



Options for Financing Industrial Energy Efficiency Projects

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Outlook for North American Manufacturing—What Does it Take to Encourage Investment?



Mostly positive outlook:

- U.S. recovering faster than Europe & Japan
- Manufacturing is leading the recovery—33rd consecutive month (ISM as of April)
- Demand driven, in part, by increased exports

Some clouds on the horizon:

- Softening of U.S. & global economy
- European banking crisis
- Political challenges in U.S. & Europe—shift to austerity & continued political gridlock

Reshoring

“Sometime around 2015, manufacturers will be indifferent between locating in America or China for production for consumption in America,” Hal Sirkin of **BCG**



The Economist

BCG Reports that :

- Factory worker pay in China soared 69% between 2005 and 2010
- Labor is a small and diminishing fraction of total costs
- Complex supply chains turn out too risky & expensive
- Reshoring could cut U.S. merchandise trade deficit with rest of world ~\$100bn by 2020

Status of Industrial Access to Capital



- U.S. manufacturing entering a period of expanding capital investment
- Money center bank lending constrained
- Community banks lending ability constrained against larger projects due to size, complexity and reserves
 - *BancAlliance* – lending “club” that allows member banks to turn to the alliance for fast-growing customers who require loans too large or too complex for the community bank to underwrite on its own

Strategies for Financing Manufacturing Energy Efficiency Projects

- Operating Funds
- Company Cash
- Conventional Bank Financing
- Utility/Energy Efficiency Programs
- Government Lending Programs
- Public Bond Financing
- Third-Party Financing



Federal & State Government Lending Programs

- Small Business Administration (SBA)
- Small Business Innovation Research (SBIR/STTR)
- USDA Rural Small Business Lending
- State Energy Offices
- Economic Development Agencies



USDA Rural Small Business Lending

- Business and Industry Guaranteed Loan (B&I) Program
- Intermediary Relending Program (IRP)
- Biorefinery Assistance Program/Biorefinery Assistance Loan Guarantees (Section 9003)
- Rural Energy for America Program Guaranteed Loan Program (REAP Loans—Section 9007)
- Rural Economic Development Loan and Grant (REDLG)

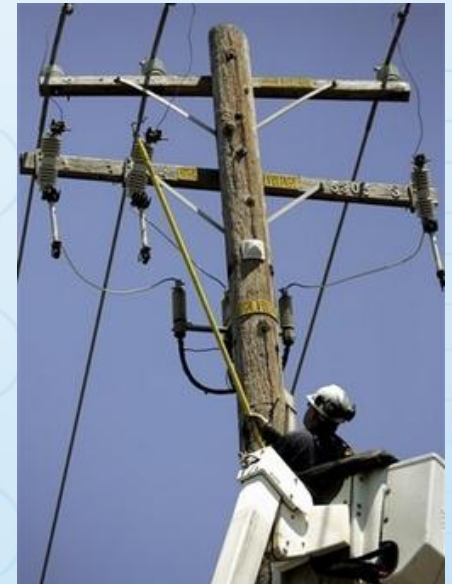
Public Bond Financing

- Federal Guaranteed Community Development Financial Institution (CDFI) Loans
- Development Bond Funding, including:
 - Governmental & Qualified Private Activity Bonds
 - Industrial Development Bonds
 - Small Issue and 501(c)(3) Bonds
 - Clean Renewable Energy Bonds
 - Build America Bonds
 - Recovery Zone Bonds



Utility/Energy Efficiency Programs

- Incentives and rebates
- Revolving loan funds
- Conventional loans
- On-bill financing



Third-Party Financing

- Private equity/venture capital (VC)
- Lease-purchase agreements
- Performance contracting (ESCO, PPA, PC or ESPC)
- Service outsourcing (e.g., compressed air or steam system)

Limitations of Financing Strategies

All financing strategies have different strengths & limitations, which can change over time with the firm, economy & market.

- Many have higher transaction costs than conventional financing
- Increased uncertainty in eligibility & future availability of lending program
- Some only work for certain size projects
- Some sources have size & scope limitations (Eg., REDLG loans are constrained & can only apply for them every few years)

Company Considerations in Selecting Path

- Firm's financial situation—current degree of leverage
- Strategic considerations—M&A opportunities or threats
- Type of company
 - Publicly -Traded vs. Private Company—Sarbanes Oxley/FASB/IASB requirements

Conclusions

- Numerous financing options
- Many firms are unaware of all the options available
- Different options come with advantages & limitations
- No one strategy will work for all firms and all projects



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