

NYCEEC

BUILDING FINANCIAL SOLUTIONS

Engineers: Increase Your Bottom Line

Bringing Financing to the Table

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AGENDA

- 1. What's the problem?*
- 2. What's the opportunity?*
- 3. Incorporating financing into your process*
- 4. Questions*

What's the problem?



What to do with all these audit reports...



New client acquisition costs 5x to 20x vs. selling services to existing client

Are the right stakeholders in the room?

A cycle of churning out audits

Acquire client A

Perform audit A

Report out A

Acquire client B

Perform audit B

Report out B

Acquire client C

Is the business case made? Are implementation next steps discussed?

Does this also include a dialog about financial requirements, budgets, and metrics?

Why are lighting projects so popular?





the problem *is* the solution

CONNECTING ALL THE DOTS FOR BUILDING OWNERS



Implementation

- Next steps
- **Financing**
- Incentives
- Design
- Construction
- Cx

Savings Opportunities

- Energy, H2O
- O&M

Capital Improvements

- Major HVAC replacements
- Renewables/CHP

Health, Safety, & Best Practices

- Code compliance
- Getting the job done right
- Cx

Value proposition to engineering firms

- Larger implementation scope
- Do more work with existing clients versus finding new ones



Bob wants to do efficiency in his burger shop...

1. He needs his money back in 2 years
2. He only has \$25,500



Audit Results

Description	Cost	Savings (\$)	Payback (yrs)
Reduce steam boiler pressure setpoint	\$ 500	\$ 1,250	0.4
Demand control ventilation	\$ 5,000	\$ 6,250	0.8
Install low flow faucet aerators	\$ 1,250	\$ 1,000	1.3
Supply air temperature reset control	\$ 3,750	\$ 3,000	1.3
Reprogram VAV minimum box positions	\$ 3,750	\$ 1,750	2.1
Add occupancy sensors in bathrooms and offices	\$ 5,000	\$ 1,250	4.0
Add VFDs to kitchenhood fans	\$ 7,500	\$ 1,750	4.3
Replace T12 lighting with LED in stairwells	\$ 14,500	\$ 2,750	5.3
Add VFDs on supply fans	\$ 13,750	\$ 2,000	6.9
Replace energy recovery ventilators	\$ 62,500	\$ 6,250	10.0
Replace DHW with condensing hot water heaters	\$ 30,000	\$ 2,500	12.0
Install solar array on roof	\$ 56,250	\$ 2,500	22.5
Totals	\$ 203,750	\$ 32,250	6.3

To meet payback and capital requirements:

Description	Cost	Savings (\$)	Payback (yrs)
Reduce steam boiler pressure setpoint	\$ 500	\$ 1,250	0.4
Demand control ventilation	\$ 5,000	\$ 6,250	0.8
Supply air temperature reset control	\$ 3,750	\$ 3,000	1.3
Reprogram VAV minimum box positions	\$ 3,750	\$ 1,750	2.1
Add occupancy sensors in bathrooms and offices	\$ 5,000	\$ 1,250	4.0
Add VFDs to kitchenhood fans	\$ 7,500	\$ 1,750	4.3
Totals	\$ 25,500	\$ 15,250	1.7

With financing

Description	Cost	Savings (\$)	Payback (yrs)
Demand control ventilation	\$ 5,000	\$ 6,250	0.8
Install low flow faucet aerators	\$ 1,250	\$ 1,000	1.3
Supply air temperature reset control	\$ 3,750	\$ 3,000	1.3
Reprogram VAV minimum box positions	\$ 3,750	\$ 1,750	2.1
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Install solar array on roof	\$ 56,250	\$ 2,500	22.5
Totals	\$ 173,250	\$ 28,500	6.1

Value proposition to your clients

- **Extend Payback requirements**
- **More savings = greater Net Operating Income = Revenue / Operating expenses**
- **Increased asset value or Capitalization Rate = NOI/market value**
- **Complete needed cap ex projects**
- **Preserve capital reserves**
- **Provide them off-balance sheet solutions**

Basic loan

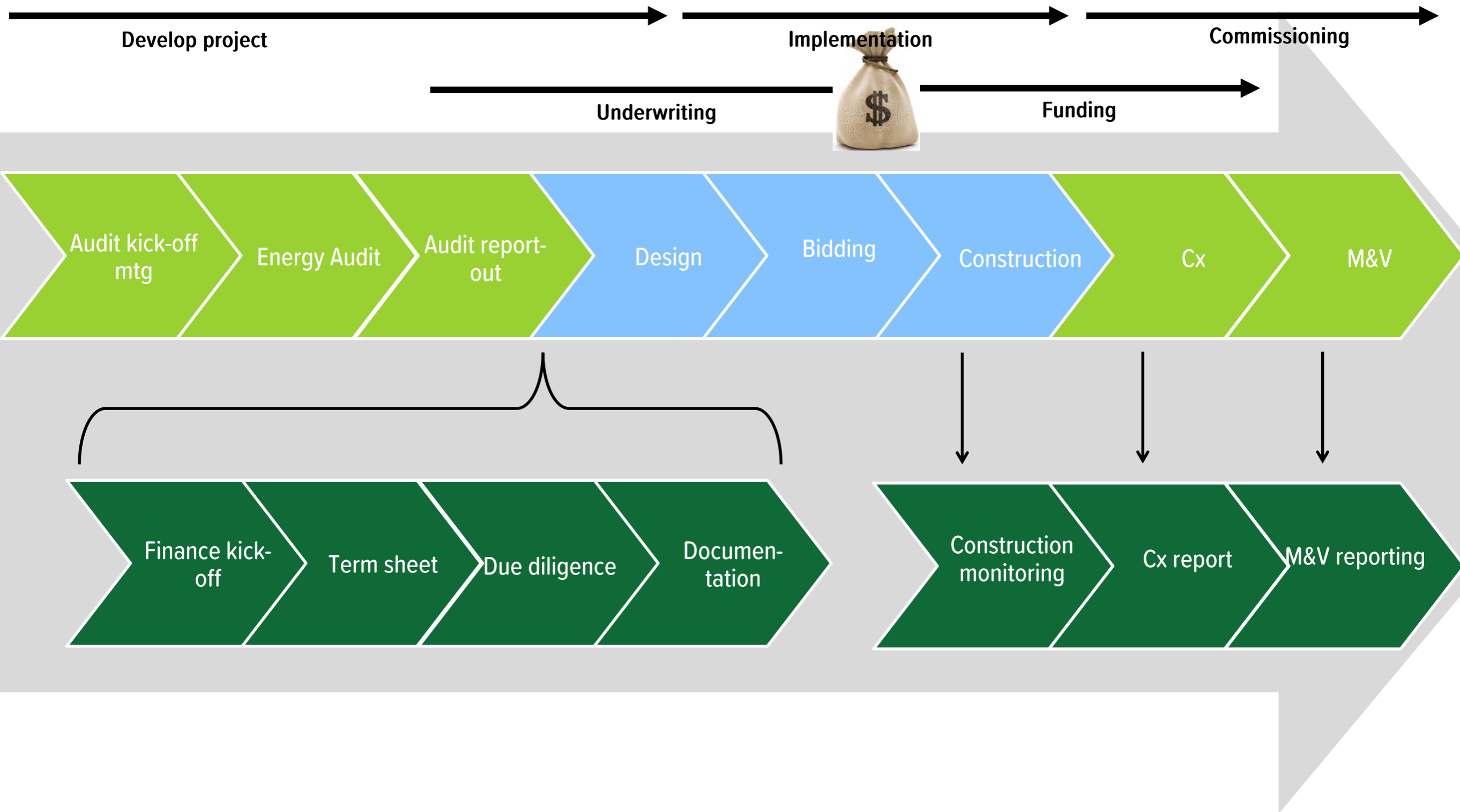
- Down payment (owner equity)
- Interest rate
- Loan term (tenor)
- Borrower pays principal and interest each month over tenor



Zero down!!

Only 5.9% APR for 60 months!!

TYPICAL PROJECT + FINANCING PROCESS



Stakeholders and engagement



More sophisticated financing structures



Financing options/alternatives

- Cash reserves
- Existing lines of credit
- Mortgage refinancing
- Third-party financing

Coordinate to have financial decision-maker at the kickoff

Ask about financing metrics/ requirements & capital projects

into your process

Conduct report out with all stakeholders

Focus on *package* of ECMs and *implementation next steps*

Audit kick-off mtg

Energy Audit

Audit report-out

Investigate EE and cap ex opportunities

Say hello to financial decision maker as part of site visit 😊

Include implementation next steps in audit report

Photo/image credits

1. Soccer player - <https://www.newyorker.com/news/sporting-scene/in-a-moment-of-american-isolation-the-mens-national-team-fails-to-qualify-for-the-world-cup>
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Questions



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