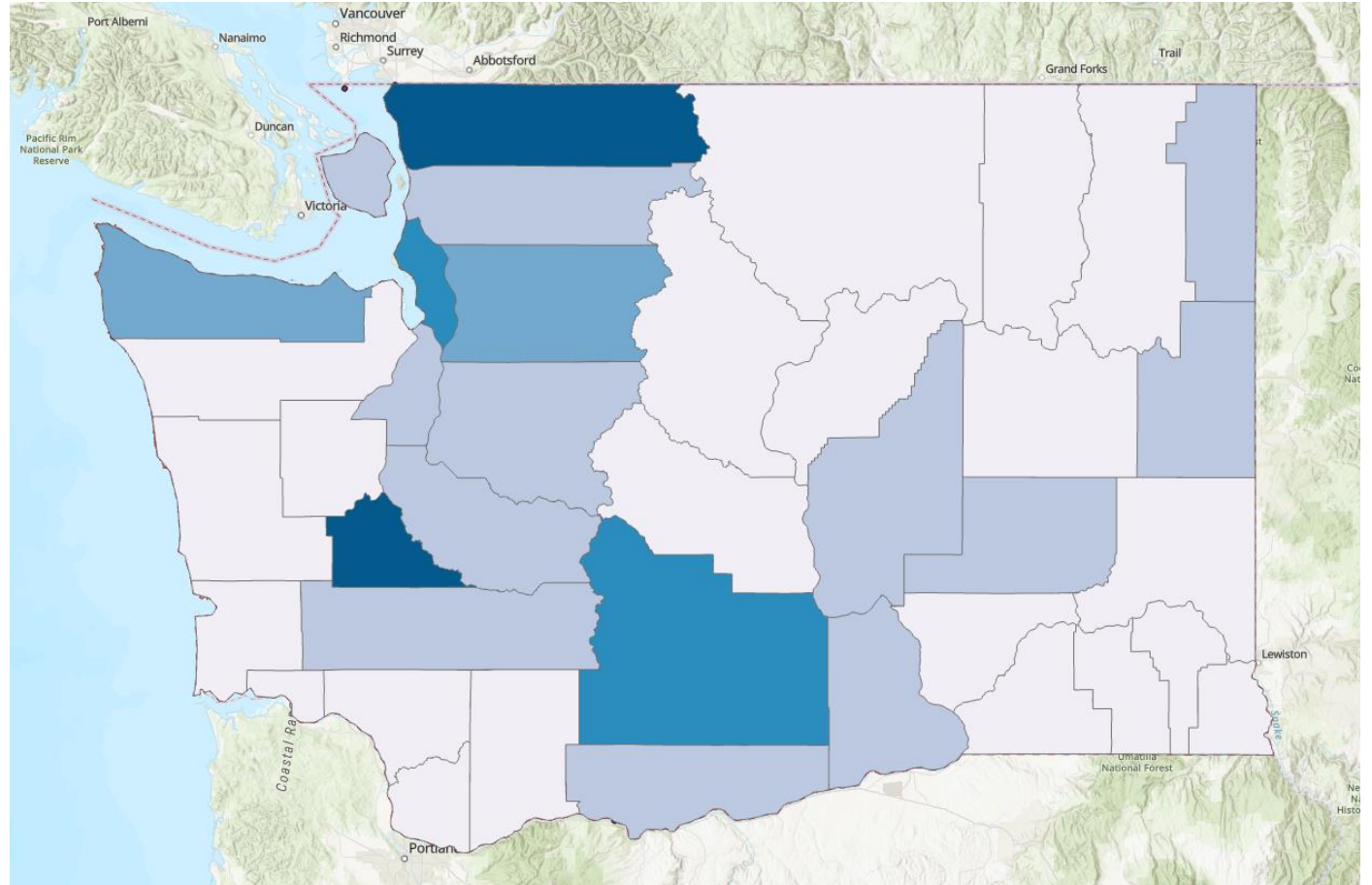
Program Approach

- **Program Process**

- Request for assistance
- Welcome meeting – 60 minute virtual meeting (in-person is always available upon request)
- Scope of work – what does resilience mean to you and your community?
- Feasibility study determination – working with a finite resource
- Funding opportunity determination
- Apply for funding – rinse and repeat if necessary
- “Closeout”

Feasibility Study Determination Methodology

- Finite resource
- Avoid first come first served system
- How do you measure community need and capacity?
 - Meeting must happen first



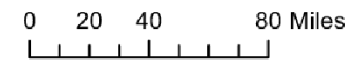
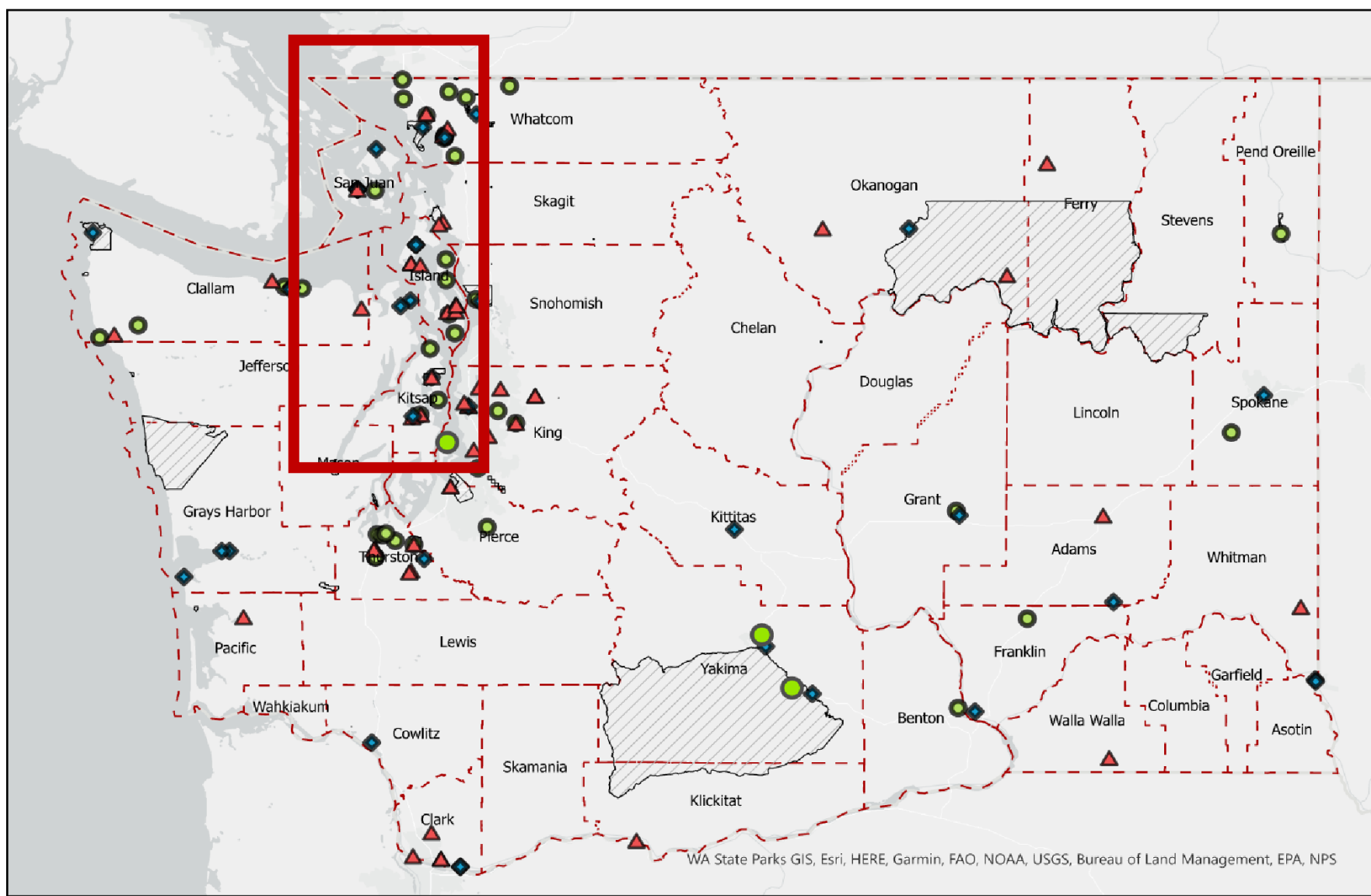
Methodology

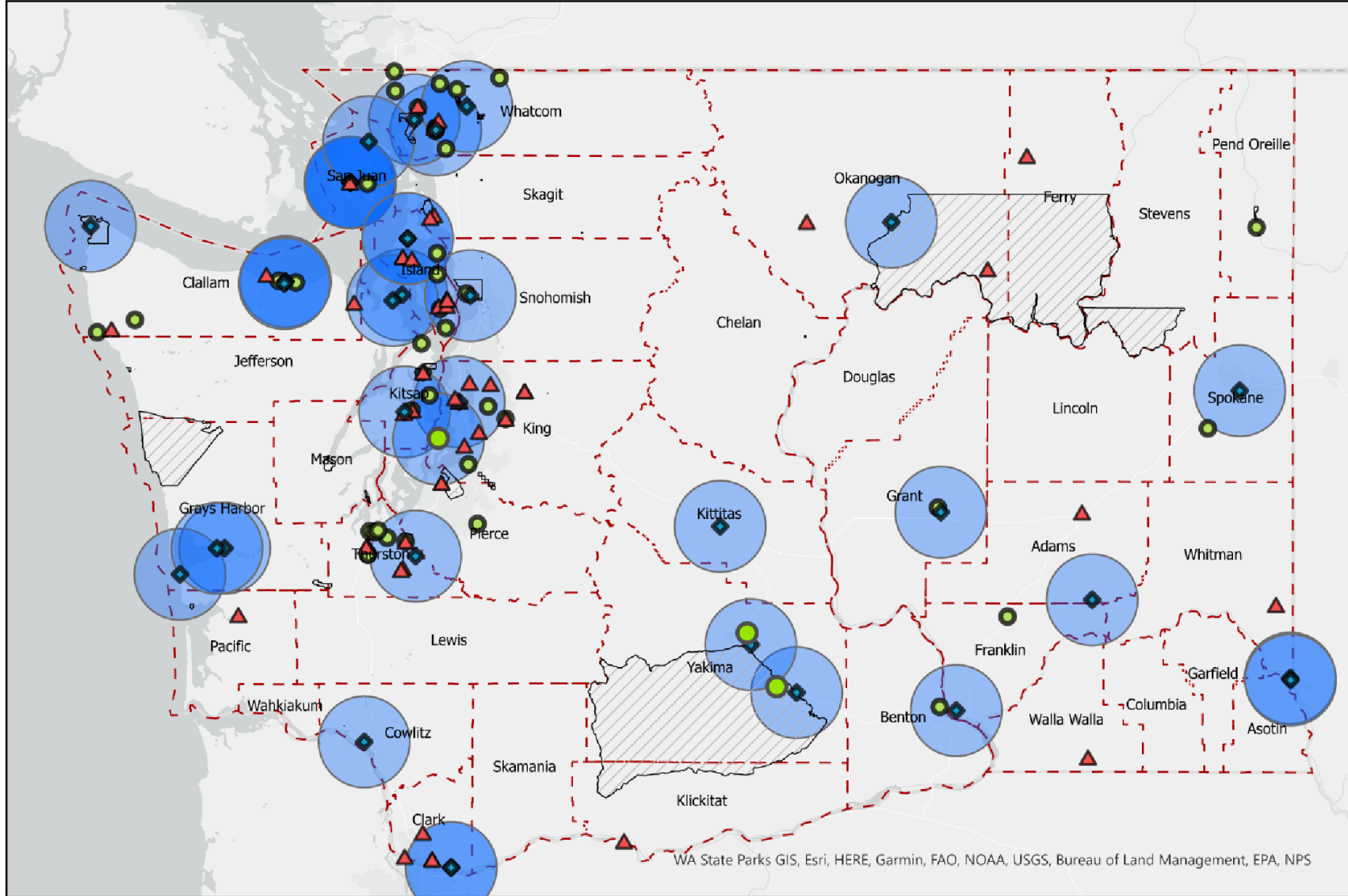
$$\text{Final Score} = (\text{proximity}) + (\text{SVI} * \text{EHD}) * \text{Capacity}$$

Geographic Metrics

- Social Vulnerability Index
- Washington Environmental Health Disparities

Will the community face challenges in finding other resources for planning work/feasibility studies





0 20 40 80 Miles



Methodology

$$\text{Final Score} = (\text{proximity}) + (\text{SVI} * \text{EHD}) * \text{Capacity}$$

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Methodology

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Geographic Metrics

- Social Vulnerability Index
- Washington Environmental Health Disparities

Will the community face challenges in finding other resources for planning work/feasibility studies

Lessons Learned



Lessons Learned

- Cost-effective due to volume, reduce admin for everyone, ensure quality
- Not a lot of marketing needed! People are interested
- Importance of wrap-around assistance
- Lack of funding stability
- Challenge of rolling selection – set clear thresholds/eligibility and review dates
- Program Development is continuous
 - Process needs to slow down
- Ad-hoc specialized technical time is a must
- If you have worked with one small community... you have worked with one small community. Similar, but unique
- Authenticity goes a long way in building trust

Thank you



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Department of
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