

Boulder Valley School District (Colorado)

Organization Size: 55 schools (28,500 students in K-12)

Project Scope: 1.4 MW of solar photovoltaics (PV) on 14 schools

Project Cost: \$0 up front capital costs

Type of Financing: 20-year power purchase agreement (PPA)

Other Sources of Funding: PPA provider took the federal tax credits and utility incentives, lowering the cost for the school district

Key Benefits: Lower energy bills, installation of solar PV without performance risk, ability to benefit from federal tax credits

In 2012, Boulder Valley School District (BVSD) completed a power purchase agreement (PPA) to install 1.4 MW of solar PV that are expected to reduce electricity bills in 14 schools by about 10% over the 20 year life of the agreement. Through the PPA, a third party owns, maintains, and operates renewable energy systems installed on BVSD property, and BVSD pays the third party based on its consumption of electricity.

A Culture of Sustainability

The community that BVSD serves is a national leader in sustainability, and this culture is reflected in the school district's policies and buildings. In a 2006 ballot measure, voters approved \$296.8 million of general obligation

bonds for a wide range of school facilities improvement and construction projects, including energy efficiency and some renewables. Reflecting the community's focus on sustainability, the measure included language specifically directing the district to implement cost-effective, environmentally-friendly and energy efficient design and construction strategies.

In 2008, the school district formalized its environmental commitment, hiring a sustainability coordinator and developing a Sustainability Management System (SMS) to define the vision, goals and strategies for achieving district-wide environmental sustainability. The SMS included specific energy-related goals, including a five year goal to reduce greenhouse gas emissions to 10 percent below the school district's baseline and to install a minimum of 100kW in renewables.

The school district's early experience with small renewables projects from the 2006 bond and other local grant and partnership initiatives was important to BVSD's more ambitious recent projects. BVSD Sustainability Coordinator Ghita Carroll noted that, "We had experience with

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PPAs Can Be Complex, But Provide Significant Benefits

Motivated primarily by its SMS commitments, the school district issued an RFP and signed a 20 year power purchase agreement (PPA) in 2011 for 1.4 MW of solar PV on 14 schools. A PPA is a contract where a third party owns, maintains, and operates renewable energy systems installed on school district property. The school district in turn pays the third party based on its consumption of electricity produced by the system. The PPA structure offered several key benefits to BVSD:



1. **Ability to benefit from federal tax credits.** Because third parties can take advantage of federal incentives not available to tax-exempt school districts, the PPA structure was the lowest-cost financing tool available to the school district. The third party is also responsible for the logistics of accessing federal tax credits and other incentives, reducing the district’s administrative burden.
2. **No system performance risks.** Performance risks are shifted to the third party – BVSD makes payments only as it receives benefits in the form of clean, renewable energy. If the system doesn’t perform, BVSD doesn’t pay.
3. **Lower energy bills.** The rate BVSD pays for power consumed under its PPA is lower than the rate it pays the local utility for energy use across the 14 schools.

While PPAs offer a range of benefits, Carroll cautioned that these deals can be complex and utility rebate incentives and federal tax credits were key to the project’s economic viability. She pointed out though that the PPA structure has become popular, and BVSD was able to leverage the expertise of other local districts that already had used PPAs.

Resources

BVSD’s Sustainability Management System Plan:

<http://www.bvsgd.org/green/Pages/sms.aspx>

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