

The Role of Finance in Commercial Solar Projects

**presented by
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Who is CarbonFree Technology?

- CFT is a renewable energy project developer
- CFT delivers turnkey solar projects
 - CFT performs technical, financial and legal due diligence
 - CFT puts the team together
 - CFT arranges project financing
 - CFT represents investors who will build, own and operate commercial solar installations for 15-20 years



Why is Financing important for Solar?

- Solar is about up-front capital cost
- Very small Operating & Maintenance cost
- 25+ year life expectancy
- Compare this to traditional power sources (ie. coal, gas, nuclear) with long term uncertainty in fuel and labor costs



What are the options for financing solar?

- Self funding
- Clean Renewable Energy Bonds (CREBs)
- Leasing
- Solar Services Agreements (aka PPAs)
- ???



What are the options for financing solar?

- Self funding
 - capital intensive
 - need appetite for tax incentives
 - you assume procurement and performance related risks (RFP, project management, maintenance, etc)



What are the options for financing solar?

- Clean Renewable Energy Bonds (CREBs)
 - allows you to borrow “cheap money”
 - still need outside assistance to issue bonds
 - you assume procurement and performance related risks



What are the options for financing solar?

- Leasing
 - Fixed payments regardless of system performance
 - Non-tax payers unable to take advantage of tax incentives



What are the options for financing solar?

- Solar Services Agreements (aka PPAs)
 - No need to raise money (no up front cost)
 - No need to identify system integrator/ install system
 - No need to Operate & Maintain PV system
 - Part of your energy costs have been fixed (made predictable) over the next 25 years
 - Currently the model used to enable ~70% of all commercial solar in the U.S.



Takeaways

- You can install a solar PV system with no impact on your construction/ capital budget
- Under certain circumstances, the risks associated with procurement, construction, maintenance performance are all borne by the project owner, NOT the building owner.
- The solar component of your electric bill will be predictable over the next 25+ years
- Solar can help you get those LEED points without the added construction costs!





ASU Solar Projects Developed by CarbonFree:



- 1) Apache Blvd Parking Structure (864kW)
- 2) Stadium Parking Structure (731kW)
- 3) Lattie Coor Hall(108kW)



Q&A

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