



Welcome!

- → Session is being recorded
- → Please stay muted until Q&A at the end
- → Introduce yourself and enter questions in the chat!
- → Slides and recording will be sent out shortly after





Agenda

- 1. 2023-2024 Efficient and Healthy Schools Program
- 2. National Level Funding Resources
- 3. Utilizing State Energy Office and Utility Program Funding
- 4. Bringing all the Funding Options Together
- 5. Question & Answer



Today's Presenters



Shannon Oliver New Buildings Institute



Reilly LovelandNew Buildings Institute



Gerry Glynn Ameresco



Randy Isaac Otak CPM



The Efficient and Healthy Schools Program Team

U.S. Department of Energy

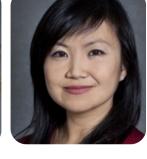






Berkeley Lab













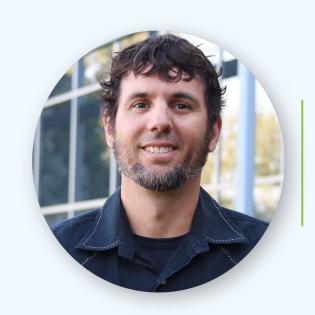












2023-2024 Efficient and Healthy Schools Program

Shannon OliverNew Buildings Institute



DOE Efficient and Healthy Schools Program



Aims to improve energy performance, advance resilience, and promote a healthy learning environment in schools.

Engages **K-12 schools**, especially those serving low-income student populations and in rural areas.

Provides technical assistance through direct consultations and recognition of exemplary school improvements.



Honoree Participant **Total Participating** Districts 183 **Total Participating** Schools 7,907 **Total Students Served** > 4.7 million **Efficient and Healthy Schools Program** Participants to date – January 2024



Three ways to get involved



Join the Program

- National support network of best practices
- Free Technical Assistance
- One-on-one onboarding



Support Schools

- Engage with active schools and districts
- Be listed on program website
- National network of leading organizations



Gain Recognition

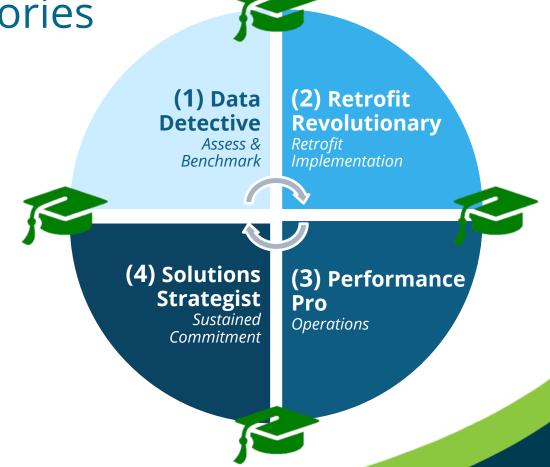
- National recognition
- Free Technical Assistance
- Onboarding and coaching



2023-2024 Recognition Categories

All Categories Offered

- Tangible Technical Assistance menu administered by LBNL & NBI
- Peer-Peer learning in cohorts of districts facilitated by NBI
- Mentorship from previous honorees
- Financing & funding development
- Packaged resource sharing by NBI





Preparation

Interested schools and districts will fill out a recognition application and request assistance from the program if needed.

Winter 2023-2024

April 2024

Final Submission

Announcement & Celebration

Schools and districts will be notified of recognition in May and will be invited to attend an in-person celebration in June 2024.

May-June 2024

Schools and districts will submit application and supporting materials by April 5, 2024.



Recognition Application Overview

- Submit via online form:
 https://www.surveymonkey.com/r/6Y6TL69
- Start and return later
- PDF guide is available for download



Efficient and Healthy Schools Program 2023-2024 Recognition

OVERVIEW

The Efficient and Healthy Schools recognition program serves to showcase national leadership in energy efficiency and health in schools and districts across the country. This is a U.S. Department of Energy program that is supported by Lawrence Berkeley National Laboratory (Berkeley Lab) and New Buildings Institute (NBI). Our organizing partners are the U.S. Department of Education and the U.S. Environmental Protection Agency.

In 2023-2024, the Efficient and Healthy Schools Program will recognize emerging and exemplary solutions and efforts by K-12 schools in four categories:



Data Detective. Honoring schools and districts that demonstrate best practices to assess, benchmark, and utilize building data to prioritize school improvements.



Retrofit Revolutionary. Honoring schools and districts that showcase exemplary retrofit projects to improve energy efficiency and resilience, and promote a healthy learning environment.



Performance Pro. Honoring schools and districts that strive for continuous improvement through operations and maintenance (O&M) activities, performance evaluation, and retrocommissioning (RCx).



Solutions Strategist. Honoring schools and districts that develop plans and make committed goals to advance district initiatives that achieve sustained and long-term improvements of their school buildings.

This application explains submittal requirements for the 2023-2024 recognition program. Title I schoolwide program schools, rural schools, and schools in disadvantaged communities are especially encouraged to apply. Schools and districts will receive recognition for demonstrating best practices in each category.

The program is planning an in-person recognition event for June 2024 to celebrate the success of schools and districts. Please visit the <u>program website</u> and sign up to receive the latest news. Join us to learn how to improve energy performance, advance resilience, and promote a healthy learning environment in schools.

ENERGY & RENEWABLE ENERGY







National Level Funding Resources

Reilly LovelandNew Buildings Institute



Summary of Funding Opportunities



Traditional Sources for Capital Projects

- State and/or district level funding (noncompetitive)
- Voter approved bonds or levies



Federal & State Disbursements or Allocations

- Federal: noncompetitive, based on funding formulas
- State Lottery(s)
- Other State



Grants, Rebates, and Incentives

- Federal (competitive)
- State (competitive)
- Local (competitive)
- Utility rebates & incentives



Other Procurement & Financing Options

- Energy Service
 Company / Energy
 Performance
 Contracting
- Energy Efficiency as a Service
- Utility Energy Service Contracts
- Private Loans





Most Commonly Utilized Funding Stacking Approaches

Incentives /
Rebates
Utility
State
or
Local

Federal

Competitive or non

New
Construction or
Major
Modernization
Primarily

Retrofits, Modernizations, and System Replacement

State Funding

Disbursed/Allocated OR

Grants (matching most typical but may include nonmatching)

Incentives / Rebates
Utility, State or Local

State Funding

Disbursed/Allocated OR

GrantsMatching or non-matching

Other State

Levies

Only utilized for small projects related to operational upgrades

Other Procurement /
Financing Options

ESCO

UESC

ESPC

(May provide support to secure additional funding from federal \$, grants, rebates, incentives, etc.)

Local Bond Funding





Focus in: Inflation Reduction Act

The largest investment in climate and clean energy in United States history. Funding available by statute until at least 2032.

- Investment Tax Credit (ITCs) Sec 48: Applied to upfront costs of clean energy systems (solar, storage, ground source heat pump, etc.)
- Commercial Clean Vehicle Credit Sec 45W: Applied to upfront costs of installing electric school buses.
 - Max credit \$40k
 - Non-competitive, uncapped, can be combined with grants for EV buses
- Alternative Fuel Refueling Property Credit Sec 30C: Applied upfront to costs of EV charging equipment for buses or passenger vehicles.
 - Max 30% of costs, or \$100,000 per unit
 - Non-competitive, uncapped, can be combined with grants for charging equipment

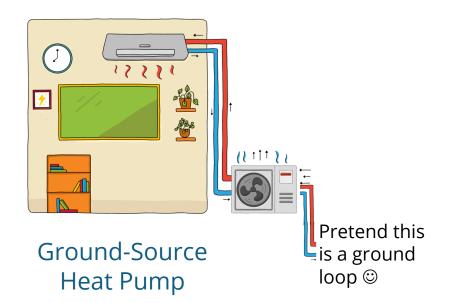
Direct Pay: Tax
credits paid to
schools in form of
cash
reimbursements.

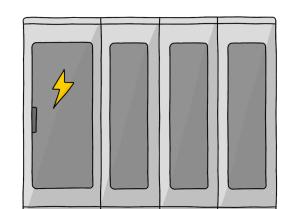
Technologies covered:

- Solar & Wind
- Ground Source Heat Pumps
- Energy Storage
- Electric Vehicle Chargers



Section 48: Investment Tax Credits



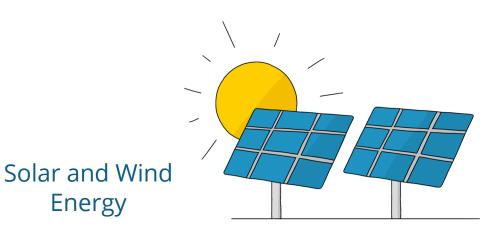


Energy

Energy Storage

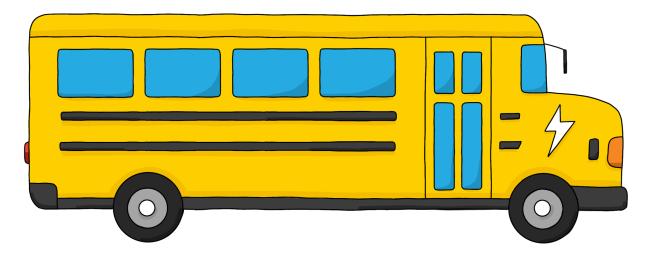
Artwork by Nicole Kelner

*except the attempt to take Nicole's beautiful air source heat pump with VRF and turn it into GSHP. That was all us ©





Section 45W: Commercial Clean Vehicles Tax Credit



Electric School Buses

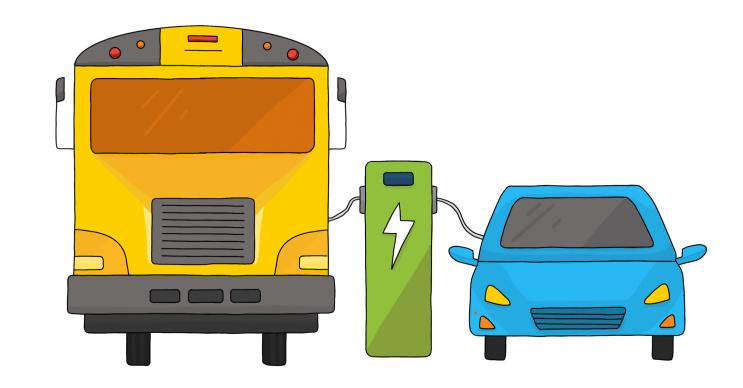
Artwork by Nicole Kelner





Section 30C: Alternative Fuel Refueling Property

Electric Vehicle Charging Equipment



Artwork by Nicole Kelner



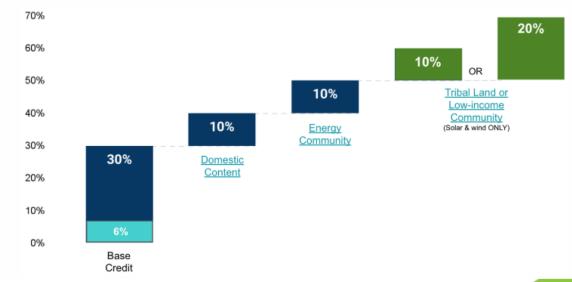
Focus in: Investment Tax Credit (ITCs)

Investment Tax Credit (ITCs): Applied to upfront costs of clean energy systems (solar, storage, GSHP, etc.)

- 30% base credit
- 10% domestic content credit
- 10% energy community (transition community)
- 10-20% low-income or tribal (solar and wind only)

= up to 50-70% depending on the project!

Investment Tax Credit Base and Bonus Credits



Credit: Undaunted K-12

More info on how to get reimbursed:

https://www.undauntedk12.org/how-schools-get-reimbursed



Sample ITC Calculation

- Two K-8's in Wisconsin seeking ground source heat pump over conventional rooftop / VAV system.
- Both are new construction to replace existing elementary school and expand to K-8.

ITC credit options:

- 30% base credit
- 10% domestic content credit
- 10% energy community (transition community)

Note: estimates were provided by construction management firm hired for these projects and represent the high end of predicted costs.

K-8 #1:

- Standard rooftop unit and VAV system: \$5.7M
- Ground source HP w/out credit: \$8.8M
- Ground source HP with 30%* credit: \$6.2M
- Ground source HP with 40% credit: \$5.28M

K-8 #2:

- Traditional: \$4.5M
- Ground source HP w/out credit: \$6.9M
- Ground source HP with 30%* credit: \$4.8M
- Ground source HP with 40% credit: \$4.14M

In both cases – GSHP systems with the ITC credit can be in the same range as a typical system WITH added health and efficiency benefits. Calculation does not include savings on efficiency or operations.

^{*}in case domestic content not readily available



Focus in: 179D Tax Deduction

The 179D program allows school districts to allocate the Deduction to the designers of the building through an allocation letter process.

- Schools can now negotiate a split of this deduction. Suggest 50/50.
- Deduction is \$2.50-5.00 per SF
- Must reduce the energy and power cost by **50% or more** in comparison to ASHRAE 90.1

Technologies include:

- Interior lighting
- Building envelope
- Heating, cooling, ventilation
- Hot water systems

Sample tax benefit analysis:

Location	Square Footage	Tax Benefit (approx. range dependent on savings over ASHRAE 90.1)
High School: Cedar Creek, TX	262,134	\$655,335
High School: Lexington, KY	343,037	\$933,061
High School: Indianapolis, IN	455,018	\$1,547,061
High School: Modesto, CA	275,939	\$728,479
High School: Greer, SC	278,111	\$1,042,916
High School: Santa Ana, CA	320,462	\$999,841
High School: Trussville, AL	361,078	\$1,725,953
Total Building Cost Benefit		\$7,632,646

Note: all benefits granted to designer, construction manager or architectural firm. Schools should negotiate the split to receive a portion of this benefit.





Other Mechanisms

- Elementary and Secondary School Emergency Fund Relief (ESSER)
 - ESSER III: \$122.7B Allocation through September 2024, Spend date through January 28, 2025.
- Other Federal Programs
 - Renew America's Schools
 - Clean School Bus Program
 - FEMA BRIC Grants
 - Tribal Climate Resiliency
- State or Local Grant Opportunities
- Utility Incentives
- Energy Service Company's (ESCOs) and Energy Service Performance Contracts





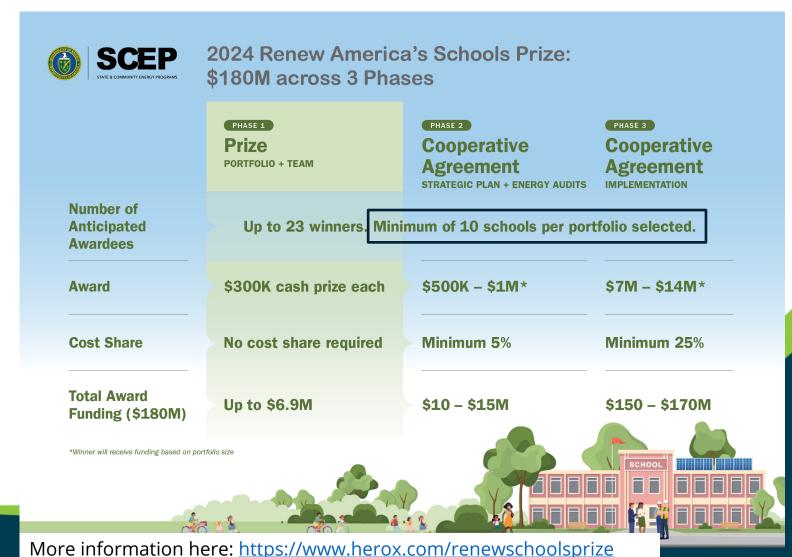
Hot off the presses! Renew America's Schools Round 2!

No concept paper submission this year!

7 documents in application total *SEA Form required this time

Submission Deadline: June 13, 2024 by 5 PM ET

Phase 1 Winner Announcement (Anticipated): August 2024





Renew America's Schools Round 2

Eligible improvements include repairs, renovations or installations to:

- Envelope
- HVAC
- Domestic HW
- Lighting
- Power systems
- Controls
- Renewable energy (solar, wind)
- Alternative fuel vehicle infrastructure
- Purchase or lease of alternative fuel vehicles

Project Qualifications:

- Any improvement to school that achieve energy savings and leads to improvement in teacher and student health, including IAQ is allowable.
- Costs related to electrifying end uses to take advantaged of clean energy grid are eligible.

Portfolio of 10 schools – mix and match! This is where partnerships come in!



The Power of Partnerships

Energy Service Company (ESCO)

ESCOs can identify opportunities for energy conservation measures, estimated savings, and implementation costs.
ESCOs can also provide financing options through Energy Savings
Performance Contracts (ESPCs).

University Partner

University partners can be a great asset to K-12 schools by assisting with energy benchmarking, facilitating the development of new partnerships for energy audits and proposal development.

Community-Based Organization

Partnering with local community organizations can provide critical support in areas like project management, financial administration, workforce development, and more.

Utility Partner

Utility partners bring experience in managing local energy service projects and can provide net-zero financing options through Energy Performance Contracts with low or no upfront costs to LEAs.





Join the Teaming List

There is vast interest and opportunity for collaboration between school districts and

industry experts willing to meeting their energy goals. partnerships, and to help so in the Renew America's Sch Efficient and Healthy Scho

ESPC Campaign, and

Great place to find support or offer support for districts seeking to apply for Renew America's Schools!

Buildings/Better Climate Challen nnect and communicate, DOE is compiling a Teaming Partner List. Join the Teaming Partner List to let prospective partners know you are interested in working together. Please note that this is not an application for any DOE programs or campaigns.







DOE Schools Teaming Partner List DOE is compiling a Teaming Partner List for the school community to facilitate connections between school districts and industry partners willing to support schools with meeting their energy and climate goals. This list will support a number of DOE programs including the Renew America's Schools Program, the Efficient and $Healthy\,Schools\,Program,\,the\,ESPC\,Campaign,\,and\,the\,Better\,Buildings/Better\,Climate\,Challenge.$ Access to the Teaming Partner List will be available from the following websites: • https://www.energy.gov/scep/renew-americas-schools • https://efficienthealthyschools.lbl.gov/partners https://www.energy.gov/scep/espc-campaign . https://betterbuildingssolutioncenter.energy.gov/sectors/k-12-school-districts DISCLAIMER: By submitting a request to be included on the Teaming Partner List, the requesting organization consents to the publication of the information provided in the form below. By facilitating the Teaming Partner List, DOE is not endorsing, sponsoring, or otherwise evaluating the qualifications of the individuals and organizations that are self-identifying themselves for placement on this Teaming Partner List. DOE will not pay for the provision of any information, nor will it compensate any participants or requesting organizations for the development of such information. Organizations should complete their own due diligence of partners listed prior to reaching out. * Required 1. Organization Name * Enter your answer 2. Generic Organization Contact Email * Enter your answer 3. Organization Website * Enter your answer

4. List geographic areas you are able to support (ie, nation-wide, region, city, state, etc.) *
Enter your answer
5. Area(s) of technical and programmatic expertise. *
Community Organization
Contractor
Designer / Architect
bugget / Admed
Energy Consultant
Energy Service Company (ESCO)
Engineer
Manufacturer
Nonprofit Organization
Other
6. If you are interested in becoming a Supporter of the Efficient and Healthy Schools Program or the ESPC Campaign, please check the box below to express interest, or visit the program website(s)
to learn more.
Efficient and Healthy Schools Program
ESPC Campaign
Submit

Join the Teaming Partner List

https://www.energy.gov/scep/renew-americas-schools



Energy Savings Performance Contracting (ESPC)

The Energy Savings Performance Contracting (ESPC) Campaign engages states, local governments, school districts, universities and colleges, hospitals, and other market stakeholders to support, expand, and enhance the use of ESPC to achieve significant energy, environmental, and cost savings benefits.

Goals:

- 1) Increase awareness of the benefits of performance contracting
- 2) Share practical resources and best practice approaches to strengthen ESPC and measurement and verification (M&V) knowledge across the public sector
- 3) Help partners maximize the impact of funding and financing resources to modernize buildings, save energy, lower utility and operational expenses, reduce greenhouse gas emissions, increase resilience, and support local jobs
- 4) Demonstrate impact and smooth future investments using a national database of ESPC project and M&V data

Savings Goal: Partners will collectively achieve \$1 billion in measured and verified savings



ESPC Campaign

Campaign Timeline: January 2024 – December 2028

Training Series delivered annually

Enrollment: Rolling through January 2028

Campaign Partners:

- Access DOE resources and technical assistance
- Share and implement best practice approaches for ESPC programs and projects
- Demonstrate impact with measurement and verification (M&V) data
- Showcase achievements and receive recognition for exemplary projects and programs
- Form a growing network of experienced practitioners using ESPC to make transformative investments in communities nationwide





Utilizing State Energy Office and Utility Program Funding

Gerry Glynn Ameresco



Oregon: State and Utility Incentives

- Energy Trust of Oregon (Prescriptive vs Custom)
- State of Oregon SB-1149: Public Purpose Charge Schools Program
- Oregon Department of Energy C-REP: Community Renewable Energy Grant Program (May 10, 2024)
 - \$1,000,000.00
- ESCO ESPC: Energy Savings Performance Contracting
- EaaS: Energy as a Service Contracting
- 1.5% GET Program: Green Energy Technology



Oregon: State and Utility Incentives

- Pacific Power: Blue Sky Program
- EECBG: Energy Efficiency & Conservation Block Grant Program (May21, 2024)
 - \$100,000.00
- City of Portland: Portland Clean Energy Fund
- Passing a school Bond!
- National Resource: US DOE list of <u>State Energy Offices and Organizations</u>



Bringing all the Funding Options Together

Randy Isaac Otak CPM







■ Trust Relationships





- Trust Relationships
- Solving a Problem







- Trust Relationships
- Solving a Problem
- Creating the first "Win"





- Trust Relationships
- Solving a Problem
- Creating the first "Win"
- Leveraging the "Win"









Question & Answer

Reilly LovelandNew Buildings Institute



THANK YOU - Connect with us!!

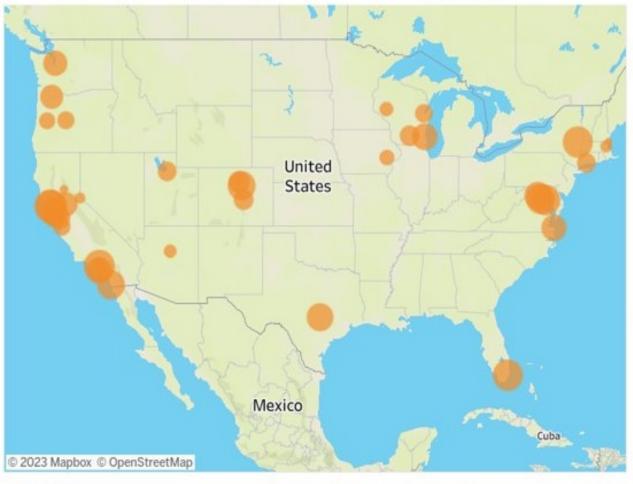
- Join | Healthy Schools (lbl.gov)
- Subscribe to the Efficient and Healthy Schools Program <u>Mailing List</u>
- Resources | Healthy Schools (lbl.gov)

Apply for recognition today!



NBI Carbon Neutral Schools Policy and Resolutions Map

Use the filters on the left to filter projects in the map, and/or select a bubble on the map to filter the table below.



School District	State	Jurisdiction	Goal Language
Alameda Unified School District	CA	Alameda	The AUSD Board of Education will strive to achie
Austin Independent School District	TX	Austin	Austin ID adopts a goal of net zero greenhouse
Bend-La Pine Schools	OR	Bend, La Pine	The district will commit to reviewing and following
Boulder Valley School District	co	Boulder	Goals to reduce greenhouse gas emission by 80
Colorado Springs School District 11	co	Colorado Springs	Colorado Springs School District 11 Board of Ed
Cotati Rohnert Park Unified School Board	CA	Cotati, Rohnert P	Establish a Climate Change Committee to devel
CREDO High School Governing Board	CA	Rohnert Park	Making buildings and manufacturing energy effic
Denver Public Schools	CO	City and County	Use 100% clean electricity by 2030 in accordance

State

- √ (All)
- √ Arizona
- √ California
- ✓ Colorado
- √ Connecticut
- √ Florida
- ✓ Iowa
- √ Maryland
- √ Massachusetts
- √ New York
- ✓ Oregon
- √ Texas
- ✓ Utah
- √ Virginia
- √ Washington
- √ Wisconsin

Goal Type

- √ (All)
- ✓ Battery Storage
- ✓ Climate Justice
- √ Curriculum
- ✓ Curriculum/Workforce
- ✓ Electrification
- √ Embodied Carbon
- √ Energy Efficiency
- √ Operational Emissions
- √ Renewables
- √ Resilience
- √ Transportation
- √ Workforce

School district & climate building commitments

https://newbuildings.org/resour ce/interactive-map-of-carbonneutral-school-districts/

District Size Classification (Large...

- ✓ Large