Comments on Proposition 39: California Clean Energy Jobs Act - 2013 Program Implementation Draft Guidelines (Docket # 13-CCEJA-1)

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Climate Policy Initiative respectfully submits these comments on the Energy Commission's draft guidelines for Proposition 39 program implementation. Proposition 39 has the potential to help California's local education agencies (LEAs) save millions of dollars in energy costs that can be redirected to support educational programs. We appreciate the Energy Commission staff's hard work in getting this important program up and running.

Our comments suggest ways to more effectively reach LEAs and enable more effective energy-saving projects. These comments are based on our research on school districts' current resources and needs relating to planning and funding energy-saving facility improvements.[2]

We note two overarching recommendations for the guidelines:

1. The guidelines should encourage LEAs to plan energy-saving projects as a comprehensive package of multiple measures covering the full five years of Proposition 39 funding. The Energy Commission could accomplish this by allowing more LEAs to submit multi-year expenditure plans, and by modifying the guidelines to frame project planning and identification as a holistic decision.

- A comprehensive planning process — one that packages multiple efficiency measures together and accounts for the full five years of funding — can help LEAs maximize energy-saving benefits with their Proposition 39 funds. This approach allows LEAs to package longer-payback measures with those with shorter paybacks so that a suite of measures becomes cost-effective. If LEAs instead approach the planning process by identifying individual energy efficiency measures that fit within their annual Proposition 39 grants, they could be limited to quick-payback projects and forego larger, more comprehensive projects that will save them more energy and money.

- A comprehensive project planning process can also help reduce planning and administrative costs. Planning and implementing one large project is generally more time-efficient and less expensive than multiple small ones. Many smaller school districts undertake facility

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[2] Our findings are discussed in the report *Targeting Proposition 39 to Help California's Schools Save Energy and Money* (May 2013), available at http://clmtp.lc/proposition39.

improvements only infrequently, and their staff capacity for facility planning — including engaging with the Proposition 39 process — is very limited.

- **Recommendation: The Energy Commission should allow more LEAs to submit five-year plans.** We are glad to see that the smallest LEAs will be allowed to submit a single, multi-year expenditure plan, which will help them plan more effectively. However, this option is only available to LEAs with annual allocations under $50,000, which covers only 231 LEAs, according to the Proposition 39 allocations released by the California Department of Education. An additional 1,174 LEAs, with an average ADA of 410 students, have annual allocations between $50,000 and $100,000. The Energy Commission should consider allowing at least these LEAs to submit multi-year expenditure plans as well. A significant energy retrofit to a school building will likely be much larger than $100,000, even at a small LEA.

- **Recommendation: The section of the guidelines dealing with project identification and sequencing should be amended so that it begins with a discussion of how, and why, to approach planning as a multi-year, multi-measure project plan.** As currently written, this section seems to instruct LEAs to approach project selection a single measure at a time. Even if an LEA is not eligible to submit a five-year expenditure plan to the Energy Commission, it would likely benefit from taking the same comprehensive approach in its internal planning process. The guidelines should make clear that this is allowed, and even encouraged.

2. Combining Proposition 39 grants with other funding sources can enable LEAs to undertake more comprehensive projects and amplify Proposition 39's energy-saving benefits. The Energy Commission should help LEAs engage with other funding sources to supplement Proposition 39 grants — by expanding the discussion of other funding sources in the guidelines, expanding the technical assistance provided to LEAs to include assistance related to supplemental funding, and allowing LEAs to use a portion of their planning grants to seek supplemental funding.

- Many school districts are already using a wide range of other funding sources to finance energy-saving facility improvements, including local bond revenues, state grants through the School Facility Program, low-interest loans through the ECAA fund, private lease-purchase agreements, utility rebates and financing programs, and pooled financing arrangements such as those organized by the Southern California Renewable Energy Center and the California School Boards Association. (See Appendix A for a more complete list of other funding sources that could be coupled with Proposition 39 funds to amplify energy-saving benefits to LEAs.)

- Supplementing Proposition 39 grants with other funding sources can greatly expand the possibilities for LEAs seeking to upgrade their facilities and save energy, allowing them to undertake larger projects with greater energy and cost-saving benefits. Appendix B gives an example of how engaging multiple funding sources can benefit the LEA by making more comprehensive projects possible.

- Encouraging engagement with other funding sources can also help the Energy Commission ensure that Proposition 39 funding has the greatest possible impact and does not simply displace other available support.

- **Recommendation: The discussion of "leverage" in the guidelines should include a more expansive list of possible LEA funding sources, as well as information on how LEAs can use Proposition 39 grants with each funding source.** In addition, the technical assistance provided under Proposition 39 should include providing LEAs with information about supplemental funding sources, and the Energy Commission should consider allowing LEAs to use a portion of their Proposition 39 planning grants to seek advice on funding options and pursue supplemental funding sources. Business and facilities managers at LEAs are often not well-acquainted with all available financing options, and using Proposition 39 money to facilitate combined funding arrangements would likely achieve very high energy savings per dollar.

- **Recommendation: As part of the project approval process, CEC should consider requiring that LEAs pursue utility rebates if they are available for the measures included in Proposition 39 projects.** Utilities offer rebates for many of the measures LEAs might consider for Proposition 39 projects. However, in our research, we found that school districts' relationships with their utilities vary widely, and they may not be aware of all available utility rebates. Technical assistance could help LEAs check for available utility rebates, if necessary.

<u>We also note two technical issues in the guidelines:</u>

3. During the data collection and benchmarking process, LEAs should record the typical hours of operation of each facility (hours per day, days per year), in addition to building square footage and energy use.

- A school facility may use more energy than average because it is inefficient, or because it is open for evening, weekend, or summer programs while other buildings are not. The benchmarking process as described in the draft guidelines (Exhibit D of the appendix in the guidelines) would not allow LEAs to distinguish between these two situations. Collecting data on typical hours of operation will give LEAs more useful information during the benchmarking process.

- Collecting baseline data on building usage patterns will also allow for more accurate evaluation of program impact. If a building's usage patterns change in the next few years, LEAs will want to account for that when evaluating the impact of a Proposition 39 project. For example, if a school receives an energy-saving retrofit but also expands its summer programs at the same time, its energy use could increase, even if energy efficiency has improved. The LEA and the Energy Commission should adjust for the additional hours of use when evaluating the impact of the retrofit project.

4. The discount rate used in the SIR calculation should be lowered from 5.1% to approximately 3.5-4%, to more accurately reflect LEAs' cost of capital.

- The guidelines indicate that the SIR calculation uses a discount rate of 5.1%, based on a value used in the development of Title 24 building energy efficiency standards. This value was developed to apply to primarily privately owned buildings; it is too high to apply to school districts and other governmental bodies. A more appropriate discount rate for the Proposition 39 SIR calculation would be in the range of 3.5-4%, which reflects LEAs' actual cost of borrowing.
    - Over the last few years, the average interest rate for school facility bonds was 3.7%.[3] In our research, we found that private lease-purchase agreements are currently available to most LEAs at similar interest rates — from approximately 2.25% to 5%, with few over 4%.
- This adjustment would make only a small difference in the SIR calculation, but it more accurately reflects LEAs' cost of capital and could enable some LEAs to take on more comprehensive and ambitious energy-saving projects.

Appendices:

A) Additional Sources of Funding for Energy-Saving Projects
B) Benefits of Leveraging Proposition 39 Grants with Other Funds

[3] Based on analysis of debt issuance data maintained by the California Debt and Investment Advisory Commission, available at http://www.treasurer.ca.gov/cdiac/debtdata/excel.asp. Includes K-12 school facility bonds issued between January 1, 2011, and September 30, 2013.

Appendix A: Additional Sources of Funding for Energy-Saving Projects

This table lists many of the additional funding sources — both public and private — that may be available to LEAs to supplement their Proposition 39 grants. This may not be a complete list, but gives a sense of the range of funding sources available. This list was developed based on our research on how school districts have funded energy-saving projects in the past; the options may be different for LEAs other than school districts.

	FUNDING SOURCE	TYPE	DESCRIPTION	LIMITS TO AVAILABILITY
GRANTS	State modernization grants[4]	State	60% matching grant to support renovations of school buildings at least 25 years old or portable classrooms at least 20 years old More generous grant may be available for districts that demonstrate financial hardship[5]	Eligibility is restricted to existing buildings over 25 years old, or portable classrooms over 20 years old, that have not yet had renovations funded through the modernization program Funding is temporarily limited, pending a new state bond measure
	Utility rebates, grants, and direct-install programs	Utility	Available for a wide range of efficiency measures; frequently used to fully or partially fund lighting and HVAC projects	Availability varies by utility and product
	High Performance Incentive Grant[6]	State	Available for new construction or major modernization projects that meet a set of standards for "high-performance" buildings, including energy efficiency and indoor air quality Modernizations can receive $250,000 or more, depending on the specifics of the project	Only available for projects that are also receiving new construction or modernization funding from the state — not available as a standalone grant
	Developer fees	Private	Fees associated with new home construction, directed to the school district	Availability depends on the state of the local housing market Funds must be directed toward expenses related to growing enrollment — typically not used for retrofits

[4] http://www.dgs.ca.gov/opsc/Programs/modernizationprogram.aspx
[5] http://www.dgs.ca.gov/opsc/Programs/financialhardshipprogram.aspx
[6] http://www.dgs.ca.gov/opsc/Programs/highperformanceincentivegrantprogram.aspx

	Other grants, e.g., from foundations or not-for-profit organizations	Private	Some LEAs have used grants from local organizations to fund energy-saving projects	LEAs must apply individually for funding; programs may restrict eligible LEAs or types of projects
BONDS	Local bonds	Local	Typically include many other facility improvements beyond energy-saving measures Average interest rate for K-12 facility bonds, 2011-2013: 3.7%	Availability limited by local property values, voter sentiment, and competing facility needs Bond initiatives take time and resources to put together Some bonds (e.g., Capital Appreciation Bonds) are more expensive
	Federally subsidized bonds, such as Qualified Energy Conservation Bonds[7]	Federal	Bonds subsidized by the U.S. Treasury Department	Limited quantity allocated to each state Requires a significant investment of time and staff resources to engage with program and issue bonds
LOANS AND LEASES	ECAA low-interest loan[8]	State	0% interest rate loan, capped at $3 million; up to 20-year term Loan paid back through energy savings Available for energy efficiency and renewable energy projects Some flexibility in scheduling payments Underwriting criteria based on projected energy savings; these loans may be available to LEAs that do not meet underwriting criteria for private loans	LEA must own the equipment, making it difficult to combine ECAA loan with lease-purchase agreement or solar power purchase agreement School districts in negative or qualified certification status must receive approval from county office of education Available funds are limited
	On-bill financing[9]	Utility	Loans at 1% interest, paid through utility bill Loan amount capped at 10 times the first year's savings, up	Only available to LEAs that purchase power from the large investor-owned utilities (PG&E, SCE, SDG&E)

[7] http://www1.eere.energy.gov/wip/solutioncenter/qecb.html
[8] http://www.energy.ca.gov/efficiency/financing/. This information may not be fully updated to reflect changes to the program with additional Proposition 39 funding.
[9] PG&E, http://www.pge.com/en/mybusiness/save/rebates/onbill/index.page; SCE, http://clmtp.lc/19LAXlx; SDG&E, http://www.sdge.com/bill-financing

			to a $250,000 per meter or $1 million total cap	School districts in negative or qualified certification status must receive approval from county office of education Program offerings may change in the next few years, as utilities pursue new pilot programs for energy efficiency financing
	Municipal lease (lease-purchase agreement)	Private	Currently available at rates of 2.25-5% for a 15-year term; interest is tax-exempt Allow LEAs to finance short-payback projects with zero or positive impact to the district's general fund Can include both energy-saving measures and non-energy measures, but the project as a whole must still pay for itself Some flexibility in scheduling payments	May not be available if a district's enrollment is declining, if it is facing general fund imbalances, or if it has too much outstanding debt already Future interest rates depend on overall economic conditions
	Pooled financing vehicles	Private	Lease-purchase agreement through an intermediary organization Examples: Southern California Regional Energy Center Master Lease Initiative[10], California School Boards Association financing programs[11]	Underwriting criteria vary by program; may not be available to all LEAs
OTHER	Solar power purchase agreement	Private	Lease arrangement allows LEA to pay for solar power over time, rather than investing up front in purchasing the system	For renewable energy generation only
	District general fund/operating budget	Local	Some LEAs have used general funds to pay for small-scale, short-payback energy-saving projects	Many competing demands on general funds

[10] http://screc.energycoalition.org/financing
[11] http://www.csba.org/ProductsAndServices/Financing.aspx

Appendix B: Benefits of Leveraging Proposition 39 Grants with Other Funds

To explore the benefit to LEAs of combining Proposition 39 grants with other funding sources, we calculated costs and benefits for typical school energy-saving projects under a few different funding scenarios. The below examples were selected for illustrative purposes and represent just two of the many possible ways LEAs could combine energy-saving measures and funding sources. They represent an LEA with a $50,000 annual Proposition 39 allocation choosing between two approaches:

- Project A: A lighting-only project, paid for through the Proposition 39 grant and utility rebates
- Project B: A project combining a major HVAC retrofit with lighting and other measures, paid for by a combination of Proposition 39 funds, utility rebates, and an ECAA loan

A comparison of these projects shows:

- Despite a lower savings-to-investment ratio, the more comprehensive project (Project B) generates nearly twice as much value to the LEA as Project A over the lifetime of the project, even without accounting for maintenance savings.
- Project B returns greater budget savings to the LEA in every year of the project.
- In the first year after the project is completed, the budget savings from Project B are four times as large as the savings from Project A, because the loan allows a much larger portion of Project B to be installed immediately.

These results would differ depending on the types of projects chosen, type of loan used, and other factors. In general, using ECAA loans, lease-purchase agreements, or other funding sources to enable more comprehensive projects generates greater energy and cost savings for LEAs than projects supported by a Proposition 39 grant alone.

Project A: Lighting-only project, funded with $50,000 annual Proposition 39 grant and utility rebates

Project cost	$312,500
Rebates (20% of cost)	$62,500
Proposition 39 grant	$250,000
Measure lifetime (years)	10
Simple payback (years)	7.5

Budget Impact of Project A:

Net present value
$346,660

First-year budget savings
$8,333

Savings-to-Investment Ratio (per draft guidelines):
1.44

Year	% of project in place	Energy cost savings for LEA	Discounted present value
1	20%	$8,333	$8,333
2	40%	$17,017	$16,191
3	60%	$26,061	$23,593
4	80%	$35,478	$30,560
5	100%	$45,278	$37,109
6	100%	$46,229	$36,050
7	100%	$47,200	$35,021
8	100%	$48,191	$34,021
9	100%	$49,203	$33,050
10	100%	$50,237	$32,107
11	80%	$41,033	$24,952
12	60%	$31,421	$18,180
13	40%	$21,387	$11,774
14	20%	$10,918	$5,719

Project B: Project including major HVAC retrofit and other efficiency measures, funded with $50,000 annual Proposition 39 grant, utility rebates, and ECAA 0% interest loan

Project cost	$1,400,000
Rebates (20% of cost)	$280,000
Proposition 39 grant	$250,000
Loan (remainder of project cost)	$870,000
Loan term (years)	14
Interest rate	0%
Annual payment	$62,143
Measure lifetime (years)	14
Simple payback (years)	12

Budget Impact of Project B:

Net present value
$669,316

First-year budget savings
$33,690

Savings-to-Investment Ratio (per draft guidelines):
1.22

Year	% of project in place	Energy cost savings	Loan repayment	Net impact to LEA budget	Discounted present value
1	82%	$95,833	($62,143)	$33,690	$33,690
2	87%	$103,164	($62,143)	$41,021	$39,030
3	91%	$110,759	($62,143)	$48,616	$44,013
4	96%	$118,629	($62,143)	$56,486	$48,655
5	100%	$126,780	($62,143)	$64,637	$52,975
6	100%	$129,442	($62,143)	$67,299	$52,480
7	100%	$132,160	($62,143)	$70,018	$51,951
8	100%	$134,936	($62,143)	$72,793	$51,389
9	100%	$137,769	($62,143)	$75,627	$50,799
10	100%	$140,663	($62,143)	$78,520	$50,183
11	100%	$143,616	($62,143)	$81,474	$49,544
12	100%	$146,632	($62,143)	$84,490	$48,885
13	100%	$149,712	($62,143)	$87,569	$48,208
14	100%	$152,856	($62,143)	$90,713	$47,515

Notes on data sources and assumptions:

- Most of the project data in this model are based on summary data on average ESCO projects in K-12 schools, gathered by Lawrence Berkeley National Laboratory under contract with the National Association of Energy Service Companies.[12] Project A was scaled down to fit within the assumed Proposition 39 allocation.
- Measure lifetime data were taken from the California Database for Energy Efficient Resources.
- We did not include maintenance savings in this model, only energy cost savings.
- We used values specified in the Proposition 39 draft guidelines for the discount rate (5.1%) and rate of energy cost escalation (2.1%). The Savings-to-Investment Ratio was calculated using the formula in the draft guidelines, including a 3% adder for non-energy benefits.
- For both projects, we assume utility rebates cover 20% of the total project cost, based on average project data from the LBNL ESCO database.
- We assume Project A is implemented in stages over 5 years, corresponding to the LEA's annual Proposition 39 allocation. We assume most of Project B is implemented in the first year, using the entire ECAA loan and the first year's Proposition 39 grant. The remainder of the Proposition 39 grant follows in years 2-5. Utility rebates are allocated in proportion to the other spending. We do not account for any potential increase in project costs due to this staged approach.
- We assume the term of the ECAA loan is the same as the useful lifetime of the equipment purchased, which in this example is 14 years.

[12] Data source: Lawrence Berkeley National Laboratory (LBNL). 2013. Data from the LBNL/ National Association of Energy Service Companies database of projects. Personal communication with Peter Larsen, April 2013.