2009 CAMPUS LIGHTING RETROFIT FORUM

Finance, Investment and Legal

Attributes of a Renewable Energy Program

Ruben Rojas, Deputy Director, LACCD Bond Program
The Los Angeles Community College District serves over one hundred cities and communities within a geographic area covering eight hundred and eighty two square miles.

Nine colleges within the district educate more than 220,000 students a year.

Two satellite campuses are in the planning phase.

The colleges range in size from twenty-two to over four hundred and fifty acres.
The Objective: (A Threefold Quest for Sustainability)

1. Climate Neutrality and Energy Independence
The District has embarked on a program to replace all existing fossil fuel based equipment with an amalgam of renewable resources including solar, wind, biomass, geothermal, hydrogen fueled, and emerging energy storage technologies.

2. Flexibility
We are looking for sustainability in our Renewable Energy Program to take us through the next half century and the technology we embrace today must be able to adapt to future technologies as they evolve.

3. Energy Conservation
Providing a healthful and safe environment for students, faculty and staff with minimum impact on the environment will be the true measure of all our sustainability, energy efficiency and conservation efforts on all our campuses.
Components of the LACCD Energy Program

- Central Plants at all nine colleges
- Demand Side Management Program
  - Retro Fit of existing lighting components is a key aspect of load reduction
- Renewable Energy
  - Off-set load requirements via the installation of RE technologies such as PV, Wind, Geo-thermal, Solar-thermal, and bio mass
- Curriculum Development
  - Work force development
  - Certificate courses in alignment with unions
Subject Matter of Discussion: Financing a Renewable Energy Program with No Out of Pocket Expense

• How is LACCD accomplishing its goal?
  – Capitalization of Federal and State subsidies despite being a tax exempt entity
  – Utilization of Tried and True Contractual Structures
    • Solar Energy Service Agreement (District/EPC)
    • Site Lease Agreement (District/EPC)
    • Installation Agreement (District/EPC)
    • Master Purchase and Sales Agreement (EPC/SPE)
    • O&M Agreement (EPC/SPE)
  – Creation of Financial Syndication with Tax Equity Appetite
    • Global/National Financial Institutions
    • Insurance Sector
Contractual Structure

- **Solar Energy Service Agreement**
  - LACCD will not make any upfront payments for construction; No out of pocket expense for the District; capital or construction cost
  - LACCD only pays for power, not construction of generating facilities
  - Construction costs will be paid via construction loan which is made to EPC provider by tax investors
  - After commercial operation, LACCD will purchase all generated power; proceeds from sales pay back construction costs over time
- **Additional Benefits of SESA**
  - Performance guarantee for the life of the equipment (25 yrs)
  - Annual “true-ups”; power produced vs. power utilized
  - Pre-negotiated agreements accepted by the largest finance entities in the country
- **Site Lease Agreement**
  - District is host to power provider
- **Installation Agreement (Engineering, Procurement, and Construction Agreement)**
  - Open book relationship
  - Bulk Procurement negotiations
- **Master Purchase and Sales Agreement**
  - Assignments
- **Operations and Maintenance Agreement**
  - O & M Agreements for functional life of system despite early buy-out option
3rd Party Financing Structure

- Install Solar Operating Systems with no out of pocket expense from the District

- 3rd party financing is necessary in order for the District to take full advantage of available tax credits which lower the overall cost of the system

- Golden Rule of Revenue Enhancement
  - Cost Savings and Cost avoidance is as valuable as revenue
  - PPA enables the District to lock in the price of power for a set term and thus avoid the increased cost of power, inflations costs and the like
Banking Partners

• The District facilitated a competitive process to determine the most qualified partners and the most advantageous finance structure for its renewable energy projects.

• Finance committee developed a short list of entities based on the evaluation criteria set forth by the District.
Banking Partners

LACCD

Quarter Back

Equity Appetite

Equity Appetite

Equity Appetite

Insurance Sector
Cost of Renewable Energy Program

• The current costs of construction and materials are dropping as worldwide production of photovoltaic panels and cells increases.
  – In 2008 the cost of PV panels ranged from $4.25 to $5.00 per watt.
  – Currently, the price of PV panels is approximately $2.30 to $2.70 per watt.
2009 CAMPUS LIGHTING RETROFIT FORUM

Proposed District Wide PV Systems

Installation Cost $296,120,500

Less:

- Investment Tax Credit $88,836,150
- Accelerated Depreciation Tax Benefit 77,048,805
- Bonus Depreciation 3,426,002
- New Market Tax Credit (NMTC) 29,612,050
- SPIP - PBI (LADWP) 9,166,848
- CSI - PBI (SCE) 1,577,508
- Renewable Energy Credit 9,954,045

Net Cost $76,499,092
Minimal Risks
Maximum Benefits

• Fixed energy cost for life of project
  – Avoidance of inevitable power cost increases

• Zero energy costs after 6yr buy-out
  – Stand by charges currently being negotiated

• ‘True-up” guarantees performance of system

• Life Cycle maintenance of assets
### Risk Allocation Matrix

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<th>LA/CCD Provider</th>
<th>Developer</th>
<th>O&amp;M Provider</th>
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* Not applicable for projects on which LA/CCD takes RECs.

Manufacturer warranties pass through to Developer.

Payment in Reserve, and HA REO cross-collateralization (inside 
Lessee).

CFO responsible for FIU application process and that it has been done correctly and timely.

Credit, rated BCC Cosignatory preferred. Payment in Reserve, and HA REO cross-collateralization (inside 
Lessee).

Purchaser's casualty and umbrella insurance policy.

Lease and/or risk of loss for warranty applicable clause of defeasible under LA/CCD policies.

Payment in Reserve, and HA REO cross-collateralization (inside Lessee) (tie to Generating Facility 
remain with Lessee).
How this model can be replicated at your Institution

• Credit Rating of Institution
  – Investment Grade Rating
  – Education is as sound investment sector

• Strategic Partnerships
  – EPC contractor with solid balance sheet

• Strength of Performance Guarantees

• Size of Project

• Securing of tax equity investment
  – Competition is fierce due to fiscal climate

• Bulk procurement
  – Leverage
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