Solar Overview Presentation for Ocean View School District

Board Meeting:
October 15, 2019



Agenda – Questions to Answer

- Benefits of Solar
- Analysis Used to Determine Financial Benefit
- How Does a District Achieve Savings from Solar?
- Is Solar Financially Viable for Ocean View School District?



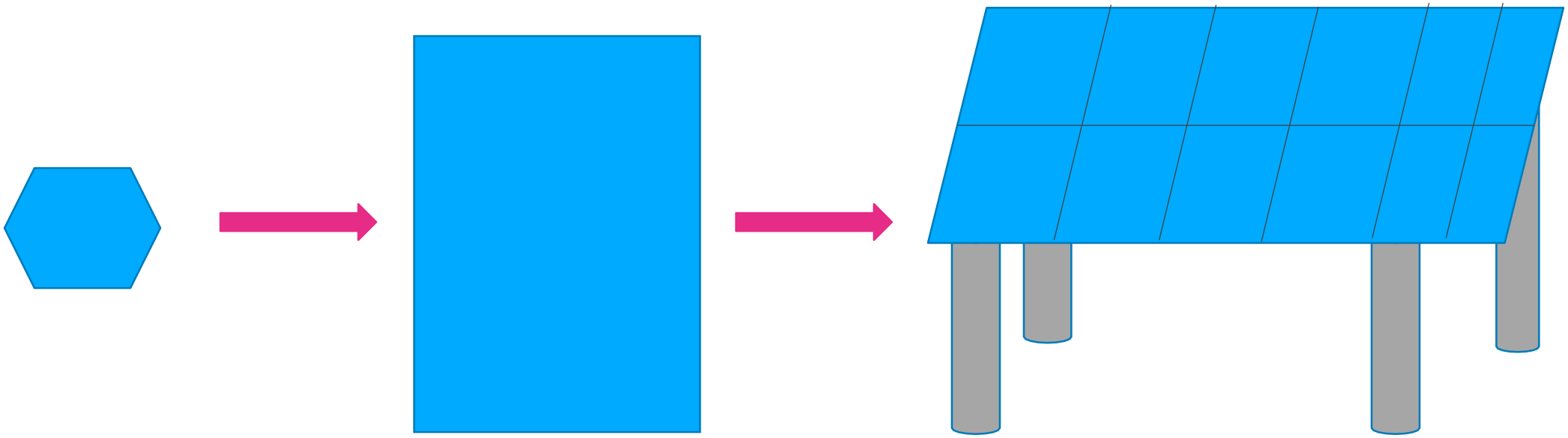
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Photovoltaic (PV) Array Components

Single Solar Cell

Panel or Module

Solar Array



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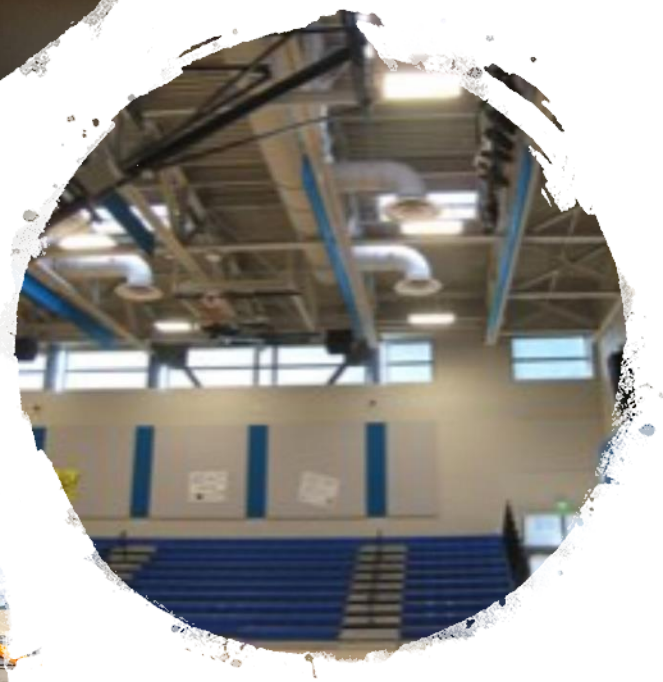
Benefits of Solar PV

- Allows for budget predictability and a hedge against rate escalation
- Provides additional shade for parking, students, teachers, staff and parents
- Shows environmental responsibility and demonstrates leadership
- Allows District to capitalize on attractive Power Purchase Agreement rates, or low interest financing



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The Whole Picture: Mapping It Out

- Start with Actionable Analysis: How are your buildings in terms of operating costs, sustainability, and effectiveness
  - Energy Effective - Usable, Efficient, Sustainable
- Facility conditions assessment (age and performance of equipment and systems)
- Utility use, sustainability practices, resiliency, carbon footprint
- Propose preliminary solutions and provide implementation roadmap
- Evaluate potential sources of funding
- Be prepared to connect facility & operating improvements to education programs and outcomes

Opportunity Assessment Review:
Quantitative & Qualitative-Based Engineering Analysis

Historical Utility Billing Review

On-site energy analysis

Technical Objectives

Additional Components

Can we build a financially feasible program?

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Financial Viability for Ocean View School District

- Develop detailed engineering analysis
- Identify energy efficiency needs
- “Right size” the solar PV system size by site
- Analyze the financial viability of battery storage
- Research all applicable rebates, incentives and grants
- Provide for system maintenance and warranties
- Run financial proforma
  - Account for system degradation
  - Build in financing costs
  - Account for operations and maintenance costs
- **Savings guarantee to the District for the program**
  - Monitor system and provide regular reports
  - Savings shortfalls will be compensated



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Steps to an Actionable Plan



Identify

- Request utility data
- Energy benchmarking
- Site audits
- Utility analysis
- Detailed analysis of potential energy conservation and renewable energy savings



Prioritize

- Identify energy efficiency and needed infrastructure improvements
- Identify locations for solar
- Prioritize list of improvements based on best Return on Investment for District



Quantify

- Establish list of energy conservation measures
- Quantify energy and maintenance savings
- Quantify rebates and incentives



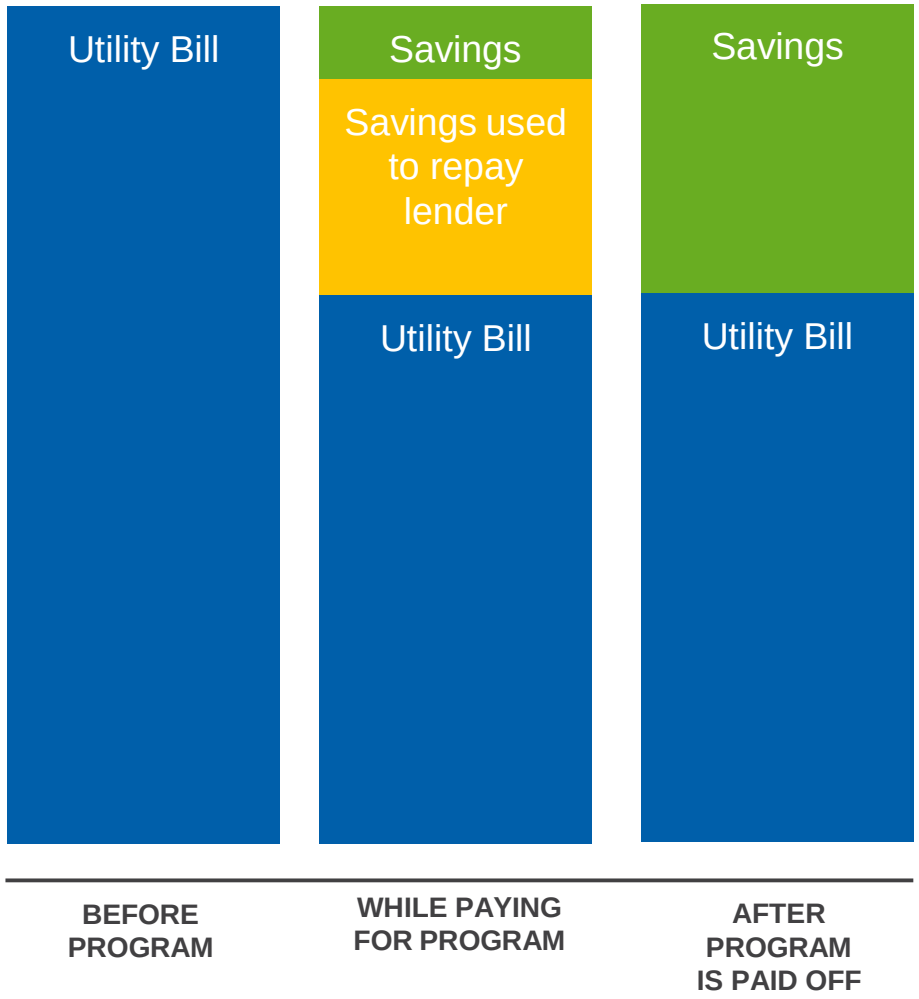
Finalize

- Evaluate options and finalize scope based on District priorities
- Research funding options
- Research rebates and incentives
- Financial RFP for Funding

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Project Financing & Funding

- Energy Savings
- Utility Incentives / Rebates / On Bill Finance
- Capital Contribution / Cash
- Bond Funds
- Tax Exempt Lease Purchase (TELP)
- Certificates of Participation (COP)
- Power Purchase Agreements (PPA)



Snapshot of Solar Savings Summary for Our District Partners

District Partner	Projected Savings	Actual Savings	Projected Vs. Actual
Fountain Valley School District	$1,424,673	$1,552,396	109%
Westminster School District	$961,410	$1,086,333	113%
Huntington Beach City School District	$2,211,593	$2,787,388	126%


Questions?
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