



Board Update – Q2 FY23

February 8, 2023

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FY23 Q2 Program Updates

1

MUNICIPAL PROJECTS

- LED Streetlighting audit complete, in final analysis and fixture selection
- PNE solar interconnection process and contracting ongoing
- Adams Solar construction has begun
- PWD RNG RFI released

2

K-12 SCHOOLS

- Ongoing construction for GESA 1-3. Waiting on scope approval for GESA 1.4.
- Working with SDP to support energy master plan, EV conversion plan and BIL/IRA opportunities

3

AFFORDABLE RESIDENTIAL

- Solarize Philly passes 1300 homes
- Over 150 LMI leases via Posigen so far
- BTL wrapping 50-home pilot, planning for Phase 2, \$1.5MM invested to date

4

SMALL BUSINESS & COMMERCIAL

- C-PACE expanded Program Guidelines released, reached \$100MM milestone
- Virtual Power Plant RFI released, evaluation and follow up now

OTHER NEWS

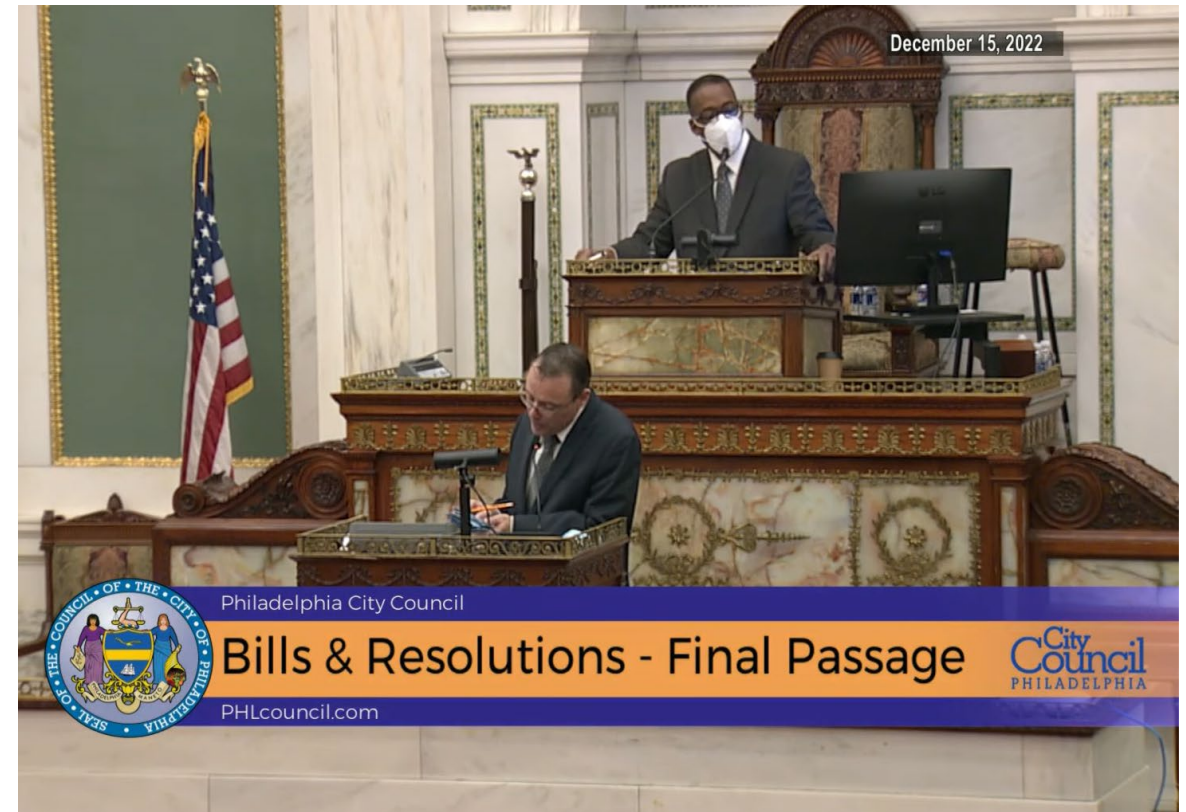
- Planning for Good Jobs Challenge underway
- Whole Home Repair guidelines and app expected November 2022
- IRA Planning with OOS
- Revisiting PWD opportunities

Organizational Updates

- Alexis Lounsbury hired as Administrative Coordinator
- Consultant Lisa Shulock brought on as Director of Commercial Programs
- Recruiting for a Workforce Development Coordinator
- Recruitment and selection ongoing for summer interns and Kleinman Fellow

Policy Updates

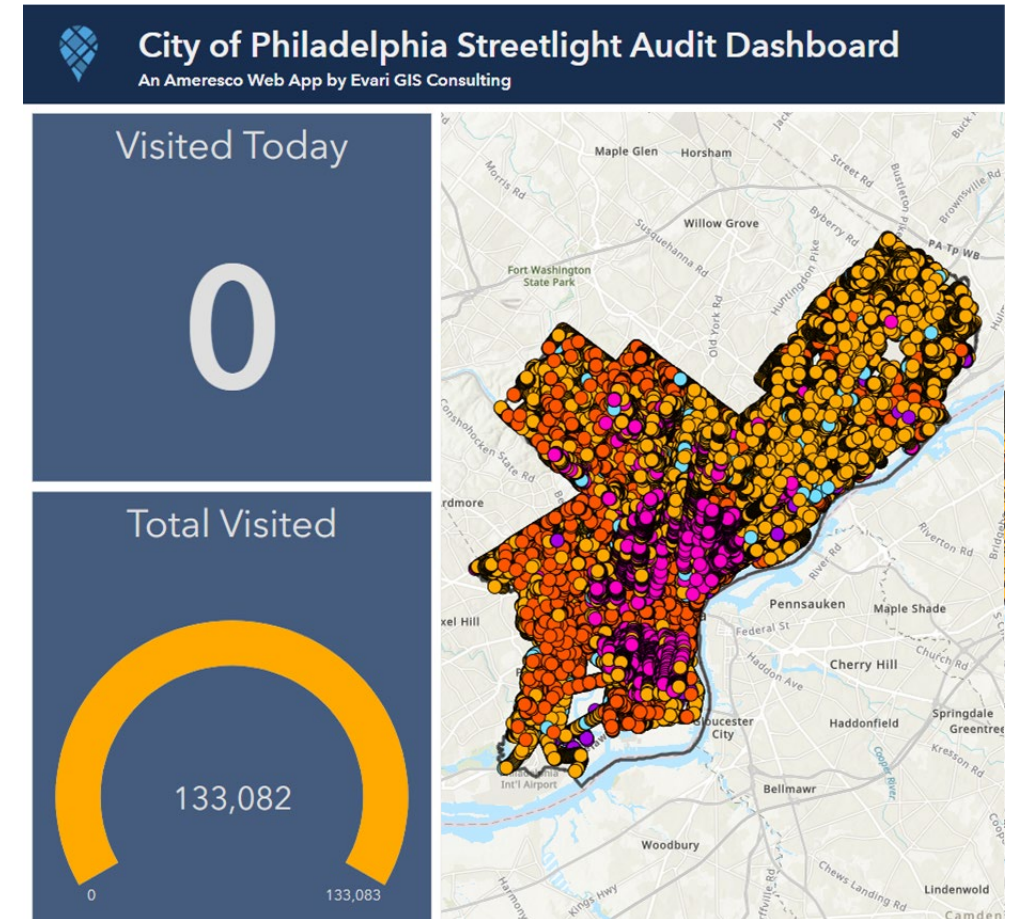
- **OOS and PEA received a combined \$300k in mid-year transfer to lead the City's Inflation Reduction Act strategy**
 - PEA investing in technical assistance to best prioritize, sequence, and blend the different types of funding streams available in the IRA
 - OOS investing in strategic planning support
- **City Council passed Resolution No. 220976 approving PHDC as City's lead applicant for Whole Home Repair Program**
 - PEA named as key implementation partner through Built to Last
 - Submitted proposal to DCED with \$7.7MM for BTL and \$1.3MM for workforce development



Municipal Energy Projects

LED Streetlighting

- Field audit complete >>
- Luminaire and lighting management system vendor RFPs released
- Meetings with public health and public safety stakeholders
- On track for completion of investment grade audit in February, start of construction in Spring 2023 following bond issuance



Municipal Energy Projects

PNE Solar

- Negotiating contract with Solaer USA for 1.5MW project
 - Costs of materials and financing impacting project economics
- Continuing to scope interconnection requirements with PECO

PWD RNG RFI

- PEA released [RFI for Renewable Natural Gas \(RNG\) Development](#) at City of Philadelphia Wastewater Pollution Control Plants on behalf of PWD in January 2023



Municipal Energy Projects

Adams Solar

- Energix began civil work, construction entrances, and erosion control measures in December 2022
- Roads and laydown areas on one of the larger parcels and grading work started in January 2023
- Vendors sought for mechanical installation and fencing



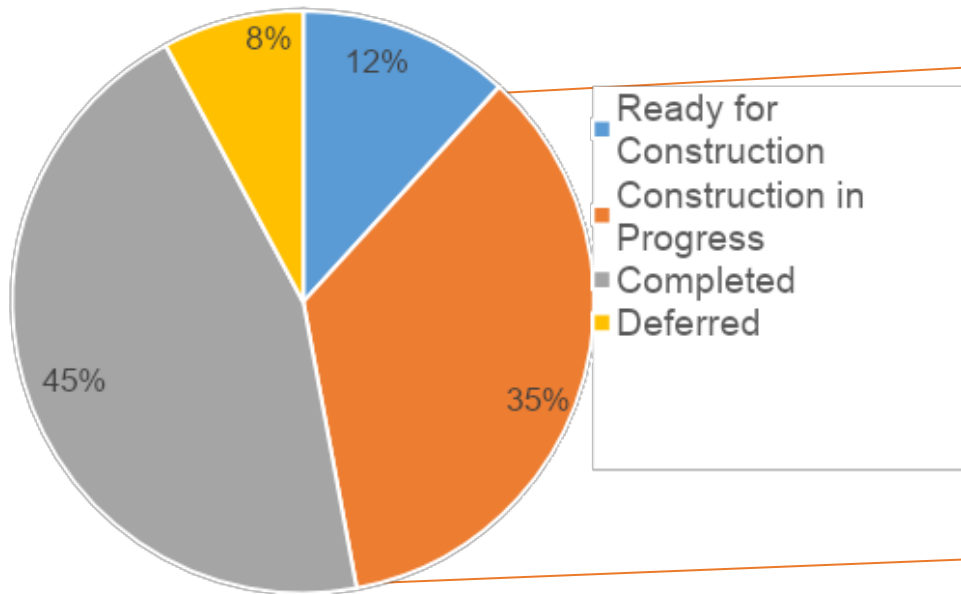
School District of Philadelphia



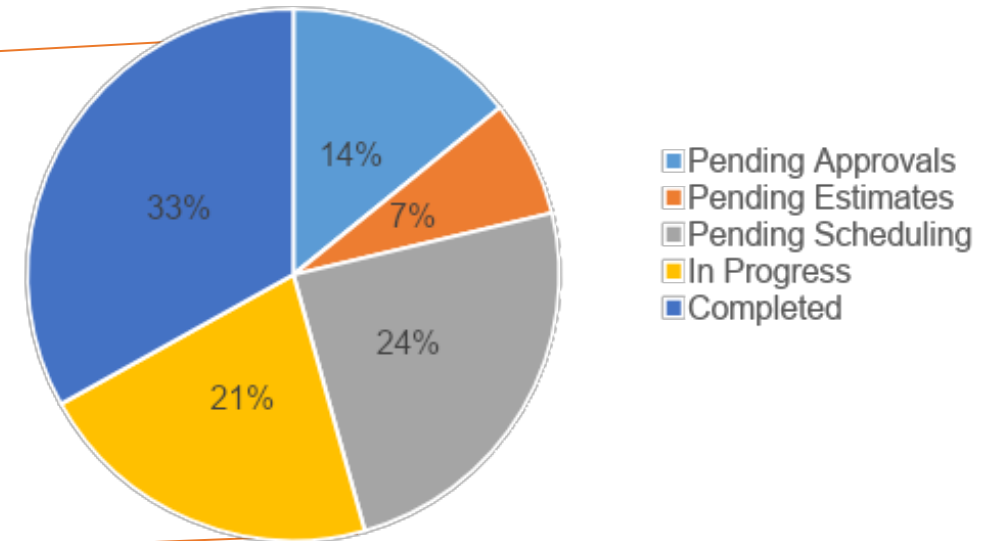
- Hiring [Coordinator, Energy Conservation Programs](#)
- New Director of Capital Programs starting Q3 2023
- University of Pennsylvania sent letter of support for solar schools to Superintendent Watlington using data from PEA's technical reports
- Former SDP CFO Uri Monson is new PA Budget Secretary, former SDP COO Reggie McNeil is new Secretary of DGS

Built to Last Pilot

Status of Pilot Homes



Status of work at homes under construction



* 2 deferred for incomplete paperwork; 2 deferred for lack of response

Pilot Spending by Partner

3.4

Average programs per home

\$44k

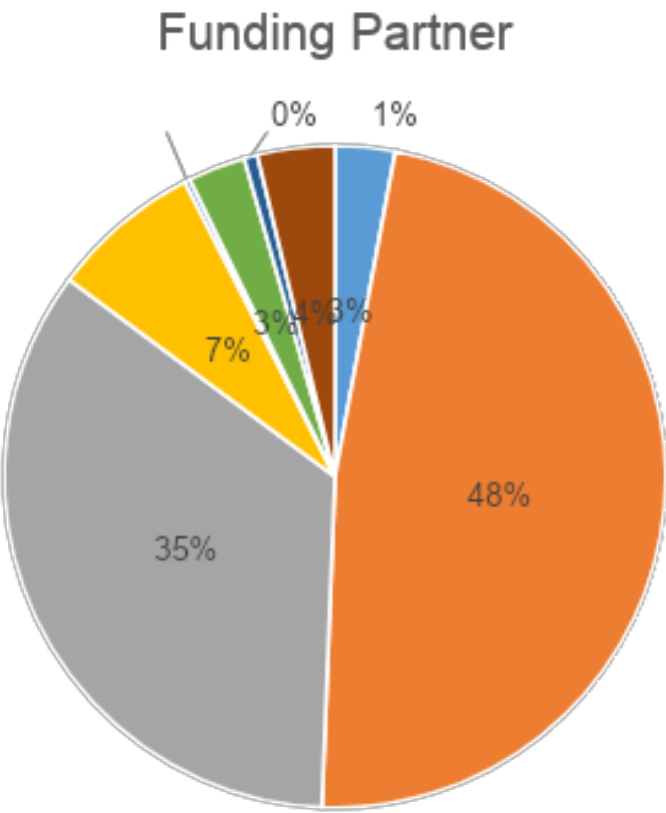
Average spending per home

\$14k

Average PEA spending per home

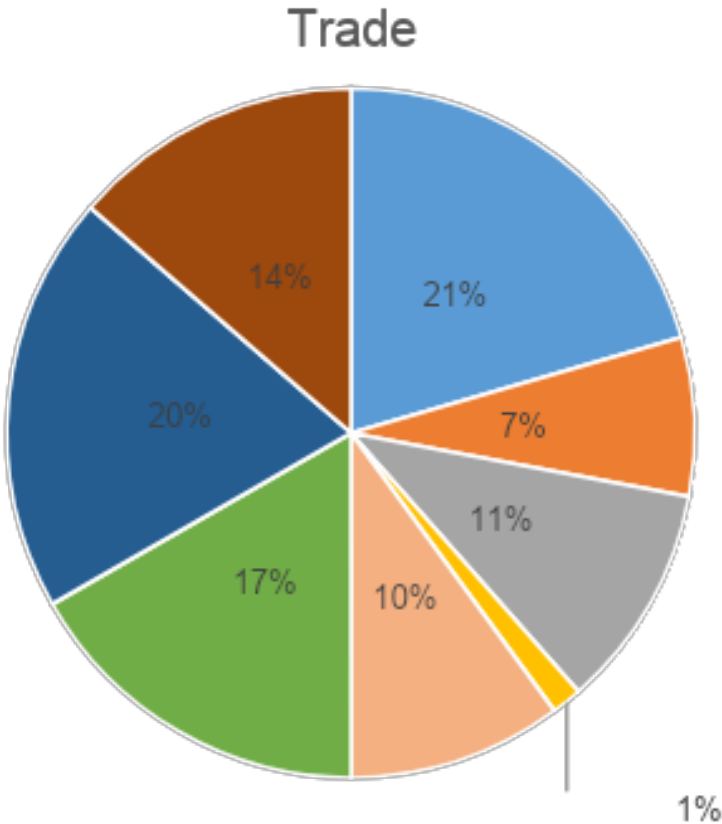
\$2.1m

Total spending projected by all programs (including solar)



AWR BSRP BTL - PEA HFHP Home Comfort - PGW PECO SHARP WAP

Pilot Spending by Work Type



27

Homes receiving electrical upgrades

14

Homes receiving full or partial electrification

31

Homes being considered for solar installations (14 with signed contracts and in installation stages)

■ Carpentry ■ Electrical ■ HVAC ■ Masonry ■ Other ■ Plumbing ■ Roofing ■ Solar

Phase 5+6 (Sept 2021-Dec 2022)



- Introduced a solar lease option with PosiGen, no up-front cost, 3rd party maintenance and tax credits
- LMI projects have some subsidy through SREC purchases
- Launched Commercial Solarize w/ Solar States and EDPR (which includes new PPA option)
 - 85 commercial projects in pipeline

Phase 5&6 Contracts Signed

- **LMI Residential: 167**
- **Market Rate Residential: 362**



Phase 7 (2023)



- New Phase enrollment started in January 2023

Phase 7 Goals

- **LMI Residential:** 250 homes
- **Market Rate Residential:** 500 homes



Progress to Date (Residential)



Contracts Signed
as of Today



Contracted Solar
Capacity



\$ Invested in
Philly's Clean
Energy Economy



Households
Signed up



Direct Jobs Created

Phases 1-4

779

3.9 MW

\$13+ million

6,500+

98

Phases 5
and 6

529

3.1 MW

\$11+ million

14,000+

~72



Solarize Philly

October 26, 2022 · 🌐

Join us at tomorrow, 10/27 12-1pm, to learn more about Solarize Philly with [Penn Sustainability](#) and [The Kleinman Center for Energy Policy](#).

Register here: <https://www.eventbrite.com/.../staff-faculty-eco-reps...>



GO SOLAR AT HOME

Join the Staff & Faculty Eco-Reps and its partners to learn more about what resources are available to transition your home to solar energy.

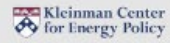
OCTOBER 27, 2022

HYBRID: KLEINMAN ENERGY FORUM AND VIRTUAL

12 P.M.-1 P.M.

REGISTER AT: bit.ly/SFEcoRepsEventbrite

In partnership with:



Organized by:



NATIONAL SOLAR TOUR

SUSTAINABLE FEATURES COLOR KEY:



OFF-GRID



SOLAR PHOTOVOLTAIC (PV)



WATER HARVESTING & CONSERVATION



NON-SOLAR ELECTRICITY GENERATION



ELECTRIC VEHICLES



SUSTAINABLE LIVING



MECHANICAL HEATING & COOLING

« All Events

Residential Solar 101: Learn How to Go Solar at Home

October 1 @ 12:00 am -11:59 pm - January 15, 2023 @ 12:00 am-11:59 pm



Solarize Philly

October 31, 2022 · 🌐

Tune into [WURD Radio's The Source](#) with Andrea Lawful Sanders tomorrow at 3:30pm to learn about Solarize Philly! We'll be joined by our installer partners, [PosiGen](#), Superior Solar Design, and [Solar States](#).

Listen online at wurdradio.com or 96.1FM/900AM



PHILADELPHIA
ENERGY AUTHORITY



Learn How to Go Solar at Home! on WURD Radio's *The Source* with Andrea Lawful Sanders



Tuesday, November 1st, 3:30-4pm

Live on WURD Radio: 96.1FM/900AM



Tabeen Hossain
Solarize Philly
Program Manager



Julian Burnett
Community Marketing
Manager



Tonya Davis
Co-owner/operator



Doug Davis
Co-owner/operator



Jackson Kusiak
Solar Designer &
Community Solarize
Organizer





American Water Resources Partnership

- ~90K customers in flagship Water and Sewer Line Protection Program
- 20K+ enrolled in new protection products
- \$45MM+ saved in repair costs for consumers
- 74% of claims to date serviced by M/W/DBE contractors
- In FY23 Q2, 5% of all claims and 18% of repair claims had an NOD from PWD - majority of infrastructure repairs are self-identified
- 5,400/month calls handled, 93% Customer Satisfaction

C-PACE Program

- Closed largest C-PACE deal in PA in November @ \$30.08MM
- Total Philly C-PACE deals totaled \$100MM at end of 2022
- Challenging market: Interest rate hikes have both sunk many development projects and made C-PACE more attractive

FreezPak Logistics (2201 E. Allegheny Ave)

PROJECT OVERVIEW

Property Type: Cold Storage/Warehouse

Financing Amount: \$30,083,709

Rate and Term: 6.67%, 30 years

Date: 11/30/2022

Building Measures: Envelope, HVAC, Lighting, DHW

Environmental Impact: 30% more energy efficient than required by Philadelphia's building energy code; reduction of the building's total lifetime carbon footprint by 27,849 metric tons of CO2 equivalent



Property Owner:
BGFP Philadelphia LLC



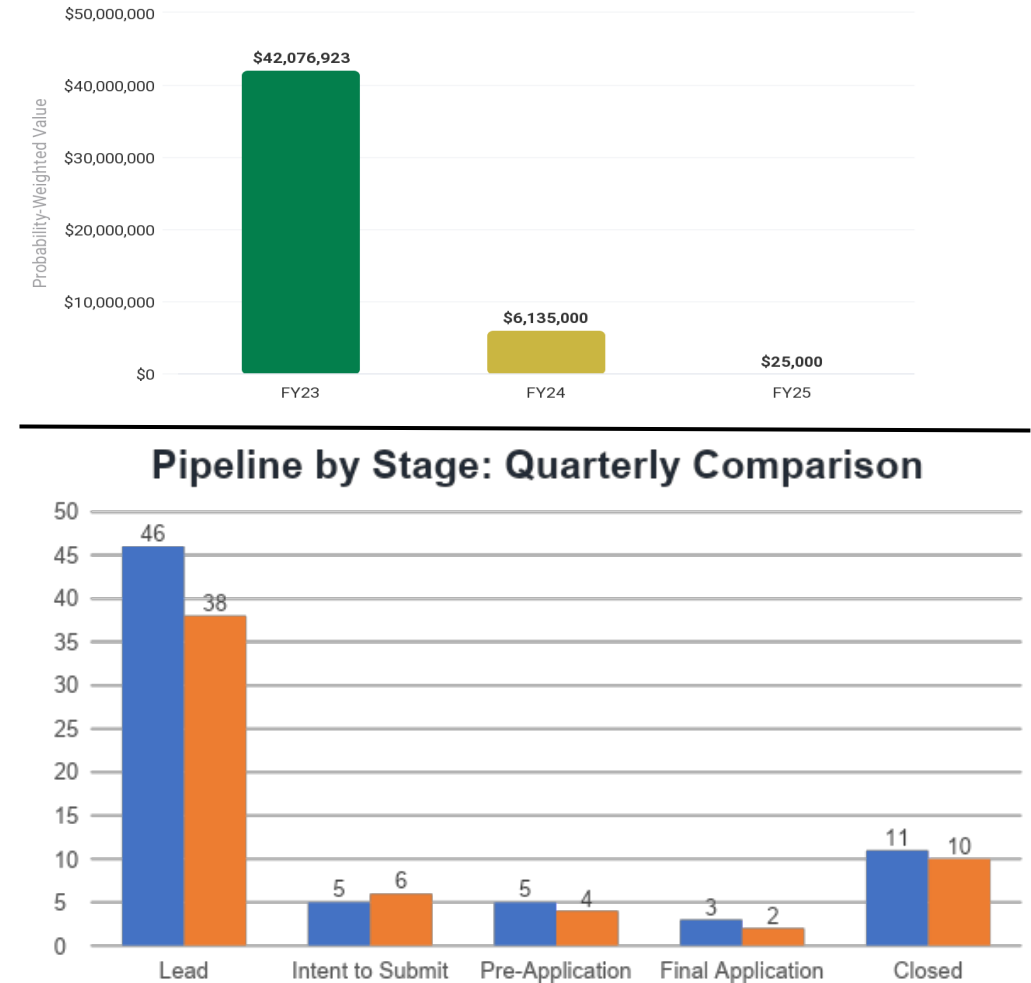
Capital Provider:
Nuveen Green Capital



- \$30MM C-PACE financing to cover **76% of hard and soft costs** of the energy and water efficiency improvements to the building
- The project includes energy efficient walls and glass, interior and exterior LED lighting, variable volume air handlers, freezer evaporators, domestic water heater, and exhaust fans
- Energy savings calculations based on improvements above IECC-2018, Phila.'s energy code baseline and percentage of qualified project financed with C-PACE

C-PACE Pipeline Update

- 56 projects in pipeline (+12% from last quarter)
- Probability-weighted average value of pipeline is ~\$48 MM (down from last quarter due to close of \$30MM deal)
- Several projects expressed intent to close in Q3



Virtual Power Plant (VPP)

- **Request for Information (RFI)** released on October 13, 2022
- **11 responses received** on December 19, 2022 from:
 - International clean energy providers (solar developers, wholesale generators & retail energy providers)
 - Leading VPP software providers
 - Major hardware installers (e.g., battery storage)
- PEA staff and key reviewers are currently reviewing RFIs
- Responses will shape PEA's VPP program design and aid development of RFP
- Key reviewers include PECO, DEP, Penn State, WRI and others



Frankford High School Updates

Major Support

PECO-Funded Solar Instructor Coach FY 22-23, Ky Sanders

Impact

- 15 10th Graders started in the fall of 2022
- First year of graduating 12th graders.
- Focus on internships, summer programming and ongoing recruitment



Bright Solar Futures Program (OppY)

- **Partnership w/ PowerCorpsPHL**
- **Cohort 4:** January 17, 2023, 13 for training + 6-week internships
- Testing out a reduced curriculum focused on solar and electrical
- Adams Solar Residency for commercial training experience upcoming in Spring 2023

Total Results so far:

- 3 Cohorts: 47 participants enrolled, 28 Completed (60%)
- 24 Students were placed into paid internships (86%)
- 10 NABCEP Associates Certifications, 14 OSHA-30s
- 21 Placements to date (Jobs/Apprenticeship/OJTs) (75%)





Green Retrofit Immersive Training (GRIT)

2022 Cohort (May-Sept 2022):

- 12 weeks in the lab at ECA, 6 weeks field internship with PVTC
- Generously funded by City Commerce Dept & William Penn Foundation

Key Stats:

- 20 enrolled
- Graduated: 16 completed (80%)
- Placements: 10 placements (62%)
- Completed Internships: 16 (100%)
- Industry-specific interviews: 16 (100%)
- Ongoing placement and follow-up services through June 2023



GRIT Job Fair at ECA.

Credit: PEA 2022



Department of
Commerce

CITY OF PHILADELPHIA





PGCC Operational Update

- **Financial:**

- National Green Bank formation– participating in RFP process through Coalition for Green Capital
- Working with PEA on final negotiations with DOE for \$2.0MM for Built to Last
- FY21 and FY22 audits are underway

- **Programs:**

- 3 Navigator & Catalyst applications in the intake process– \$3.15M in total, 128 units + nonprofit community space
- Share the Sun has funded solar installations for 17 LMI homes
- Supporting PEA's launch of Phase 2 of Built to Last

Contact

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