



# AGENDA REPORT


**TO:** Jestin D. Johnson  
City Administrator

**FROM:** Joe DeVries  
Deputy City  
Administrator/Chief  
Resilience Officer

**SUBJECT:** Amendment of Enovity's Contract to  
Access California Energy Commission  
Funding for Repairs to Oakland Ice  
Center

**DATE:** March 7, 2024

City Administrator Approval

  
Jestin Johnson (Mar 26, 2024 08:59 PDT)

Date: Mar 26, 2024

## RECOMMENDATION

**Staff Recommends City Council Adopt A Resolution Authorizing The City Administrator To 1) Amend The City Of Oakland's Contract With Enovity Inc. To Include The California Energy Commission's Energy Conservation Assistance Act Low-interest Loan Program; 2) Execute A 20-year Loan Agreement For A Low-interest Loan In An Amount Not To Exceed Three Million Dollars (\$3,000,000) To Address Critical Repairs At The Oakland Ice Center; And 3) Accept And Appropriate A Federal Investment Tax Credit Direct Payment In An Amount Not To Exceed Four Hundred Fifty Seven Thousand Six Hundred Eighty Dollars (\$457,680); And Authorizing Biannual Payments In An Amount Not To Exceed Eighty-three Thousand One Hundred Twenty-three Dollars (\$83,123) Over The Life Of The Loan**

## EXECUTIVE SUMMARY

Approval of the proposed resolution will authorize the City Administrator to approve an amendment to Enovity's existing contract (**Attachment A**) with the City of Oakland (City) that will allow the City to access the California Energy Commission's (CEC) Energy Conservation Assistance Act (ECCA) Low Interest Loan program to facilitate critical repairs, energy efficiency improvements, and the installation of additional solar panels at the Oakland Ice Center (Ice Center).

## **BACKGROUND/LEGISLATIVE HISTORY**

The Ice Center is a City-owned recreational facility located at 519 18th Street in the Uptown area of downtown Oakland. It is a multipurpose ice-skating facility with two ice rinks offering a variety of recreational activities including ice hockey, figure skating, broomball, curling, speed skating, ice dancing and public skating. Sharks Ice, LLC operates the facility for the City pursuant to a Management Agreement amended and extended pursuant to [Resolution 86850](#).

The Ice Center's current refrigeration system, which makes and maintains the ice on the rinks, utilizes the refrigerant R-22, a greenhouse gas now banned by the U.S. Environmental Protection Agency. On-going operation of the Ice Center will require that the City replace this refrigeration system. Resolution 86850 appropriated \$3.8 million in redevelopment bond funds, to be repaid from Ice Center revenues, for this purpose but the cost of replacing the system is estimated to be approximately \$10 million. The recommended action would allow the City to pursue CEC funds to help make up the difference.

The CEC's ECCA program offers one-percent interest rate loans to public entities to finance the up-front costs of energy efficiency and energy generation projects, energy storage systems, and electric vehicle charging infrastructure. The maximum loan amount under the program is \$3 million and loans must be repaid from energy cost savings within 20 years. City staff recommends using this program to expand the solar system on the Ice Center's roof and provide funding towards replacement of its outdated refrigeration system at no net cost to the City. Staff has determined that this program is the best candidate to deliver the funding required to replace the Ice Center's refrigeration system.

Enovity Inc., a Veolia Company, has served as an energy project developer for the City of Oakland under Pacific Gas and Electric's (PG&E) On-Bill Financing (OBF) program since 2012, implementing dozens of turnkey lighting energy efficiency projects at municipal buildings at no cost to the City. On May 15, 2018, City Council approved Resolution No [87184 C.M.S.](#), authorizing the City to participate in the OBF program and the City Administrator to enter PG&E OBF agreements. OBF allows PG&E to incur the up-front costs of the energy efficiency upgrades, which the City then repays on its utility bill as a zero percent interest loan. An amendment to Enovity's contract would provide access to funding through the ECCA program and keep all other provisions in the contract the same.

Enovity would submit the application to the ECCA on behalf of the City and manage construction. ECCA funds would be administered by the CEC via progress payments to Enovity during construction. There would be no direct transfer of funds from the CEC to the City. Payment by the CEC to Enovity would occur after City staff verifies progress made on the project. The City would make biannual payments on the loan of \$83,123. This amount is projected to be covered by the energy cost savings generated by the project as shown in **Attachment B**. Staff would track actual energy cost savings to verify that there is no net cost to the City.

The City would receive a Direct Payment of \$457,680 upon completion of the project through the federal government's Clean Energy Production Tax Credit, part of the Inflation Reduction Act.

### **ANALYSIS AND POLICY ALTERNATIVES**

The CEC's ECCA loan program would generate up to \$3,000,000 in up-front funding for repairs to the Ice Center for improvements that may include retrofitting or replacing interior/exterior lighting, new lighting controls, replacing/upgrading refrigeration and HVAC equipment, replacing gas equipment with electric, enlarging its solar system and installing a battery energy storage system. The energy related improvements will be funded by utilizing the CEC ECCA program, which allows the City to repay the loan over 20 years. Costs of the loan will be covered by energy savings related to equipment upgrades and the expanded solar system. Funding through the CEC program will be coordinated by Enovity. Additional funding from the City will not be required for these improvements. Staff will return to Council with a plan for funding the remaining cost of the refrigeration system.

There is no alternative funding identified for this project. The City could choose not to make these repairs but that would result in the eventual closure of the Ice Center.

Providing a functional, energy efficient, and solar-powered Oakland Ice Center supports the Citywide Priority of **Vibrant Sustainable Infrastructure**.

### **FISCAL IMPACT**

The amendment of Enovity's contract to allow access to CEC ECCA funds will have a positive fiscal impact to the City. By using this funding mechanism and a turnkey project developer, the City will be able to keep the Ice Center open and functional without affecting the City's General Fund. Upon completion of the project through the federal government's Clean Energy Production Tax Credit, a part of the Inflation Reduction Act, the City will receive a direct payment in the amount of \$457,680. These funds will be deposited and appropriated in a Fund to be determined, Sustainability and Energy Group Org (02161), and in a Project to be determined. This Fund will also be used to make payments on the loan.

### **PUBLIC OUTREACH / INTEREST**

No direct public outreach was conducted in the completion of this report.

### **COORDINATION**

Staff from the City Administrator's Office's Sustainability and Resilience Division and Oakland's Real Estate Division coordinated on the use of funding from energy savings, improvements to the Ice Center solar system, and repairs to the refrigeration system at the Oakland Ice Center.

This report, resolution and agreement was reviewed by the City Attorney and Finance Department Budget Bureau.

### **SUSTAINABLE OPPORTUNITIES**

***Economic:*** Facilitating access to CEC funding is the most cost-effective strategy to provide critical repairs to the Oakland Ice Center. These critical repairs will allow the Oakland Ice Center to stay in operation, bringing additional foot traffic to Oakland's downtown area that supports other local businesses.

***Environmental:*** The replacement of the Ice Center's current refrigeration unit with a modern, energy-efficient model will decrease greenhouse gas emissions and pollution. The addition of solar panels to the Ice Center's roof will lower the City's greenhouse gas emissions by generating renewable energy.

***Race & Equity:*** The Oakland Ice Center provides a place for recreation for Oakland's underserved and underrepresented communities. It is the only space for many Oaklanders to access ice skating, ice hockey and related activities.

**ACTION REQUESTED OF CITY COUNCIL**

Staff Recommends City Council Adopt A Resolution Authorizing The City Administrator To 1) Amend The City Of Oakland's Contract With Enovity Inc. To Include The California Energy Commission's Energy Conservation Assistance Act Low-interest Loan Program; 2) Execute A 20-year Loan Agreement For A Low-interest Loan In An Amount Not To Exceed Three Million Dollars (\$3,000,000) To Address Critical Repairs At The Oakland Ice Center; And 3) Accept And Appropriate A Federal Investment Tax Credit Direct Payment In An Amount Not To Exceed Four Hundred Fifty Seven Thousand Six Hundred Eighty Dollars (\$457,680); And Authorizing Biannual Payments In An Amount Not To Exceed Eighty-three Thousand One Hundred Twenty-three Dollars (\$83,123) Over The Life Of The Loan

For questions regarding this report, please contact Nick Kordesch, Energy Program Manager, at (510) 238-6266.

Respectfully submitted,



Daniel Hamilton  
Sustainability and Resilience Director, City  
Administrator's Office

Prepared by:  
Nick Kordesch, Energy Program Manager, City  
Administrator's Office

Attachments (2):

- A: Amendment to Enovity Contract
- B. Scope of work and financial analysis of Oakland Ice Center solar and energy efficiency project

# AMENDMENT NO. 2 TO THE AGREEMENT

Whereas this Amendment dated **February 12, 2024** amends the original agreement dated September, 1, 2018, by and between the City of Oakland, a municipal corporation (hereinafter “City”), and **Enovity, Inc.** (hereinafter “Consultant”), for **Project # 1000927B City of Oakland Energy Efficiency Projects using PG&E On-Bill Financing and the CEC Energy Conservation Assistance Act – Low-Interest Loans Group #3 (A29)**. Now, therefore, it is mutually understood and agreed by and between the undersigned parties that the Agreement is amended as follows:

**1. Section 1 Compensation** is amended as follows:

The estimated total value of the Project, inclusive of labor and materials, is **Three Million Dollars 00/100 (\$3,000,000.00)** for Group #3 locations. No other changes are being made to existing billing or payment terms.

**2. Period of Performance** is amended as follows:

The period of performance of the agreement is extended from **September 1, 2022 to January 31, 2026.**

**3. Scope of Services** is amended as follows: Consultant agrees to continue to provide services required in the original contract and those described in the attached Exhibits.

- **Exhibit A – Location Map**
- **Exhibit B - Scope of Services**
- **Exhibit C – Project Schedule**
- **Exhibit D – Insurance Requirements**

**4. Minimum Wage Ordinance** Oakland employers are subject to Oakland’s Minimum Wage Law whereby Oakland employees must be paid the current minimum wage. Employers must notify employees of the annually adjusted rates by each December 15<sup>th</sup> and prominently display notices at the job site. The law requires paid sick leave for employees and payment of service charges collected for their services. For further information, please refer to: <http://www2.oaklandnet.com/Government/o/CityAdministration/d/MinimumWage/OAK051451>

**5. Sanctuary City Contracting and Investment Ordinance (Schedule I)**

Ordinance N.O. 13540 CMS was adopted by the Oakland City Council on June 4th, 2019 and prohibits the City from contracting with any person or entity that provides the United States Immigration and Customs Enforcement (ICE) services or goods for data collection or with the United States Customs and Border Protection (CBP) Customs and Border Protection (CBP), or the Department of Health and Human Services Office of Refugee Resettlement (HHS/ORR) to support immigration detention facilities. These contractors are not to be used unless the City Council makes a specific determination that no reasonable alternative exists. The ordinance also prohibits the City from investing in any of these companies and requires

the City to include notice of these prohibitions in any Requests for Proposals (RFPs), Requests for Qualifications (RFQs), and any construction or other contracting bids. The ordinance also requires that the City provide an annual report to the Privacy Advisory Commission on its enforcement.

**6. Section 25 Living Wage Adjustments (Schedule N)** is amended as follows:

Minimum compensation - Effective July 1, 2021 through June 30, 2022, the minimum compensation for Consultant's employees who perform services under or related to this amendment is the hourly wage rate of \$15.30 with health benefits or \$17.56 without health benefits.

Health Benefits - Said full-time and part-time employees paid at the lower living wage rate shall be provided health benefits of at least \$2.26 per hour. Consultant shall provide proof that health benefits are in effect for those employees no later than 30 days after execution of the contract or receipt of City financial assistance.

**7. Border Wall Prohibition (Schedule W)**

This contract is subject to the Border Wall Ordinance of Oakland Municipal Code Ordinance 13459 C.M.S. The ordinance mandates and directs the City Administrator, when there is no significant additional cost (to be defined in regulations) or conflict with law, to refrain from entering into new or amended contracts to purchase professional, technical, scientific or financial services, goods, construction labor and materials or other services, or supplies from businesses that enter into contracts to provide such services, goods, materials or supplies to build the U.S. - Mexico border wall.

The City of Oakland shall be prohibited from entering into any contractual agreement for the purchase of services, goods, equipment, cyber network or cloud computing, internet, or cloud-based computer technology or services with any "BORDER WALL ENTITY" individual, firm, or financial institution who provides any services, goods, equipment, or information technology or cloud-based technology or services, to construct any part of the U.S. - Mexico border wall.

All other terms and conditions of the original agreement, except for those modified by this Amendment, shall remain unchanged and in full force and effect.

**ENOVITY INC.**

**DEPARTMENT DIRECTOR**

\_\_\_\_\_  
Tim Chin Date  
Sr. Vice President

\_\_\_\_\_  
Public Works Department Date

*Approved as to form and legality:*

**CITY OF OAKLAND**  
**(a municipal corporation)**

\_\_\_\_\_  
Office of the City Attorney Date

\_\_\_\_\_  
Office of the City Administrator Date

City Council Resolution No. 87184  
Oakland Business Tax Certificate No. 00188433  
Contract Purchase Order No.  
DIR Project ID No. NA



**EXHIBIT A – PROJECT LOCATIONS**

**EXHIBIT B – SCOPE OF WORK**

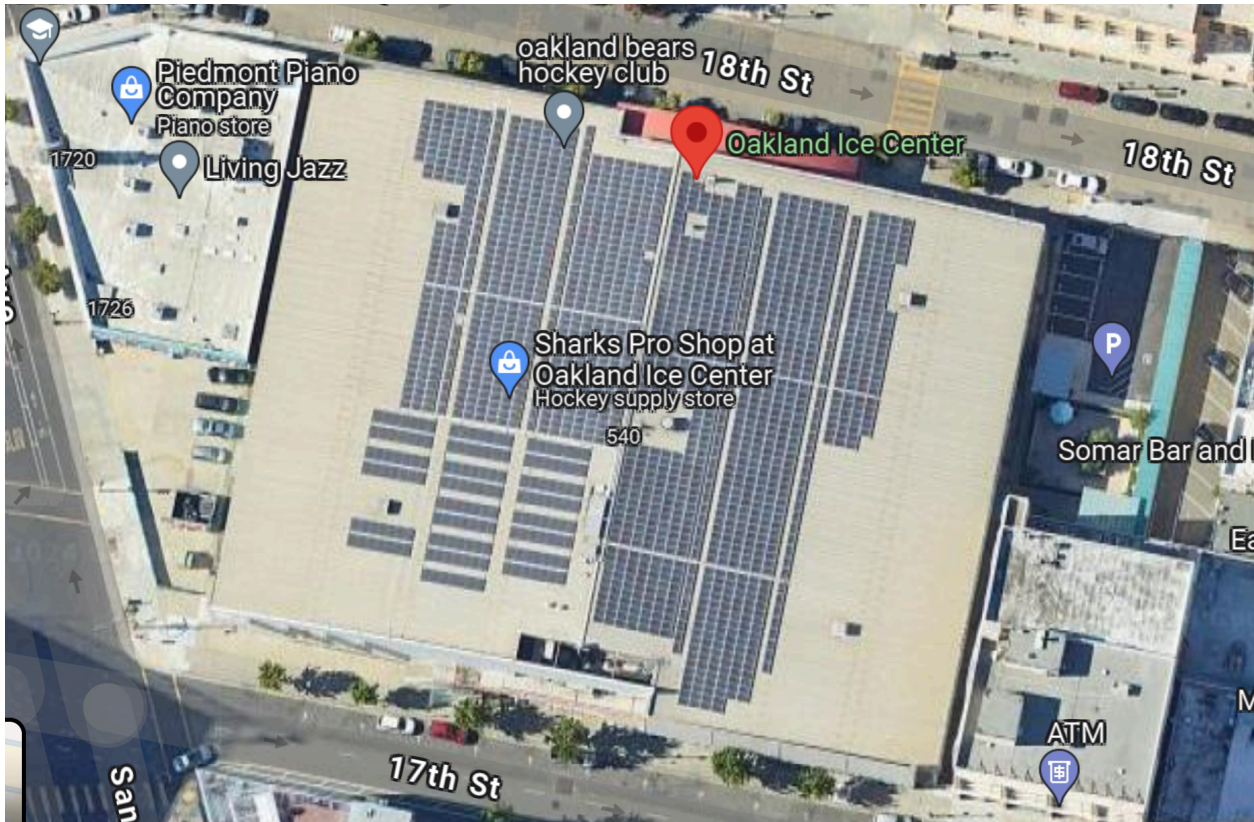
**EXHIBIT C – PRELIMINARY PROJECT SCHEDULE**

**EXHIBIT A – Project Locations**

**(Location A29)**

**Oakland Ice Center**

**519 18th St, Oakland, CA 94612**



## EXHIBIT B – Scope of Work

Implement energy related improvements throughout the Oakland Ice Center (OIC). Energy related improvements include, but are not limited to; retrofitting or replacing interior/exterior lighting, new lighting controls, replacing/upgrading refrigeration and HVAC equipment, replacing gas equipment (electrification), upgrading solar PV and installing a battery energy storage system. The energy related improvements will be funded by utilizing PG&E's On-Bill Financing (OBF) Program and/or the CEC Energy Conservation Assistance Act – Low-Interest Loan Program. Funding through these programs will be coordinated by Enovity. Additional funding from the City will not be required but can be incorporated into the project if requested by the City. The facility included in the scope of work is the Oakland Ice Center (OIC) located at 519 18th St, Oakland, CA 94612.

### RESPONSIBILITIES OF ENOVITY

#### Funding Pre-Approval

1. Enovity will work with the City to clarify the various funding sources available, review the pros and cons of each, and identify potentially viable funding pathways for the Project.
2. Enovity will work with the City to compile funding documentation for signature, submit the documentation to the chosen funding source(s), and follow up on the funding approval process.

#### Initial Site Assessment (ISA)

3. Enovity will work with the City to identify, evaluate, perform preliminary design work, and attempt to secure funding for the measures identified at the City facility.
4. Enovity will perform the following tasks to develop a Project that meets the City's Investment Criteria:
  - a. Perform an Initial Site Inspection to identify measures
  - b. Coordinate a measures list review meeting with City to review the measures and confirm interest
  - c. Identify funding sources that may not support the measures of interest.
  - d. Perform on-site data collection, pre-measurements, and trend data that will be utilized in the preliminary measure analysis
  - e. Prepare preliminary measure analysis and budgetary construction cost to be incorporated into a preliminary Project proposal ("Budget Proposal")
  - f. Provide Budget Proposal for City review and approval
  - g. Interface with funding source(s) to confirm conformance of the Budget Proposal and facilitate final City selection of the most viable funding source(s).

#### Firm Fixed Price Proposal (FFPP)

5. Enovity will develop a detailed analysis and tailored solutions for the final scope of work, obtain subcontractor bids as needed, consider flow-down terms and conditions of the

selected third-party funding source(s), and develop a firm-fixed implementation cost and Project implementation schedule.

6. Enovity will provide a Firm Fixed Price Proposal (FFPP) to the City for review and approval.

## **RESPONSIBILITIES OF CITY**

### Funding Pre-Approval

1. City will submit required pre-approval documentation for the funding source(s) of interest.
2. City will execute documents required to secure terms and commitment for the preferred funding source(s).
3. City will pay all required utility interconnection fees directly to the utility.

### Initial Site Assessment (ISA)

4. City will provide Enovity scheduled access to each City Facility to perform the ISA and participate in project meetings upon request.
5. City will participate in a Measures List Review Meeting to review the measures with Enovity and confirm what measures City is interested in pursuing.
6. City will provide Enovity with any prior audit reports, drawings, and facility information required to evaluate the identified measures.
7. City will work with Enovity to develop a Project conforming to the Investment Criteria.
8. The City will review and approve a Budget Proposal, prepared by Enovity, for conformance with Investment Criteria, finalize the selection of the most viable funding source(s), and provide the terms and conditions of the selected funding source(s) as it may pertain to Enovity.

### Firm Fixed Price Proposal (FFPP)

9. City will review the Firm Fixed Price Proposal (FFPP) and negotiate in good faith with Enovity to agree on terms for an implementation contract.
10. The Customer will execute any third-party agreements needed to fund the Project.

## PROJECT SCHEDULE

The project schedule will be developed and approved by the City once the project has been fully developed. A preliminary project schedule is provided in Exhibit C.

## PROJECT COST

A final scope of work and firm fixed price proposal will be provided to the City for approval prior to moving forward with the project. A high level rough order of magnitude estimate has been provided.

<b>BASE PROJECT COST</b>	<b>\$ 3,000,000</b>
<b>CONTINGENCY</b>	<b>\$ -</b>
<b>TOTAL PROJECT COST</b>	<b>\$ 3,000,000</b>
<b>FEDERAL ITC CASH PAYMENT</b>	<b>\$ 457,680</b>
<b>ECAA LOAN AMOUNT</b>	<b>\$ 3,000,000</b>
<b>ECAA FINANCE TERM (YEARS)</b>	<b>20</b>
<b>ECAA INTEREST RATE</b>	<b>1.00%</b>
<b>UTILITY ESCALATION</b>	<b>4.0%</b>
<b>CALCULATED SAVINGS</b>	<b>\$ 150,000</b>
<b>SOLAR O&amp;M COST</b>	<b>\$ 12,014</b>
<b>O&amp;M/MAINT ESCALATION</b>	<b>3.0%</b>



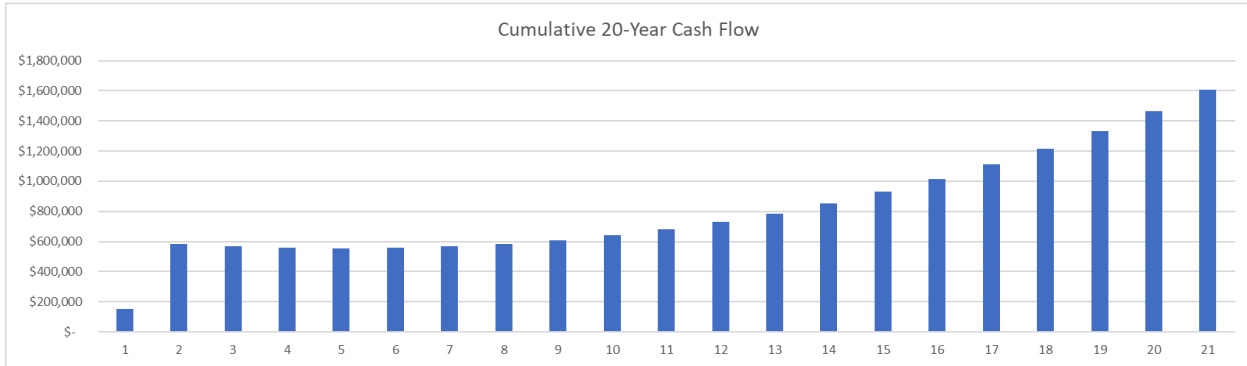
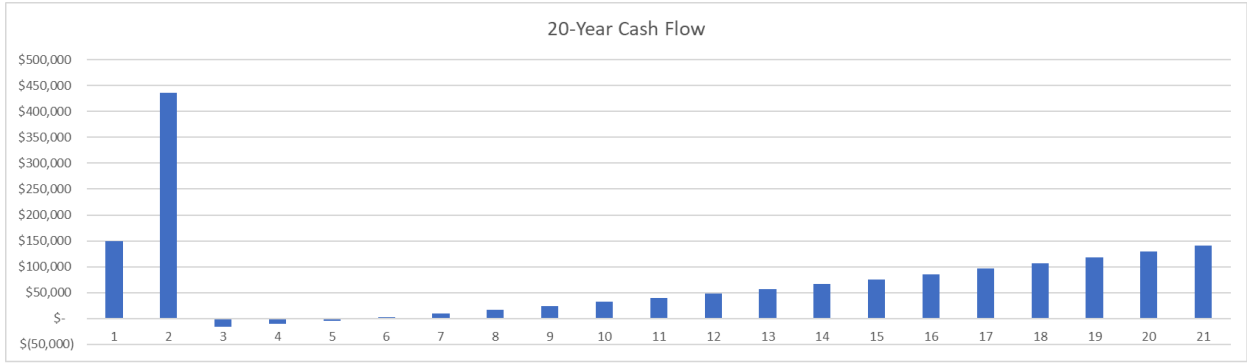
FINANCIAL PRO FORMA



CONFIDENTIAL & PROPRIETARY

Solar Renewable Energy System							
Year	Annual ECAA Loan Payment	O&M & Inverter Replacement	Maintenance Savings & Avoided Capital Expenditure	Grants, Rebates & Incentives	Projected Utility Cost Reduction	Annual Cost Savings	Cumulative Cost Savings
0	\$ -	\$ -		\$ -	\$ 150,000	\$ 150,000	\$ 150,000
1	\$ 166,246	\$ 12,014	\$ -	\$ 457,680	\$ 156,000	\$ 435,420	\$ 585,420
2	\$ 166,246	\$ 12,375	\$ -	\$ -	\$ 162,240	\$ (16,380)	\$ 569,039
3	\$ 166,246	\$ 12,746	\$ -	\$ -	\$ 168,730	\$ (10,262)	\$ 558,777
4	\$ 166,246	\$ 13,128	\$ -	\$ -	\$ 175,479	\$ (3,895)	\$ 554,882
5	\$ 166,246	\$ 13,522	\$ -	\$ -	\$ 182,498	\$ 2,730	\$ 557,612
6	\$ 166,246	\$ 13,928	\$ -	\$ -	\$ 189,798	\$ 9,624	\$ 567,236
7	\$ 166,246	\$ 14,345	\$ -	\$ -	\$ 197,390	\$ 16,798	\$ 584,035
8	\$ 166,246	\$ 14,776	\$ -	\$ -	\$ 205,285	\$ 24,264	\$ 608,298
9	\$ 166,246	\$ 15,219	\$ -	\$ -	\$ 213,497	\$ 32,032	\$ 640,330
10	\$ 166,246	\$ 15,676	\$ -	\$ -	\$ 222,037	\$ 40,115	\$ 680,445
11	\$ 166,246	\$ 16,146	\$ -	\$ -	\$ 230,918	\$ 48,526	\$ 728,971
12	\$ 166,246	\$ 16,630	\$ -	\$ -	\$ 240,155	\$ 57,279	\$ 786,250
13	\$ 166,246	\$ 17,129	\$ -	\$ -	\$ 249,761	\$ 66,386	\$ 852,636
14	\$ 166,246	\$ 17,643	\$ -	\$ -	\$ 259,751	\$ 75,862	\$ 928,498
15	\$ 166,246	\$ 18,172	\$ -	\$ -	\$ 270,142	\$ 85,723	\$ 1,014,221
16	\$ 166,246	\$ 18,718	\$ -	\$ -	\$ 280,947	\$ 95,984	\$ 1,110,205
17	\$ 166,246	\$ 19,279	\$ -	\$ -	\$ 292,185	\$ 106,660	\$ 1,216,865
18	\$ 166,246	\$ 19,857	\$ -	\$ -	\$ 303,872	\$ 117,769	\$ 1,334,634
19	\$ 166,246	\$ 20,453	\$ -	\$ -	\$ 316,027	\$ 129,328	\$ 1,463,962
20	\$ 166,246	\$ 21,067	\$ -	\$ -	\$ 328,668	\$ 141,356	\$ 1,605,318
<b>Totals</b>	<b>\$ 3,324,919</b>	<b>\$ 322,823</b>	<b>\$ -</b>	<b>\$ 457,680</b>	<b>\$ 4,795,380</b>	<b>\$ 1,605,318</b>	<b>\$ 1,605,318</b>

<b>Return on Investment</b>	<b>53.51%</b>
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## EXHIBIT C – Preliminary Project Schedule

<b>PROJECT SCHEDULE</b>			
<b>Task Name</b>	<b>Duration</b>	<b>Start</b>	<b>Finish</b>
<b>Project Detailed Development</b>	4 weeks	Mon 04-01-24	Fri 04-26-24
<b>Firm Fixed Price Proposal</b>	2 weeks	Mon 04-29-24	Fri 05-10-24
<b>Contracting / CEC Funding / Other Funding</b>	16 weeks	Mon 04-29-24	Fri 08-16-24
<b>Mobilization &amp; Coordination</b>	2 weeks	Mon 08-19-24	Fri 08-30-24
<b>Final Design &amp; Submittals</b>	4 weeks	Mon 09-02-24	Fri 09-27-24
<b>Procurement &amp; Construction</b>	12 weeks	Mon 09-30-24	Fri 12-20-24
<b>Certificate of Substantial Completion</b>	1 day	Fri 12-20-24	Fri 12-20-24



# Oakland Ice Center - PV Expansion & Refrigeration Project

*Veolia's mission is to resource the world, providing tangible solutions to help our customers address their environmental and sustainability challenges in energy, water and waste.*

*February 14, 2024*



# Oakland Ice Center - PV & Energy Efficiency Initiative

## Existing Conditions

### PG&E & CCA Energy Use

- 2023 Energy Use - 1,243,624 kWh
- 2022 Energy Use - 753,365 kWh
- 2021 Energy Use - 531,347 kWh

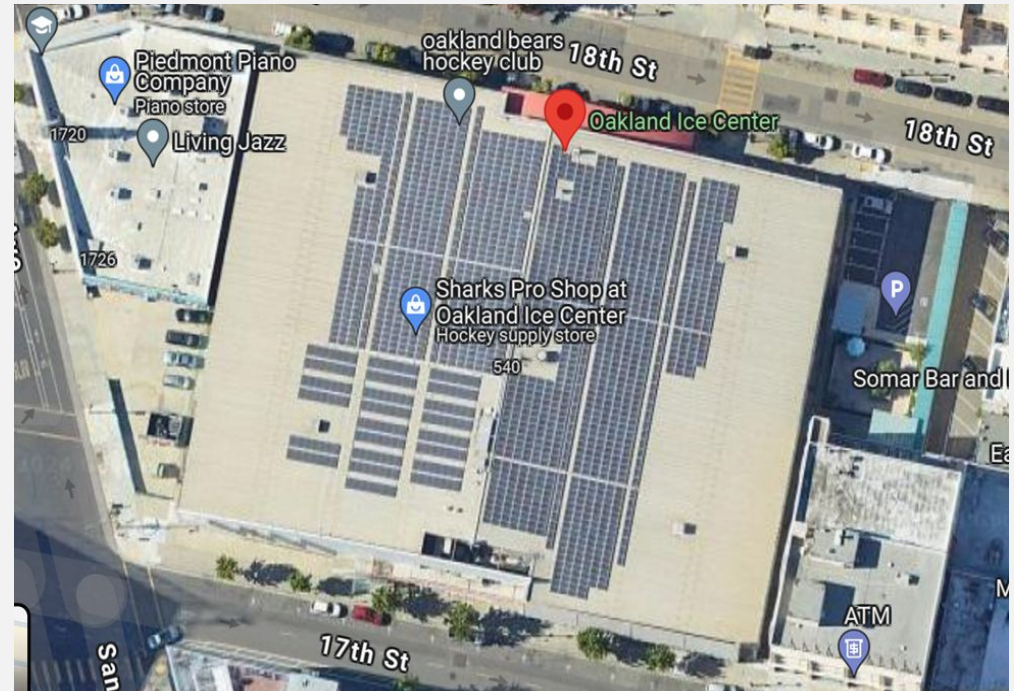
### PG&E & CCA Energy Costs

- 2023 Energy Costs - \$292,346
- 2022 Energy Costs - \$219,717
- 2021 Energy Costs - \$127,376

### PG&E & CCA Average Energy Rate

- 2023 Average Energy Rate - \$0.2351
- 2022 Average Energy Costs - \$0.2916
- 2021 Average Energy Costs - \$0.2397

Average Rate Used in Analysis - \$0.2351  
Baseline Year



# Oakland Ice Center - PV & Energy Efficiency Initiative

## PV Expansion Project

- **NEM 2A Application Size - 381.4 kW**
- Final PV System Size - 753.8 kW
- PV Expansion Production - 558,000 kWh/yr
- Total System Cost - \$1,201,410 Including 5% Contingency
- **IFA ITC 40% Direct Pay - \$480,564**
- Discounted System Cost - \$720,846
- **Annual Cost Savings - \$131,186**
- Simple Payback - 5.49 years
- CEC Funding Available - **\$2,230,158**



# Oakland Ice Center - PV & Energy Efficiency Initiative

## PV Expansion Project

- Funded by 1% CEC Loan (**Pre-Approved**)
- Fixed Bi-Annual Payments
- First Payment is Due 12-months after project completion
- Production Guarantee
- 25-year Panel Warranty
- 20-year Extended Inverter Warranty
- Estimated Maintenance Costs - \$12,014/yr
- HUBGRADE Monitoring & Dashboard



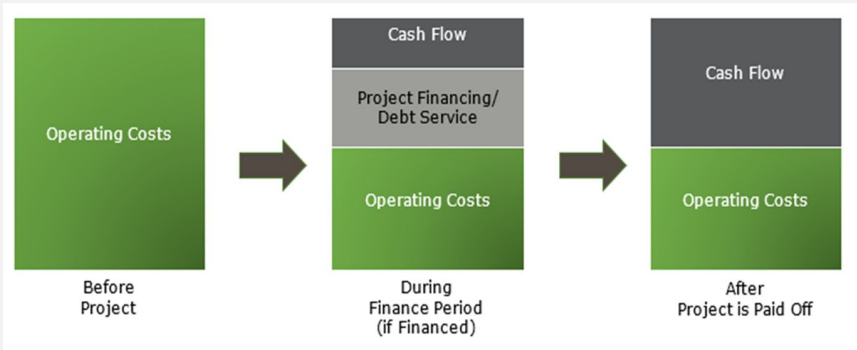
### Performance guarantees

We're already helping industries and facilities like yours so we know we can help you reach your performance goals, too. We guarantee it.

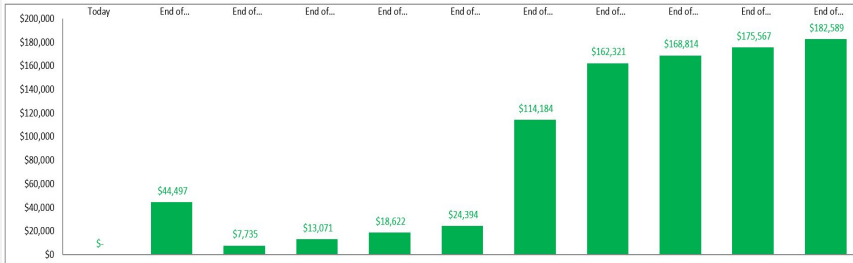


# Oakland Ice Center - PV & Energy Efficiency Initiative

## 1% CEC Funding - Budget Neutrality



### 10-year Cash Flow



# Oakland Ice Center - PV & Energy Efficiency Initiative

## PV Expansion Project - Financial Analysis



FINANCIAL PRO FORMA



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ASSUMPTIONS & INPUTS	
BASE PROJECT COST	\$ 1,144,200
CONTINGENCY	\$ 57,210
TOTAL PROJECT COST	\$ 1,201,410
FEDERAL ITC CASH PAYMENT	\$ 480,564
ECAA LOAN AMOUNT	\$ 1,201,410
ECAA FINANCE TERM (YEARS)	10
ECAA INTEREST RATE	1.00%
UTILITY ESCALATION	4.0%
CALCULATED SAVINGS	\$ 131,186
SOLAR O&M COST	\$ 12,014
O&M/MAINT ESCALATION	3.0%

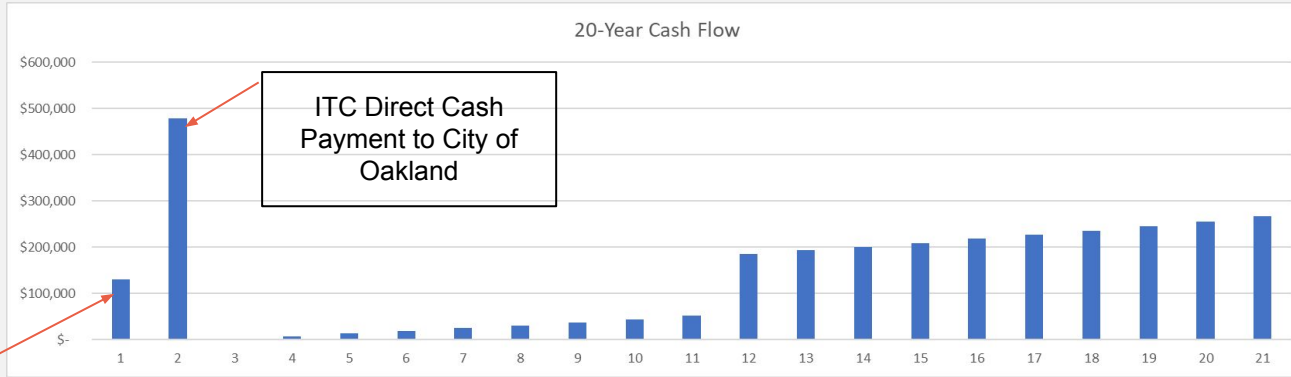
Solar Renewable Energy System							
Year	Annual ECAA Loan Payment	O&M & Inverter Replacement	Maintenance Savings & Avoided Capital Expenditure	Grants, Rebates & Incentives	Projected Utility Cost Reduction	Annual Cost Savings	Cumulative Cost Savings
0	\$ -	\$ -		\$ -	\$ 131,186	\$ 131,186	\$ 131,186
1	\$ 126,847	\$ 12,014	\$ -	\$ 480,564	\$ 136,433	\$ 478,136	\$ 609,322
2	\$ 126,847	\$ 12,375	\$ -	\$ -	\$ 141,891	\$ 2,669	\$ 611,991
3	\$ 126,847	\$ 12,746	\$ -	\$ -	\$ 147,566	\$ 7,973	\$ 619,964
4	\$ 126,847	\$ 13,128	\$ -	\$ -	\$ 153,469	\$ 13,494	\$ 633,458
5	\$ 126,847	\$ 13,522	\$ -	\$ -	\$ 159,608	\$ 19,238	\$ 652,696
6	\$ 126,847	\$ 13,928	\$ -	\$ -	\$ 165,992	\$ 25,217	\$ 677,913
7	\$ 126,847	\$ 14,345	\$ -	\$ -	\$ 172,632	\$ 31,439	\$ 709,352
8	\$ 126,847	\$ 14,776	\$ -	\$ -	\$ 179,537	\$ 37,914	\$ 747,266
9	\$ 126,847	\$ 15,219	\$ -	\$ -	\$ 186,719	\$ 44,652	\$ 791,918
10	\$ 126,847	\$ 15,676	\$ -	\$ -	\$ 194,187	\$ 51,664	\$ 843,583
11	\$ -	\$ 16,146	\$ -	\$ -	\$ 201,955	\$ 185,809	\$ 1,029,392
12	\$ -	\$ 16,630	\$ -	\$ -	\$ 210,033	\$ 193,403	\$ 1,222,794
13	\$ -	\$ 17,129	\$ -	\$ -	\$ 218,434	\$ 201,305	\$ 1,424,099
14	\$ -	\$ 17,643	\$ -	\$ -	\$ 227,172	\$ 209,529	\$ 1,633,628
15	\$ -	\$ 18,172	\$ -	\$ -	\$ 236,259	\$ 218,086	\$ 1,851,714
16	\$ -	\$ 18,718	\$ -	\$ -	\$ 245,709	\$ 226,991	\$ 2,078,705
17	\$ -	\$ 19,279	\$ -	\$ -	\$ 255,537	\$ 236,258	\$ 2,314,964
18	\$ -	\$ 19,857	\$ -	\$ -	\$ 265,759	\$ 245,901	\$ 2,560,865
19	\$ -	\$ 20,453	\$ -	\$ -	\$ 276,389	\$ 255,936	\$ 2,816,801
20	\$ -	\$ 21,067	\$ -	\$ -	\$ 287,445	\$ 266,378	\$ 3,083,179
<b>Totals</b>	<b>\$ 1,268,474</b>	<b>\$ 322,823</b>	<b>\$ -</b>	<b>\$ 480,564</b>	<b>\$ 4,193,912</b>	<b>\$ 3,083,179</b>	<b>\$ 3,083,179</b>



Return on Investment 256.63%

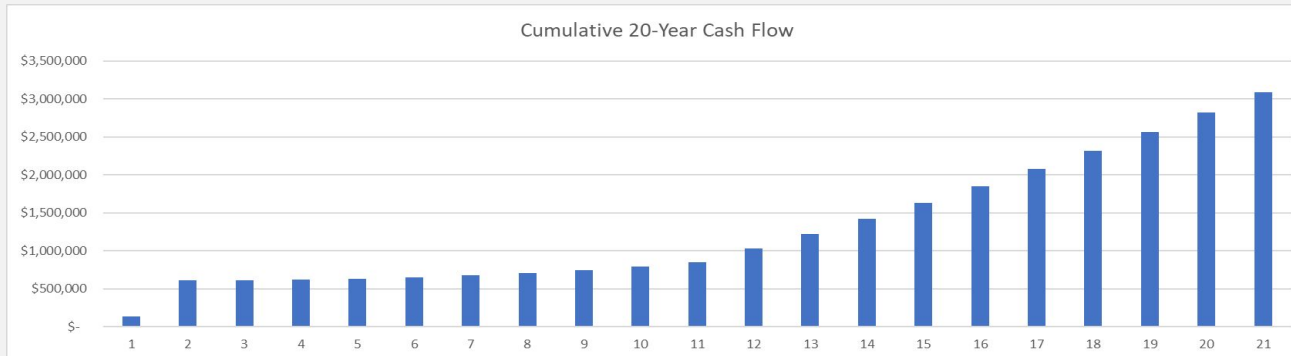
# Oakland Ice Center - PV & Energy Efficiency Initiative

## PV Expansion Project - Financial Analysis - Cash Flows



ITC Direct Cash Payment to City of Oakland

Banked Energy Savings:  
No payments for up to 17 months



# Oakland Ice Center - PV & Energy Efficiency Initiative

## PV Expansion & Refrigeration Project

### PV Expansion & Refrigeration Project

- CEC Funding Available = Annual Project Cost Savings \*17
- CEC Funding is capped at \$3,000,000 / Project
- Annual Project Cost Savings - \$131,186
- CEC Funding Available - \$2,230,159
- PV Expansion Cost - \$1,201,410
- Current Refrigeration Project Funding - **\$1,028,749**
- Potential Refrigeration Project Funding - **\$1,798,590**
- Other Energy Savings Required - \$45,285 / yr





# Oakland Ice Center - PV & Energy Efficiency Initiative

## PV Expansion & Refrigeration Project - Financial Analysis



FINANCIAL PRO FORMA



CONFIDENTIAL & PROPRIETARY

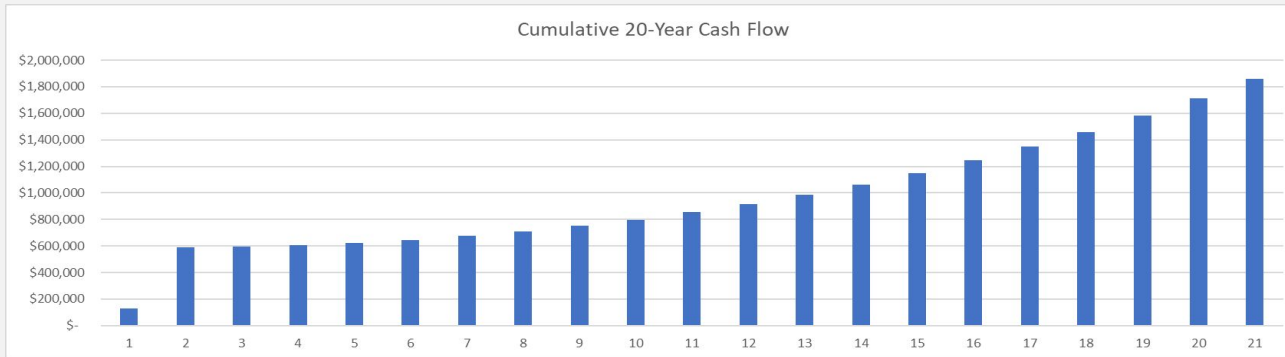
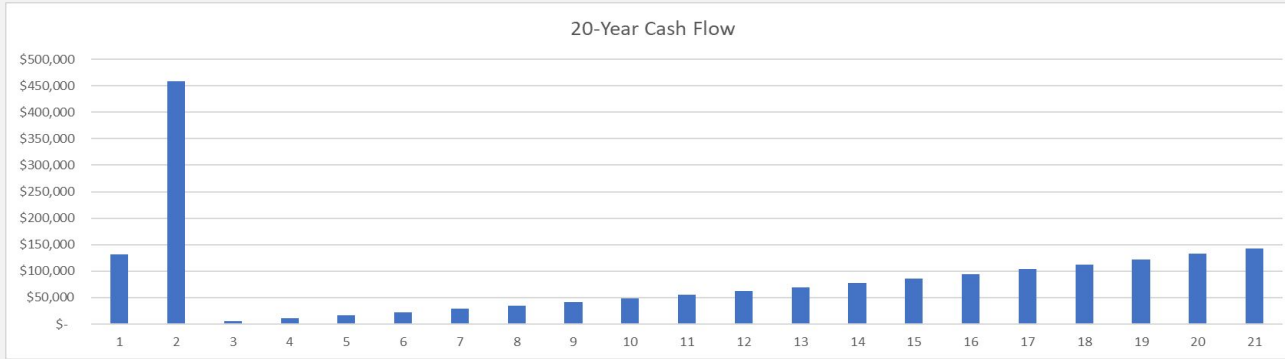
ASSUMPTIONS & INPUTS	
BASE PROJECT COST	\$ 2,230,159
CONTINGENCY	\$ -
TOTAL PROJECT COST	\$ 2,230,159
FEDERAL ITC CASH PAYMENT	\$ 457,680
ECAA LOAN AMOUNT	\$ 2,230,159
ECAA FINANCE TERM (YEARS)	20
ECAA INTEREST RATE	1.00%
UTILITY ESCALATION	4.0%
CALCULATED SAVINGS	\$ 131,186
SOLAR O&M COST	\$ 12,014
O&M/MAINT ESCALATION	3.0%

Solar Renewable Energy System							
Year	Annual ECAA Loan Payment	O&M & Inverter Replacement	Maintenance Savings & Avoided Capital Expenditure	Grants, Rebates & Incentives	Projected Utility Cost Reduction	Annual Cost Savings	Cumulative Cost Savings
0	\$ -	\$ -	\$ -	\$ -	\$ 131,186	\$ 131,186	\$ 131,186
1	\$ 123,585	\$ 12,014	\$ -	\$ 457,680	\$ 136,433	\$ 458,514	\$ 589,700
2	\$ 123,585	\$ 12,375	\$ -	\$ -	\$ 141,891	\$ 5,931	\$ 595,632
3	\$ 123,585	\$ 12,746	\$ -	\$ -	\$ 147,566	\$ 11,236	\$ 606,867
4	\$ 123,585	\$ 13,128	\$ -	\$ -	\$ 153,469	\$ 16,756	\$ 623,623
5	\$ 123,585	\$ 13,522	\$ -	\$ -	\$ 159,608	\$ 22,501	\$ 646,124
6	\$ 123,585	\$ 13,928	\$ -	\$ -	\$ 165,992	\$ 28,480	\$ 674,604
7	\$ 123,585	\$ 14,345	\$ -	\$ -	\$ 172,632	\$ 34,701	\$ 709,305
8	\$ 123,585	\$ 14,776	\$ -	\$ -	\$ 179,537	\$ 41,176	\$ 750,482
9	\$ 123,585	\$ 15,219	\$ -	\$ -	\$ 186,719	\$ 47,915	\$ 798,396
10	\$ 123,585	\$ 15,676	\$ -	\$ -	\$ 194,187	\$ 54,927	\$ 853,323
11	\$ 123,585	\$ 16,146	\$ -	\$ -	\$ 201,955	\$ 62,224	\$ 915,547
12	\$ 123,585	\$ 16,630	\$ -	\$ -	\$ 210,033	\$ 69,818	\$ 985,365
13	\$ 123,585	\$ 17,129	\$ -	\$ -	\$ 218,434	\$ 77,720	\$ 1,063,085
14	\$ 123,585	\$ 17,643	\$ -	\$ -	\$ 227,172	\$ 85,944	\$ 1,149,028
15	\$ 123,585	\$ 18,172	\$ -	\$ -	\$ 236,259	\$ 94,501	\$ 1,243,530
16	\$ 123,585	\$ 18,718	\$ -	\$ -	\$ 245,709	\$ 103,406	\$ 1,346,936
17	\$ 123,585	\$ 19,279	\$ -	\$ -	\$ 255,537	\$ 112,673	\$ 1,459,609
18	\$ 123,585	\$ 19,857	\$ -	\$ -	\$ 265,759	\$ 122,316	\$ 1,581,926
19	\$ 123,585	\$ 20,453	\$ -	\$ -	\$ 276,389	\$ 132,351	\$ 1,714,277
20	\$ 123,585	\$ 21,067	\$ -	\$ -	\$ 287,445	\$ 142,793	\$ 1,857,070
<b>Totals</b>	<b>\$ 2,471,699</b>	<b>\$ 322,823</b>	<b>\$ -</b>	<b>\$ 457,680</b>	<b>\$ 4,193,912</b>	<b>\$ 1,857,070</b>	<b>\$ 1,857,070</b>
						<b>Return on Investment</b>	<b>83.27%</b>



# Oakland Ice Center - PV & Energy Efficiency Initiative

## PV Expansion & Refrigeration Project - Cash Flows



*Questions?  
&  
Next Steps*

