

Introduction of

*EPIC*TM Energy Performance Improvement Calculator

for



Association of Energy Engineers

Northern Ohio Chapter

November 5, 2020

Presented by:

Brian McCarter, CEO

Sustainable Real Estate Solutions, Inc.



About SRS

- **SRS leadership team is comprised of veterans with 25+ years' experience in commercial property software, data & analytics**
- **Since 2010, SRS has built a nationwide reputation as a leader in state-sponsored C&I EE program administration, e.g., C-PACE**
- **To support these industry-leading programs, SRS has:**
 - Built a suite of proven software solutions
 - Compiled proprietary data and predictive analytics
 - Conducted technical analysis on thousands of EE projects seeking financing
- **EPIC is powered by this state-of-the-art software, data & analytics**

About EPIC

- **Powerful, easy-to-use cloud-based app for equipment replacement projects** (HVAC, EMS, LED, and Custom items)
- **Empowers users, in real time with minimal inputs, to:**



Estimate energy savings



Calculate financial impacts



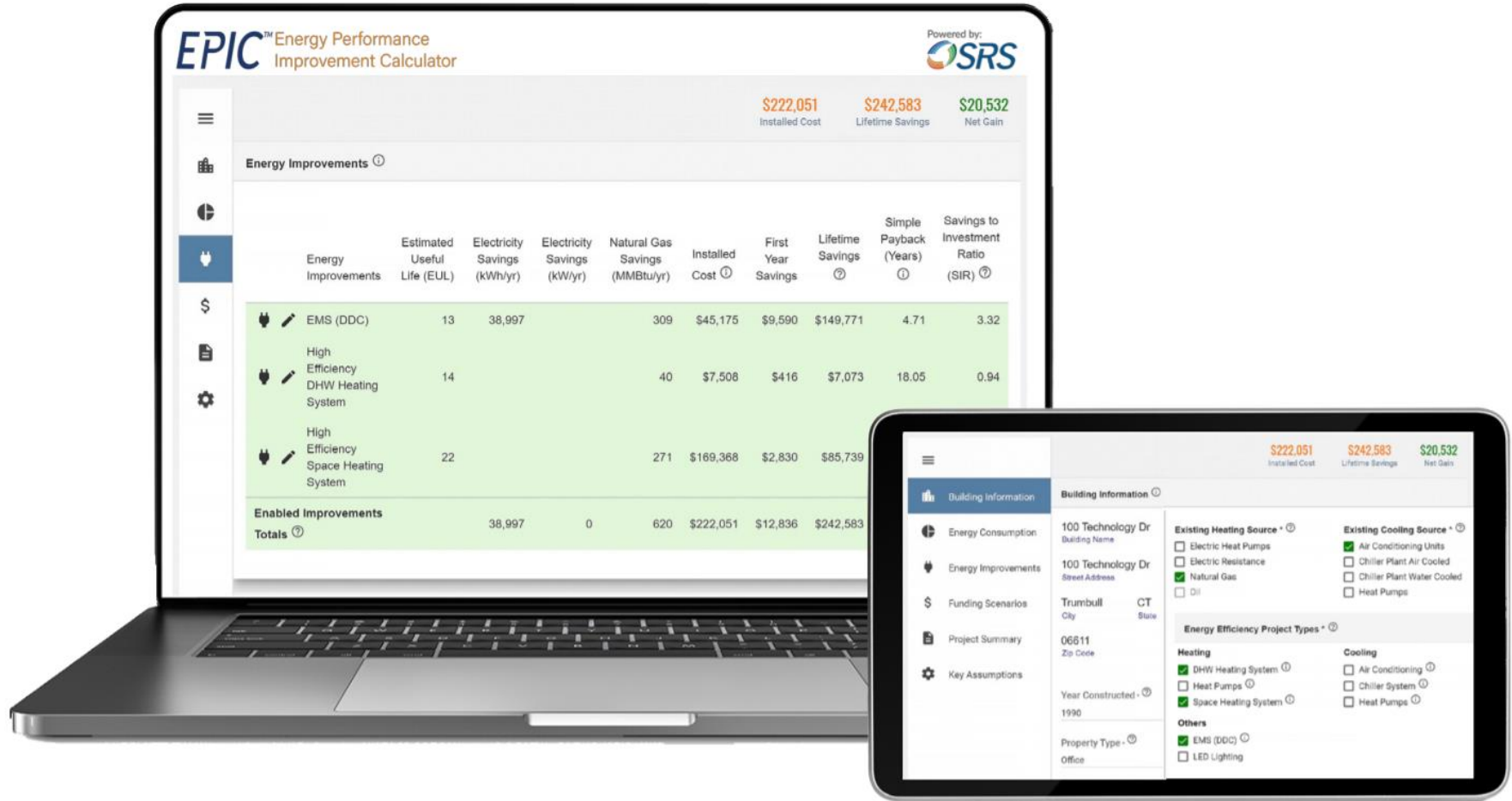
Win more projects!

- **Energy savings calculations are consistent with industry best practice methodology** (ASTM, ASHRAE, ICP)

EPIC for EE Professionals

- Perform a “first-look” at estimated energy cost savings and project implementation costs – even remotely without utility bill data
- Compare energy code minimum versus high efficiency scenarios
- Help owners understand the investment potential of improvements to justify a detailed energy audit, e.g., Level II, where needed
- Make the business case for the owner to invest in EE and drive sales of comprehensive projects

EPIC Demonstration



EPIC: Property Manager

EPICTM Energy Performance
Improvement Calculator

























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 **SRS** ¹

+ Add Property



Select your property below, or click + Add Property above

🔍 Search Property

Building Name	Place/Address	Street Address	City	State	Last Modified	Action ¹
 2 Medical Center Dr	2 Medical Center Dr, Springfield, MA 01107	2 Medical Center Dr	Springfield	MA	09/16/2020 3:23 AM	 
 235 Plain St	235 Plain St, Providence, RI 02905	235 Plain St	Providence	RI	09/16/2020 3:17 AM	 
 1533 California Cir	1533 California Cir, Milpitas, CA 95035	1533 California Cir	Milpitas	CA	08/31/2020 12:21 PM	 
 1455 Kleppe Ln	1455 Kleppe Ln, Sparks, NV 89431	1455 Kleppe Ln	Sparks	NV	08/20/2020 10:55 AM	 
 2 Perlman Dr	2 Perlman Dr, Spring Valley, NY 10977	2 Perlman Dr	Spring Valley	NY	08/19/2020 5:04 AM	 
 1220 Washington St	1220 Washington St, Kansas City, MO 64105	1220 Washington St	Kansas City	MO	08/19/2020 3:14 AM	 
 7230 Lee Deforest Dr	7230 Lee Deforest Dr, Columbia, MD 21046	7230 Lee Deforest Dr	Columbia	MD	08/19/2020 11:30 AM	 
 1460 Tobias Gadson Blvd	1460 Tobias Gadson Blvd, Charleston, SC 29407	1460 Tobias Gadson Blvd	Charleston	SC	08/19/2020 9:26 AM	 

EPICTM Energy Performance
Improvement Calculator

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 **SRS**

EPIC™ Energy Performance Improvement Calculator

Powered by:  **SRS** 

\$712,262
Net Gain

≡



\$



- ☒ Air Conditioning Units
- ☐ Chiller Plant Air Cooled
- ☐ Chiller Plant Water Cooled
- ☐ Heat Pumps

☐ Heat Pumps ⓘ

☒ Air Conditioning ⓘ

☐ Chiller System ⓘ

EPIC: Energy Consumption

Energy Consumption

\$585,317
Installed Cost

\$1,297,579
Lifetime Savings

\$712,262
Net Gain

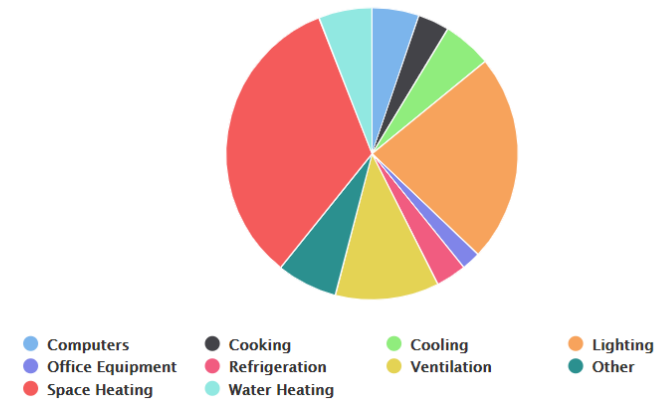
Energy Consumption for Whole Building

Consumption Type	Baseline ^①	Start Date for Baseline Year	Weather Normalized ^②
Electricity (kWh per year)	1,131,511	Sep 7, 2019	1,093,302
Natural Gas (CCF per year)	27,368	Sep 7, 2019	28,094

Weather Normalized Consumption by End-Use ^②

End-Use	Electricity (kWh per year)		Natural Gas (CCF per year)
Computers	101,328	9.27 %	N/A
Cooking	67,358	6.16 %	0.00 %
Cooling	105,277	9.63 %	N/A
Lighting	445,641	40.76 %	N/A
Office Equipment	40,808	3.73 %	N/A
Refrigeration	65,505	5.99 %	N/A

Energy Consumption by End-Use (%)



EPIC: Energy Improvements Summary

EPIC™ Energy Performance Improvement Calculator

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2 Medical Center Dr, Springfield, MA - RTU HE + LED + EMS



Building Information



Energy Consumption



Energy Improvements



Funding Scenarios



Project Summary



Key Assumptions



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\$585,317
Installed Cost

\$1,297,579
Lifetime Savings

\$712,262
Net Gain

Energy Improvements

Energy Improvements ②	Estimated Useful Life (EUL) ①	Electricity Savings (kWh/yr) ②	Peak Demand Reduction (kW) ②	Natural Gas Savings (CCF/yr) ②	Net Installed Cost ①	First Year Savings \$ ①	Lifetime Savings \$ ②	Simple Payback (Years) ①	Savings to Investment Ratio (SIR) ②
⋮ ⚡ 🔧 LED Lighting	12	318,633	105		\$121,973	\$56,747	\$805,361	2.15	6.60
⋮ ⚡ 🔧 Air Conditioning	15	35,442	91		\$307,272	\$13,606	\$249,372	22.58	0.81
⋮ ⚡ 🔧 EMS (DDC)	13	66,530		5,238	\$156,072	\$15,549	\$242,846	10.04	1.56
Enabled Improvements Totals ②		420,605	196	5,238	\$585,317	\$85,902	\$1,297,579		2.22

[+ Other Improvement/Cost](#)

EPIC™ Energy Performance Improvement Calculator

Powered by:  **SRS**

EPIC: Energy Improvements Detail

Air Conditioning

Number of units that are being replaced:

All ☒ Advanced

Existing EER/IEER * [?]	New EER/IEER * [?]	Total Capacity * [?]	Est. Useful Life [?]	Net Installed Cost [?]
7.23 EER ▼	13.50 EER ▼	141.2 Ton ▼	15 Years	\$ 307,272 ...

* indicates EPIC required data fields.

Cancel

Submit

EPIC: Funding Scenarios: Self-fund

EPICTM Energy Performance
Improvement Calculator

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2 Medical Center Dr, Springfield, MA - RTU HE + LED + EMS

\$585,317
Installed Cost

\$1,297,579
Lifetime Savings

\$712,262
Net Gain

Funding Scenarios ⓘ

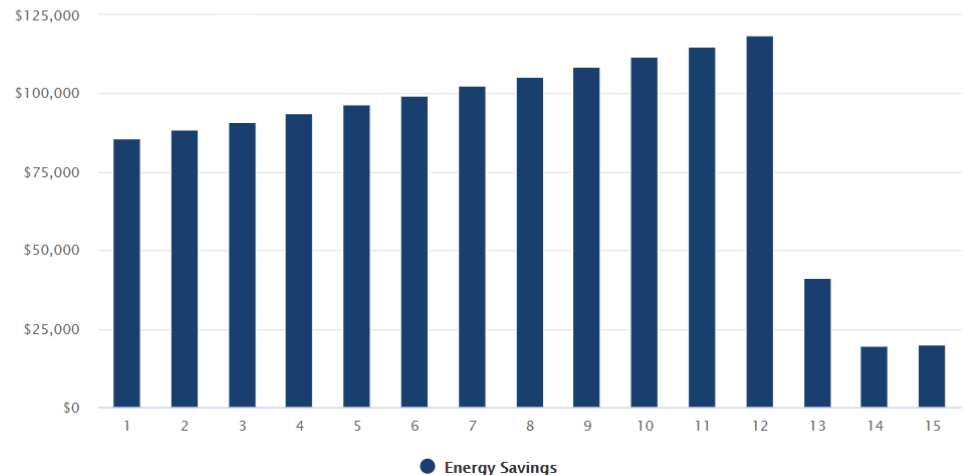
☒ Self-fund ☐ Bank Loan ☐ PACE Finance ⓘ

Net Installed Cost \$585,317

Lifetime Savings \$1,297,579

Net Gain \$712,262

Chart of Energy Savings ⓘ



EPICTM Energy Performance
Improvement Calculator

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EPIC: Funding Scenarios: Bank Loan

EPIC™ Energy Performance
Improvement Calculator

Powered by:
SRS

2 Medical Center Dr, Springfield, MA - RTU HE + LED + EMS



\$585,317
Installed Cost

\$68,396
Interest Cost

\$1,297,579
Lifetime Savings

\$643,866
Net Gain

Funding Scenarios ⓘ

☐ Self-fund ☒ Bank Loan ☐ PACE Finance ⓘ

Owner Contribution % 20 %

Owner Contribution \$ 117,063

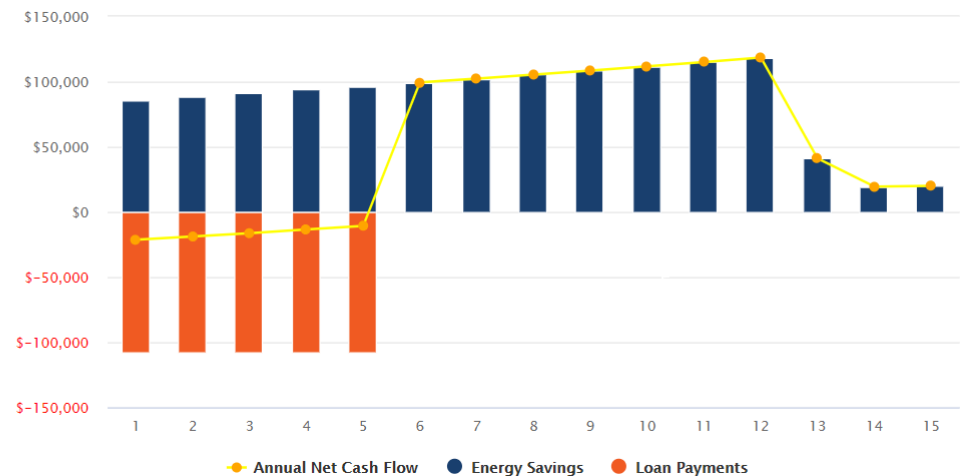
Net Installed Cost \$585,317

Amount Financed \$468,254

Term 5 years

Interest Rate 5.500 %

Chart of Cash Flows ⓘ



EPIC™ Energy Performance
Improvement Calculator

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EPIC: Funding Scenarios: PACE Finance

EPIC™ Energy Performance
Improvement Calculator

Powered by:
SRS

2 Medical Center Dr, Springfield, MA - RTU HE + LED + EMS



\$585,317
Installed Cost

\$318,043
Interest Cost

\$1,297,579
Lifetime Savings

\$394,219
Net Gain

Funding Scenarios ⓘ

☐ Self-fund ☐ Bank Loan ☒ PACE Finance ⓘ

Owner Contribution % 0 %

Owner Contribution \$ 0

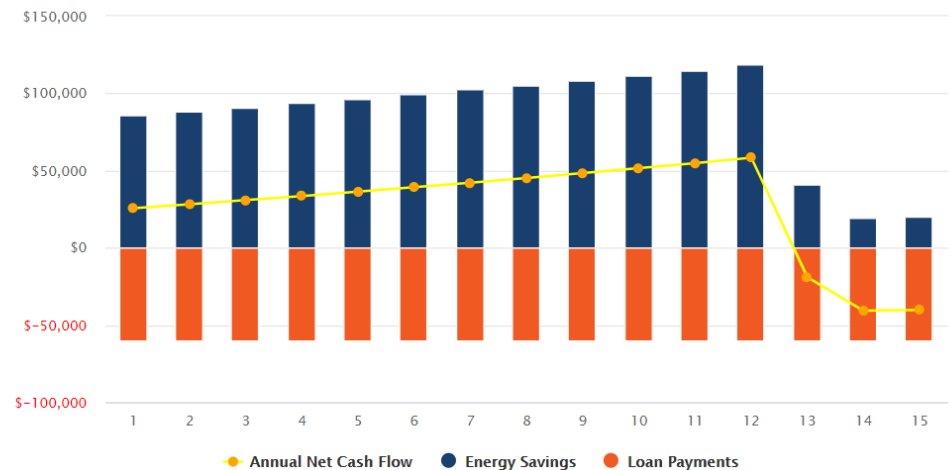
Net Installed Cost \$585,317

Amount Financed \$585,317

Term 15 years

Interest Rate 6.250 %

Chart of Cash Flows ⓘ



EPIC™ Energy Performance
Improvement Calculator

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EPIC: Project Summary & PDF Report

EPIC™ Energy Performance
Improvement Calculator

Powered by: **SRS**

2 Medical Center Dr, Springfield, MA - RTU HE + LED + EMS



Project Summary ⓘ

Energy Improvements Summary

Estimated Energy Savings¹

Energy Improvements	Useful Life (Years)	Incentives	Net Installed Cost ²	Unit Savings First Year	Peak Demand Reduction	Cost Savings First Year	Cost Savings Lifetime ³
LED Lighting	12	\$52,274	\$121,973	318,633 kWh	104.9 kW	\$56,747	\$805,361
Air Conditioning	15	\$34,000	\$307,272	35,442 kWh	91.4 kW	\$13,606	\$249,372
EMS (DDC)	13	\$17,000	\$156,072	66,530 kWh 5,238 CCF		\$15,549	\$242,846
Electricity savings:				420,605 kWh			
Fuel savings:							
Demand reduction:							
Project totals (\$):		\$103,274	\$585,317			\$85,902	\$1,297,579

\$585,317
Installed Cost

\$318,043
Interest Cost

\$1,297,579
Lifetime Savings

\$394,219
Net Gain



EPIC™ Energy Performance
Improvement Calculator

Powered by: **SRS**

EPIC: Key Assumptions

Building Information

Energy Consumption

Energy Improvements

Funding Scenarios

Project Summary

Key Assumptions

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Key Assumptions ⓘ

Energy Costs ⓘ

Electricity Utility Name:	Electricity Cost Escalation Rate: ⓘ 3.00 % per year	Electricity Cost: \$ 0.15 per kWh	Electric Demand Cost: \$ 15.00 per kW
Natural Gas Utility Name:	Natural Gas Cost Escalation Rate: ⓘ 3.00 % per year	Natural Gas Cost: \$ 1.04 per CCF ▼	

Energy Consumption 1 ⓘ

Consumption Type: Electricity	Rate Schedule:	Consumption per Year: * 1,131,511 (kWh per year)	Consumption Year Start Date: * 9/8/2019 📅
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Energy Consumption 2 ⓘ

Consumption Type: Natural Gas	Rate Schedule:	Consumption per Year: * 27,368 (CCF per year) ▼	Consumption Year Start Date: * 9/8/2019 📅
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Financial Metrics

Discount Rate: ⓘ 5.00 %	Capitalization Rate: ⓘ 7.23 %
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EPIC Pricing

Choose the plan that's right for you based on your monthly project volume. Each plan includes access to all EPIC features for your selected maximum number of projects per user, per month.

PAY MONTHLY ☒ PAY YEARLY

Basic

\$159/user/month

- All EPIC features for up to 5 projects per user, per month
- Dedicated Account Manager
- Phone and email support

FREE TRIAL

Premium

\$259/user/month

- All EPIC features for up to 10 projects per user, per month
- Dedicated Account Manager
- Phone and email support

FREE TRIAL

Enterprise

Call for quote

- Custom quote for organizations with high volume project and user needs
- Dedicated Account Manager
- Phone and email support

CONTACT US

You can change plans or cancel your account at any time.

To discuss yearly prepayment plans, at a 15% discount to the above monthly payment rates, [Contact Us](#).

EPIC ROI

EPIC is priced to ensure you earn a return on investment.

See the impact EPIC can have on your business by winning just 1 additional project per year >>>

EPIC's subscription cost is based on the number of projects you create per month. Select the range which best describes your average monthly project volume.

Projects per month: ☒ 1-5 projects ☐ 6-10 projects

Average project amount: \$

Average project profit margin:

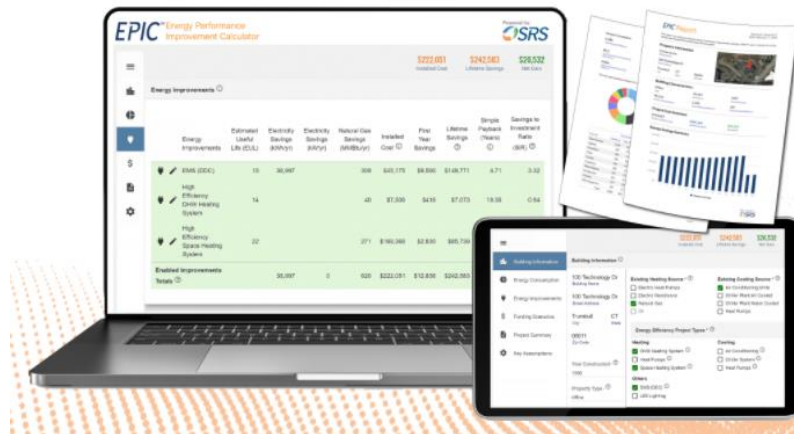


The table below summarizes the compelling financial impact EPIC can have on your business by winning just 1 to 3 additional projects per year.

EPIC-enabled additional project wins per year	1	2	3
Profit on additional project wins	\$25,000	\$50,000	\$75,000
EPIC annual subscription cost	\$1,908	\$1,908	\$1,908
Additional profit as multiple of EPIC cost	13.1	26.2	39.3
EPIC ROI	\$23,092	\$48,092	\$73,092

Next Steps

- Sign up for EPIC 14-day Free Trial
- Explore EPIC capabilities on your current or past projects



To begin a free trial,
create an account and select a plan.

START A FREE TRIAL



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