

Funding Whole-Building Energy Savings Projects

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Energy Savings Performance Contract (ESPC)

Comprehensive

20% Savings

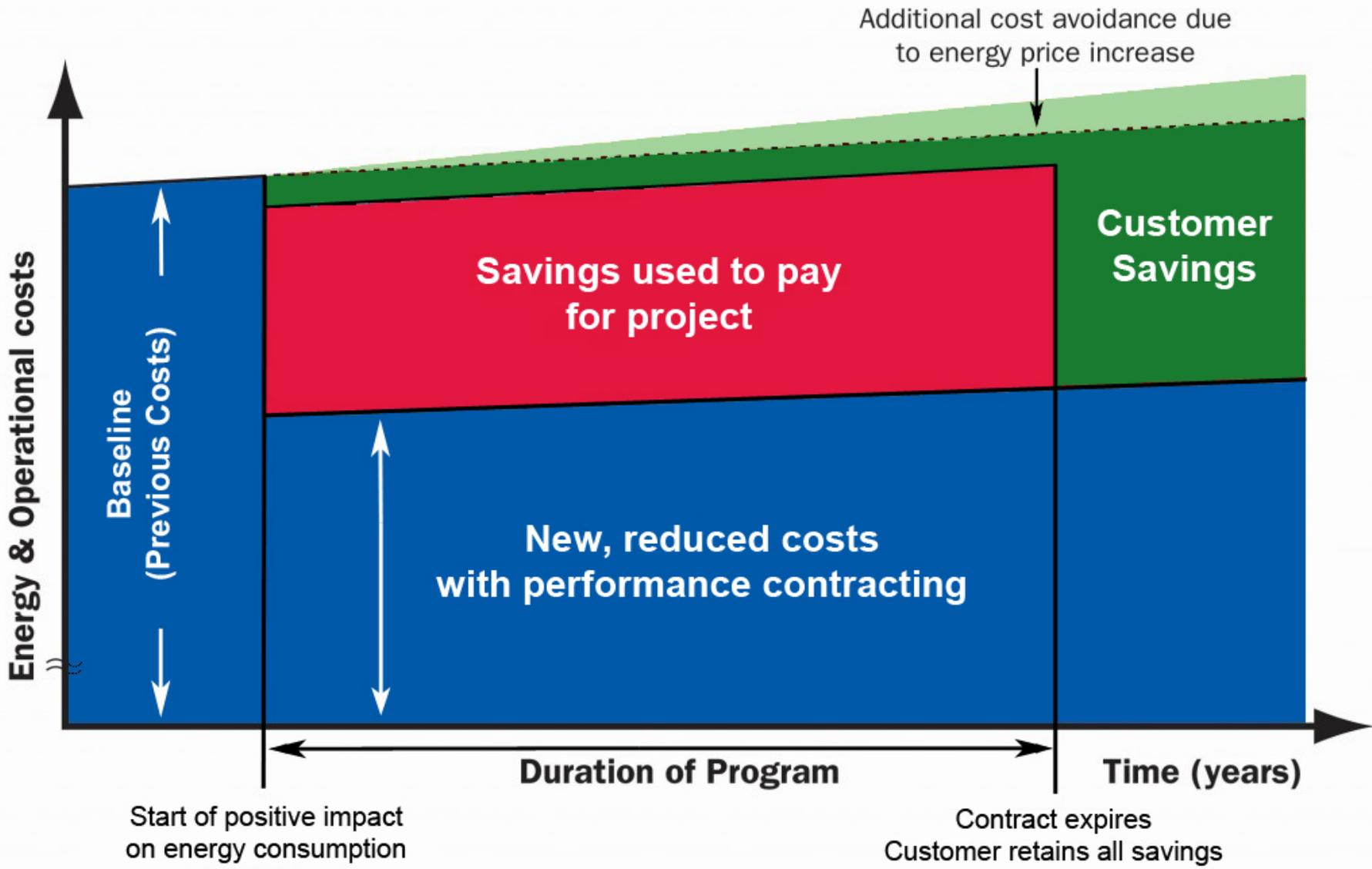
Low up-front cost

Turnkey Solution

ESPC Measures

- *Common*: Lighting, HVAC, motors/pumps, controls, retrocommissioning
- *Advanced*: Renewables, energy storage, load control
- *Cheap*: rate analysis; tweaks to controls, settings, schedules





Benefits of ESPC



- Typically fixed-price contracts
- Includes thorough building and utility bill assessment
- Ideal for inefficient, high-maintenance, or fail-risk equipment (but newer buildings benefit too)
- ROI of \$\$\$ repairs can be more affordable “packaged” in a performance contract (requires some capital)
- Contractor guarantees equipment’s performance and energy savings for 10+ years
- Project costs spread over time
- Some/all project costs paid from guaranteed savings

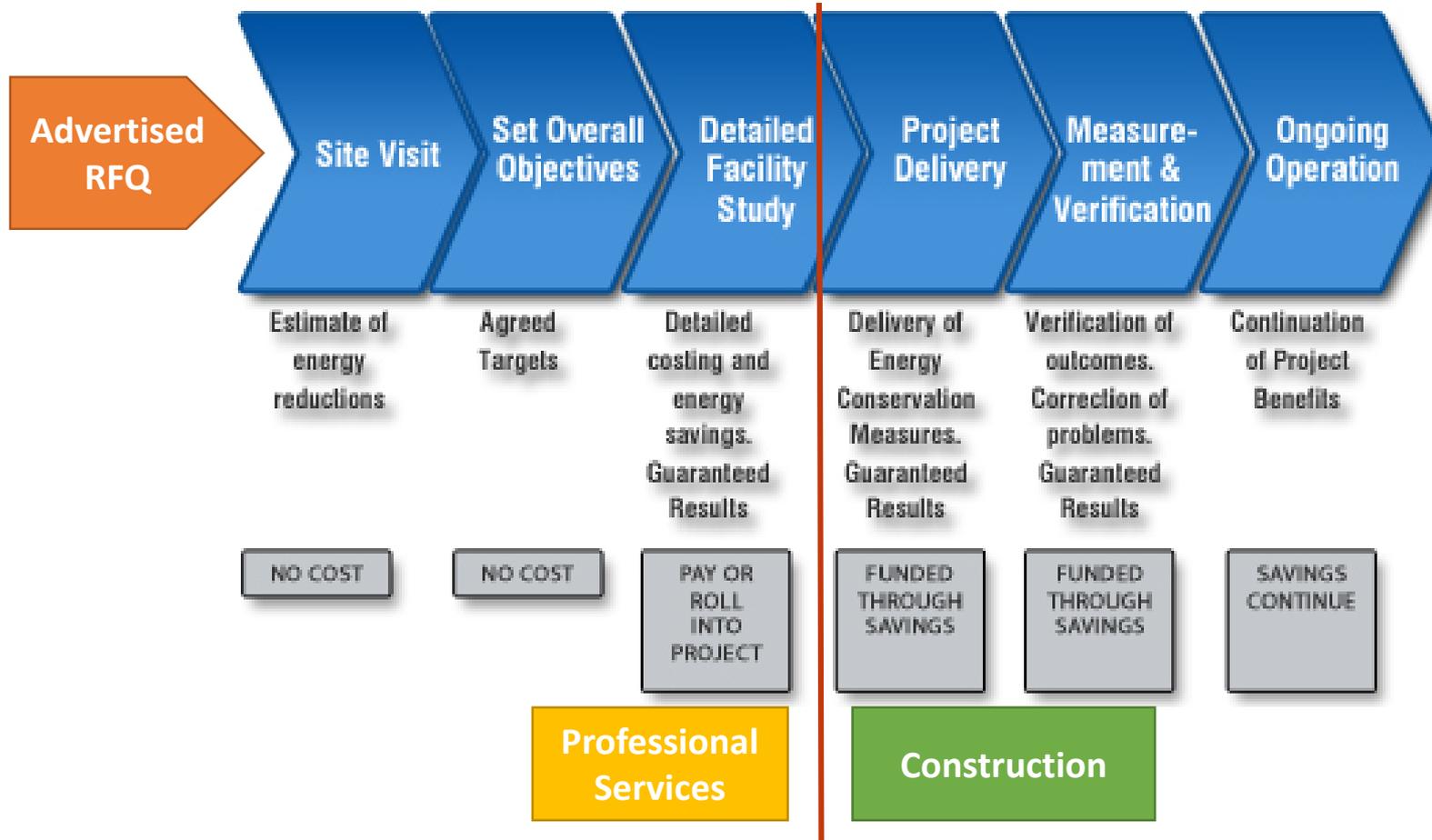
Public-Sector ESPC

- ESPC = GESC
 - “Guaranteed Energy Savings Contract”
- IC 36-1-12.5 “Guaranteed Savings Contracts; Energy Efficiency Programs Used by School Corporations”
- Not just schools but...
 - Public libraries, public water/wastewater utilities, any other political subdivisions
 - *City of South Bend, St. Joseph County, St. Joseph County Airport Authority*

Public-Sector ESPC

- Flexible procurement method
 - Based on priorities, not lowest price
 - Determine scope collaboratively
 - Opportunity for non-energy work (15%)
 - ESCO is general contractor, selects subcontractor
- Pay with low-interest lease or bond
- Attract “green” investors
- Can sometimes get tax benefits (passed thru from lender)

Performance Contracting Process



Century Center Project Scope

- Roof replacement
- Lighting & controls
- HVAC components & controls
- Ceiling tile (as part of lighting)
- Solar photovoltaic (24 kW)
- *Timeline: 18 months*



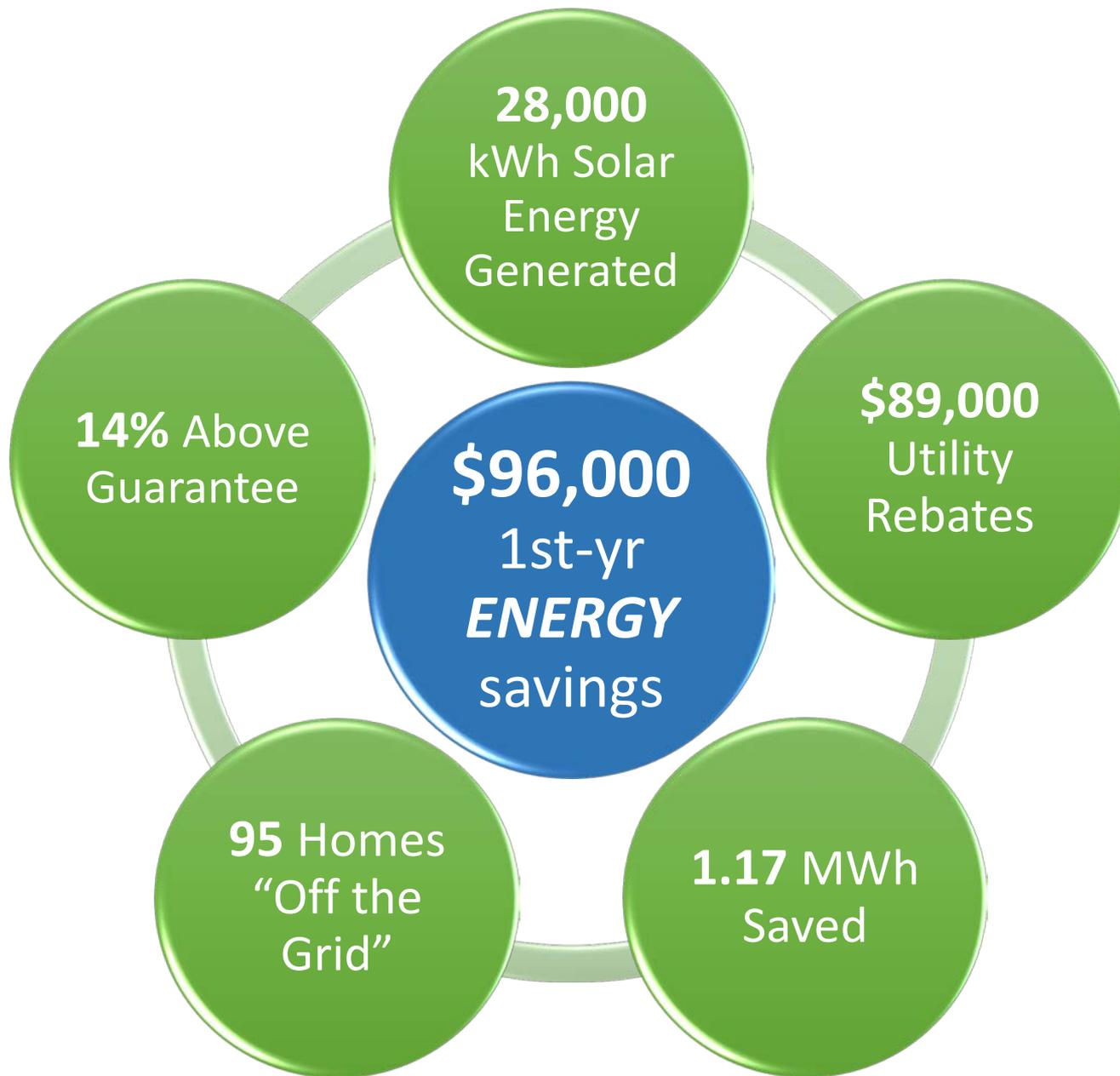
Century Center Project Costs and Financing

- Project total: **\$4,926,784**
 - Paid from savings?
 - Energy savings
 - Maintenance savings
 - Avoided costs
- Financing sources
 - Capital improvement funds
 - Hotel-motel tax funds
 - Energy-specific bond



Year 1 Project Results

| Year One Actual Savings | | |
|---|---------------------------|-----------------------|
| ECM | Guaranteed Energy Savings | Actual Energy Savings |
| ECM 1 - Roofing Replacement | \$1,645 | \$1,694 |
| ECM 2 - Lighting Replacement | \$20,805 | \$23,724 |
| ECM 3 - Lighting II - Upgrades | \$12,803 | \$14,371 |
| ECM 4 - HVAC System Upgrades | \$47,015 | \$53,807 |
| ECM 5 - HVAC Control System Upgrades | Included in ECM 4 | \$0 |
| ECM 6 - Ceiling Tile Replacement and Upgrades | \$0 | \$0 |
| ECM 7 - Install Solar PV | \$1,737 | \$2,303 |
| Total Energy Savings | \$84,004 | \$95,899 |
| Operational Savings | \$6,500 | \$6,500 |
| Capital Cost Avoidance Savings | \$362,936 | \$362,936 |
| Total Savings | \$453,440 | \$465,335 |



Questions?

