

Using Low-Interest Bond Programs to Fund Solar Projects

March 19, 2015

SUNPOWER™



George K. Baum & Company
INVESTMENT BANKERS SINCE 1928

in partnership with



Presenters

- Neal Skiver, Sr. VP, George K. Baum & Co.
- Nathan Griset, Sales Manager, SunPower Corp.

Special guests, available for Q&A:

- Darrell R. “Buzz” Larsen, Jr, Partner, Chapman & Cutler
- Brent L. Feller, Partner, Chapman & Cutler

Agenda

- Intro to CREBs: What you need to know about subsidized bonds and how to develop self-funding solar projects
- School district case studies: Mt. Diablo USD (CREB) Antioch USD (QZAB), San Ramon (QSCB)
- Q&A

Intro to CREBs

SUNPOWER™



George K. Baum & Company
INVESTMENT BANKERS SINCE 1928

Introduction to CREBs

- **Section 1** Overview of New Clean Renewable Energy Bonds (“New CREBs”)
- **Section 2** New CREBs Application
- **Section 3** New CREBs Solar PV Project Examples
- **Section 3** New CREBs Transaction Structure
- **Section 4** New CREBs CA School District Issues

Overview of New CREBs

- New Clean Renewable Energy Bonds (“*New CREBs*”) are a form of taxable tax credit bonds (authorized under ARRA in 2009), under which either:
 - The bond investor claims a Federal tax credit, or
 - The bond issuer receives a cash subsidy each year from the US Treasury (authorized in 2010 - more popular)
- Either option has the effect of “buying down” the interest rate
- \$800 Million original volume cap allocation for local government project owners (school districts, community colleges, cities, counties, etc.)

Overview of New CREBs

- In 2009, 34 CA school districts received volume cap allocation of New CREBs (404 individual solar locations, \$471 Million)
- Approximately \$103 Million in CA New CREBs were issued by CA school districts*
- Other forms of CA local governments (cities, counties, community college districts, public universities, utilities) issued approximately \$50 Million*
- Nationwide, just over \$200 Million was issued prior to the 3 year expiration in October 2012*

Overview of New CREBs

- In early February, the IRS announced the allocation methodology for the remaining New CREBs - \$597 Million available for local government project owners
- Beginning on March 5th, the IRS will begin accepting applications for New CREBs
- The volume cap allocation will be awarded on a first-come, first-served basis until the allocation is exhausted
- Once an issuer is notified by the IRS that it has received volume cap allocation, the issuer must issue the New CREBs within 180 days or the allocation will revert back to the IRS

Overview of New CREBs

- The tax credit/subsidy rate is subject to change daily and is locked in for the term on the date a binding written agreement is executed between the issuer and the purchaser (bond purchase agreement)
- The term cannot exceed the maximum term identified on the US Treasury website (subject to change on the first of each month).
 - For March 2015, the maximum term is 30 years.
- <https://www.treasurydirect.gov/GA-SL/SLGS/selectQTCDDate.htm>
- Davis-Bacon prevailing wage required for all New CREBs projects

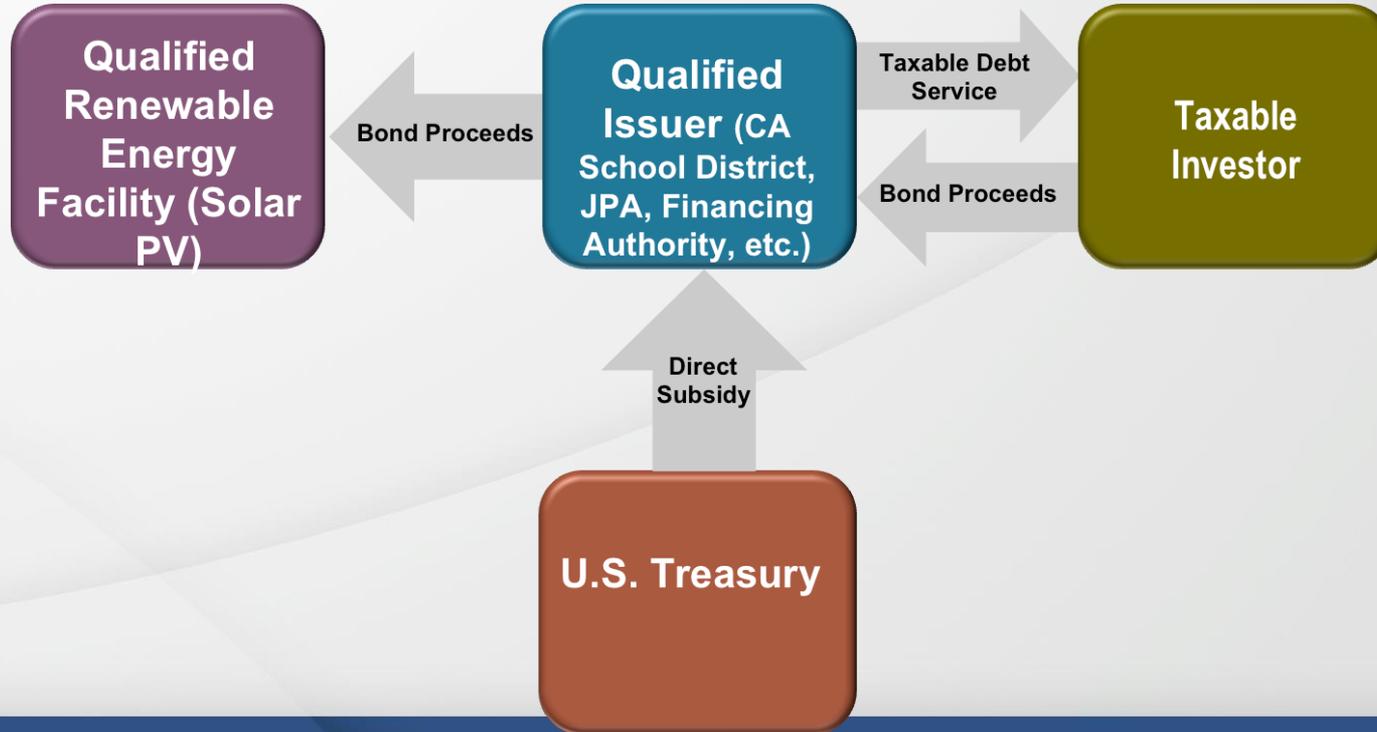
New CREBs Application

- IRS notice 2015-12 includes the form of application for New CREBs:
 - <http://www.irs.gov/pub/irs-drop/n-15-12.pdf>
- Application requirements:
 - A reasonably detailed description of the project (or projects), including:
 - Expected cost components (site prep., equipment, installation, etc.)
 - Electricity generation capacity
 - Project cost estimates
 - Construction commencement and placed in service date
 - Independent engineer's certificate that it is a qualified facility and will generate electricity upon completion
 - Project location(s)
 - Plan for obtaining all approvals required (permitting, etc.)

New CREBs Application

- Application requirements (cont.):
 - Plan of financing, including documentation from an independent third party knowledgeable about the marketing of municipal bonds evidencing that the proposed bond are reasonably expected to be marketed prior to the expiration of the 180 day volume cap allocation
 - Plan of financing must include one or more of the following documents:
 - Bond purchase commitment letter from an investor
 - Credit enhancement commitment letter
 - Letter from an underwriter or a financial advisor to the effect that the sale of the proposed bonds is likely to be completed in time to permit the issuance of the bonds before the expiration
 - Documentation similar to the above
 - Compliance with federal tax laws – bond counsel must be engaged
 - Certification of readiness to issue prior to the 180 day expiration

New CREBs Transaction Structure



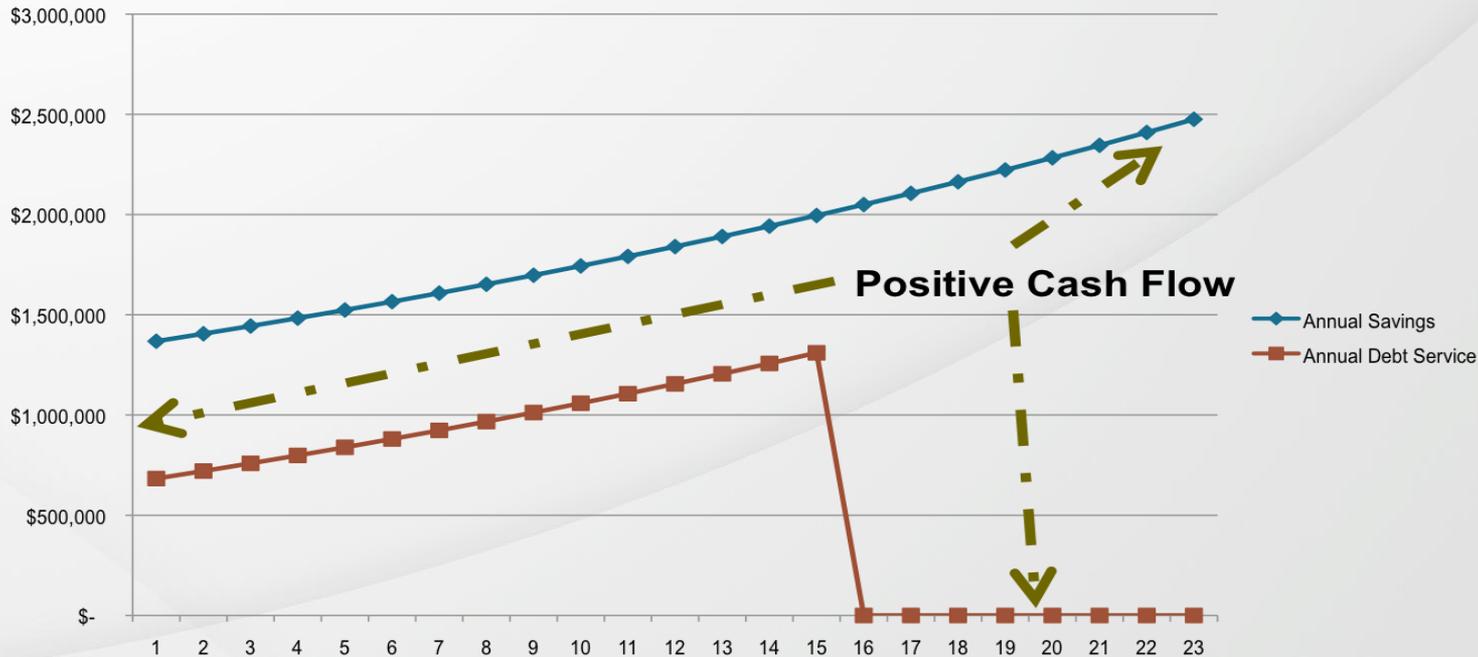
New CREBs Solar PV Application: example #1

- Southern CA Unified School District #1
- Pursuing an \$8 Million energy efficiency program that incorporates a combination of measures, including:
 - HVAC Controls/Replacement (\$2.8 Million)
 - 600kW Solar PV Project (\$2.25 Million)
 - CNG Fueling (\$1.7 Million)
 - Lighting Retrofit (\$550 Thousand)
 - Water Conservation (\$460 Thousand)
- The District was planning to finance the program under a tax-exempt lease purchase agreement (direct placement)
- Sources for repayment will be: (1) energy savings, (2) Prop 39 and (3) utility incentives/rebates

New CREBs Solar PV Application: example #1

- The financing term is estimated to be 15 years at a tax-exempt interest rate of 3.25%
- The goal is to solve for payments that result in level annual positive cash flow during the financing term
- By separating out the solar PV component and financing it using New CREBs, the District will save approximately \$26 Thousand per year, or nearly \$400 Thousand over the 15 year financing term
- The transaction will be structured as a master lease with a New CREBs schedule for the Solar PV and a tax-exempt schedule for the other energy improvements

New CREBs Solar PV Application: example #2



Notes: 1. Bay Area School District – PG&E Service Area; 2. Assumed New CREBs Lease Structure - \$13.1 Million; 3. Approximately 5MW Solar PV System – 15 Locations; 4. Annual Positive Cash Flow during 15 Year Financing Term - \$684 Thousand; 5. 25 Year Cumulative Positive Cash Flow - \$33.4 Million

New CREBs CA School District Issues

- CA school district New CREBs issues between 2009 – 2012*:
 - Anderson Valley USD - \$2.2 Million (GO)
 - Big Pine USD - \$600 Thousand (GO)
 - Calistoga Joint USD - \$1.52 Million (GO)
 - Glendale USD - \$4.3 Million (GO)
 - Lincoln USD - \$6.7 Million (GO)
 - Mt. Diablo USD - \$59.4 Million (GO)
 - San Bruno Park SD - \$5.3 Million (Lease)
 - Santee SD - \$2.2 Million (Lease)
 - Sonoma Valley USD - \$10.6 Million (GO)
 - Twin Hills Union SD - \$1.3 Million (GO)
 - Washington USD - \$7.3 Million (Lease)
 - West Sonoma County Union HSD - \$1.9 Million (GO)

Case Studies

SUNPOWER™



George K. Baum & Company
INVESTMENT BANKERS SINCE 1928

Project Overview

Mount Diablo Unified School District (CREBs/GO Bonds)

- 12.1 Megawatts
- 51 sites
- Systems Installed:
 - Solar Carport Canopy
 - Solar Shade Canopy
 - Rooftop
- Completed: Fall 2012
- Solar Academy Participation
- Project Lead the Way Integration



Mount Diablo USD Solar PV Project

Electric bill reduction: 91%

Annual PG&E Bill	
Before solar	\$3,681,000*
After solar	\$335,000
Estimated savings from solar	\$3,346,000

General Fund Savings	Year 1	30 year
Energy Savings	\$3.3M	\$206.1M
CSI Rebates	\$3.4M	\$16.9M
Total Energy Savings and Rebates	\$6.7M	\$223.1M

Notes: Savings and rebates expressed as nominal values over 30-yr. evaluation period; Key assumptions: 4.47% energy escalation rate; 51 school sites, 11.2 MWp (offsetting ~90% of district's electricity bill); total energy savings and rebates are the gross savings, not reduced by project investment, equal to approx. \$76.9M.

*Annual current energy bill based on PG&E rate tariff as of June 1, 2010; historical energy bill \$3,365,134

Project Overview

Antioch Unified School District - QZABs

- 5.2 Megawatts
- 20 sites
- Systems Installed:
 - Solar Carport Canopy
 - Solar Shade Canopy
 - Rooftop
- Completed: Feb. 2015
- Solar Academy Participation
- Project Lead the Way Integration



Antioch USD Solar PV Project

Projected General Fund Savings

Assumptions		
System Size (kWp)		5,214
CSI Incentive Rate (\$/kWh)		\$0.088
Avg. PG&E Avoided Cost Value of Solar (\$/kWh)		\$0.2050
Annual Rate of PV Degradation		0.25%
Assumed Utility Annual Rate of Cost Escalation		3.00%
QZAB Net Interest Rate		1.30%
Pro Forma Results		Year 1
Total Energy Savings (Avoided Cost & CSI Rebates)		\$2,442,055
Repayment of QZABs, Insurance & O&M Costs		\$1,979,871
Savings to General Fund Net of Repayment		\$462,184
		30 Year
		\$81,628,992
		\$34,803,316
		\$46,825,676

Project Overview

San Ramon Valley Unified School District - QSCBs

- 3.4 Megawatts
- 5 sites
- Systems Installed:
 - Tracking Solar Canopy
 - Rooftop
- Completed: Summer 2011
- Solar Academy Participation
- Project Lead the Way Integration



San Ramon USD Solar PV Project

Results after 11 months of system operation	Expected	Actual	% of Expected
Energy Production (kWh)	6,179,000	6,225,000	101%
Avoided Cost Savings	\$1,279,000	\$1,289,000	101%
CSI Rebate	\$1,544,000	\$1,556,000	101%
Expected General Fund Savings Over 25 Years			
Total Energy Savings		\$52,591,420	
Repayment of QSCBs, O&M Costs		\$28,205,041	
Savings to General Fund Net of Repayment		\$24,386,379	

Notes: Savings and rebates are nominal values over 25-yr. evaluation period; Key assumptions: 3.30% energy escalation rate; 5 school sites, 3.4 MWp (offsetting ~90% of each school's electricity bill)

Q&A

SUNPOWER™



George K. Baum & Company
INVESTMENT BANKERS SINCE 1928

Presenters

- Neal Skiver, Sr. VP, George K. Baum & Co.
- Nathan Griset, Sales Manager, SunPower Corp.
- Darrell R. “Buzz” Larsen, Jr, Partner, Chapman & Cutler
- Brent L. Feller, Partner, Chapman & Cutler

Thank you!

Following today's presentation, you will receive an email with a PDF and link to today's presentation (including speaker contact info) and a short survey.

SUNPOWER™



George K. Baum & Company
INVESTMENT BANKERS SINCE 1928

in partnership with



Speaker Contact Info. & Bios

SUNPOWER™



George K. Baum & Company
INVESTMENT BANKERS SINCE 1928

Contact Information

Neal Skiver

Senior Vice President
George K. Baum & Co.
(303) 391-5470 office
(505) 204-8755 mobile
skiver@gkbaum.com

Nathan Griset

Sales Manager
SunPower Corp.
(714) 787-3805 office
(415) 601-0048 mobile
nathan.griset@sunpower.com

Buzz Larsen, Jr.

Partner
Chapman & Cutler
(312) 845-3473 office
larsen@chapman.com

Brent L. Feller

Partner
Chapman & Cutler
(312) 845-3822 office
feller@chapman.com

George K. Baum & Co.

Renewables & Energy Infrastructure Team



NEAL SKIVER joined George K. Baum & Company ("GKB") as Senior Vice President for GKB's Renewables & Energy Infrastructure team in April 2014. His focus is to provide cost-effective and practical financial solutions for energy efficiency, combined heat and power, distributed generation and renewable energy projects constructed onsite at state & local governments and not-for-profit institutions. These solutions include the following: (1) project finance structures (such as energy services, utility services and power purchase agreements), (2) taxable and tax-exempt capital lease-purchase transactions, (3) municipal enterprise and nonprofit revenue-backed obligations, (4) tax-oriented operating leases, (5) various forms of tax credit obligations (Qualified Energy Conservation Bonds, Clean Renewable Energy Bonds, etc.) and other similar financial instruments.

SunPower Corp.



NATHAN GRISET, Sales Manager, Public and Education, Southern California

Since 1985 SunPower has been leading global solar innovation. SunPower consistently delivers more energy and long-term peace of mind with the highest performing solar power systems available. SunPower is the solar energy choice of more homeowners and businesses around the world.

Chapman & Cutler Team



BUZZ LARSEN is a partner in the Public Finance Department and supervises the activities of its tax-exempt asset origination, placement, and securitization subgroup. Buzz has devoted his career to public finance as investor's counsel, underwriter's counsel, and bond counsel in a virtually nationwide practice, including related federal tax, securities, and state law matters.



BRENT FELLER Brent Feller is a partner in the firm's Tax Department and has been practicing law since 1998. Prior to joining Chapman and Cutler LLP, Brent was employed at Blank Rome LLP in Philadelphia.