

# Collaborative Solar Procurement at the Local Government Level



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# Challenges & Opportunities

## Barriers to Solar Adoption in SF

- Lack of awareness of financial benefits from going solar
- Significant upfront cost
- Lack of access to financing
- Large multi-tenant building stock with no community solar legislation



## Financing & Cost Savings Options

- Cash purchase or capital loan + local GoSolarSF rebate
  - Typically best long-term ROI
- Solar PPA or lease
  - \$0 down, ~10-20 year contract at cost lower than current bill
- Group purchasing
  - Solar@Work, Solar@School
  - Employee Group Buys
- Commercial PACE
  - EE 10% reduction required
  - Available for non-profits in SF



# Collaborative Procurement & Creative Financing

## Solar@Work

- Pilot project to test new scalable model
- Focus on underserved small/medium commercial sector
- 20% discounted group price through competitive vendor RFP
- Standardized financing options



## Solar@School

- SF public schools pay low electricity rates, receive hydro-based power
- Shifted focus to private schools in SF
  - Pay commercial utility rates
  - Non-profits
- 32% discounted group price achieved through RFP

# Solar@Work Implementation

- **Ideal Participant Criteria**

- Owner occupied
- In business at least 5 years
- 5–20K ft<sup>2</sup> roof area available
- Roof < 10 years old
- > 60% electricity offset by system

- **RFP issued before outreach campaign to secure offer for recruitment**

- Prospective participants wanted to see offer before joining group



- **Outreach Campaign**

- City promotion was critical
- InterSolar press release and presentation
- Direct mail, emails, phone calls to targeted SF properties
- Neighborhood and business community presentations
- Door-to-door canvassing
- Targeted webinars
- Supporting website
  - [www.solaratwork.net](http://www.solaratwork.net)
- Expanded scope to include partners in neighboring AHJs

# Solar@Work Timeline



# Solar@Work Outcomes

- **1.7MW potential at 70 sites**
  - 36 sites screened out
  - 17 proposals presented
  - 5 sites signed contracts for 157kW
  - 9 sites under review for 800kW
- **4 vendors responded to RFQ**
- **Winning proposal:**
  - 20% discounted price achieved, which set new market price point
  - Performance guarantee included
  - O&M included
  - Purchase/Financing Options:
    - Direct purchase
    - PPA or Solar lease
    - Capital loan



## Solar@Work Lessons Learned

- Solar projects with great economics still compete with core business priorities and operational challenges
- Long-term concerns persist in the uncertain economic climate
- Program participants typically have an existing social or sustainability focus
- Vendor sales teams for commercial sector have capacity targets that are difficult to meet with smaller systems



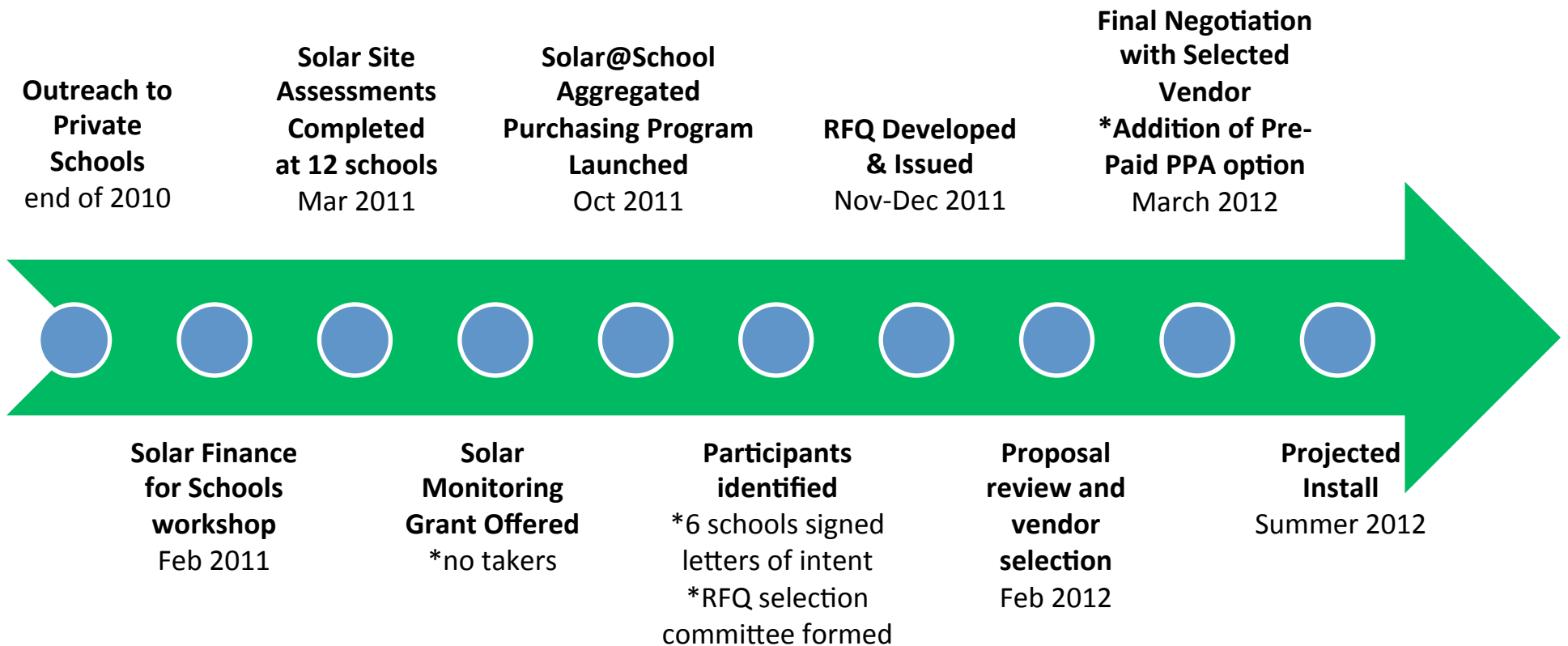
# Solar@School Implementation

- **Participant recruitment before RFP issued**
  - Direct mail, emails, phone calls
  - City hosted workshop for schools
  - City performed site visits and drafted pre-feasibility studies to stimulate interest
- **Optony hired to manage RFP process**
  - Finalized feasibility studies
  - Issued RFP tailored to schools' needs and schedules
  - Evaluated proposals using standardized technical and financial metrics
  - Led interviews and negotiations with vendor finalists





# Solar@SchoolTimeline



# Solar@School Outcomes

- **Broadened awareness of solar potential** and \$0 down financing options among private schools
- **400-500 kW potential at 4 schools**
  - combined project valuation:  
\$1.5 - \$2 million
- **5 vendors responded to RFQ**
- **Winning proposal**
  - 32% installed cost improvement (\$/W) vs CA non-residential avg
  - Performance guarantee
  - Purchase/Financing Options:
    - Direct purchase + city solar grant + commercial PACE
    - 20-year PPA
    - Pre-paid PPA
      - *added in final negotiation*



*Solar School Pride - Athenian School  
221 kW PV install, Danville, CA*

# Feedback from Schools

- **Financial savings, while significant, were great not enough to overcome operational priorities**
  - Vendor did not offer pre-paid PPA option until final negotiation, after interest waned
  - Schools want to hedge against future utility rate increases, but perceived 3.9% PPA escalator and 5.0% utility rate escalator as too risky
- **Schools want to retain RECs**
  - Significantly changed project economics, PPA rates (from better than utility, to same)
- **Roofing costs and timelines**
  - Extending warranty beyond 15 yrs on existing roof too costly
  - Early re-roofing added to upfront capital requirements
- **Schools' planning horizon**
  - Long administrative decision making process
  - Competition with existing capital plans



San Francisco Friends School – Solar@School Lead

# Lessons for Scaling Group Purchases

- **Aggregation yields significant savings**
  - Great opportunity for school districts with multiple properties
- **Engage key stakeholders & identify champion**
  - Facilities managers, CFOs, principals, board members, teachers
- **Plan for longer project timeline**
  - In line with school calendar, planning processes, and capital improvements
- **Show participants the numbers**
  - Upfront costs, cumulative savings, PPA terms (length, savings vs utility, risks)
  - Identify the organizational needs/goals to determine most appropriate purchasing option
- **New creating financing options emerging**
  - Pre-paid PPAs, crowdfunding, commercial PACE and community solar
  - 3rd party models allow public agencies & non-profits to take advantage of tax incentives, benefit from O&M and performance guarantees
- **Retaining green attributes (SRECs)**
  - Important, but can change financial viability of project



**Thank You!**

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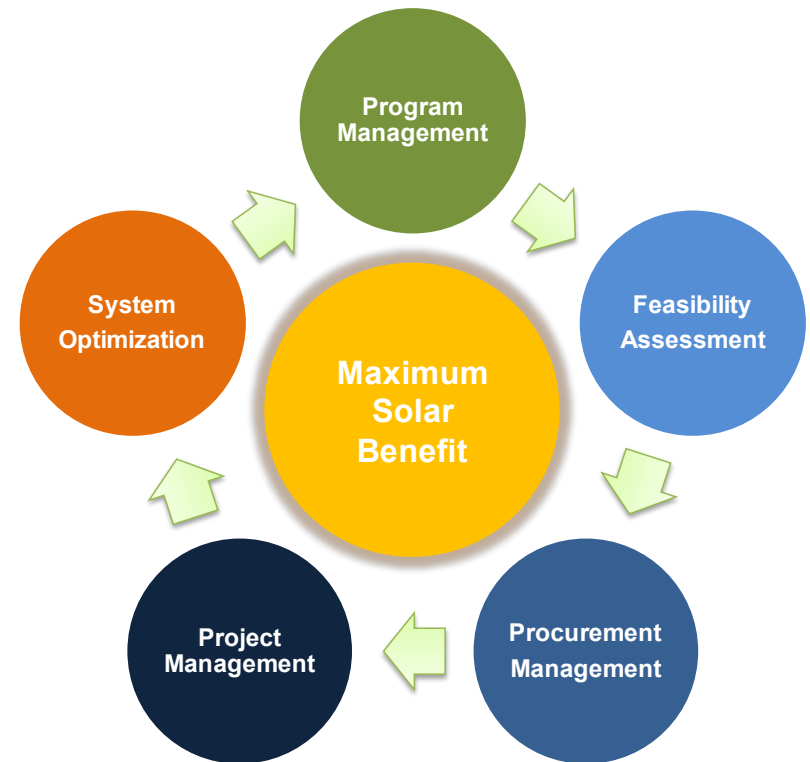
## ABOUT OPTONY INC.

Optony develops and deploys solar best practices across the entire solar project lifecycle for government agencies, schools and commercial organizations.

Optony has been involved in over 300MW of project activity globally.

Working with clients across all phases of solar projects creates deep insight into true performance drivers which is used to reduce costs and improve performance at any stage in the process.

[www.optony.com](http://www.optony.com)



*"Optony's consulting service is a must-have for any organization considering an investment in solar. Based on Optony's comprehensive analysis and recommendations, we now have a low-risk, high-return solar strategy."*