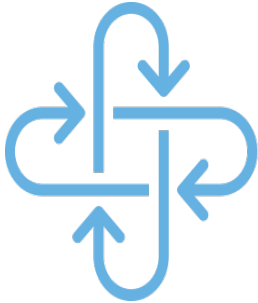


# Financing Energy from Waste Projects

October, 2014

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Positive energy.

- > Introduction
- > Role of energy and waste markets
- > Feasibility and minimizing risk
- > Financing options today
- > Example Projects

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## Baker Tilly is the 8<sup>th</sup> largest accounting network worldwide

- > Top 20 largest firms in the U.S. consisting of more than 1,700 professionals
- > Established in 1931
- > Offices throughout the Midwest and East Coast
  - Chicago
  - Detroit
  - Minneapolis
  - New York
  - Washington DC
  - Wisconsin



Since 2008, Baker Tilly has been involved with over \$3 billion of renewable energy projects that are either operating or under construction

- » Over 15 biogas projects (food processors and agricultural feedstock) and \$220 million of funding
- » Engaged currently with several food waste/organic diversion projects

Our role:

- > Financial Advisory and Funding Procurement
- > Accessing Federal Incentives (ITC, PTC, 1603 grants, NMTC's)
- > Development Support
  - Feedstock agreements, energy offtake (PPA's, CNG, heat sale agreements, etc.)
  - EPC, O&M and Technology procurement agreements

## > Economic Impacts

- Waste disposal costs and/or energy costs need to be “high”
- Projects need to be offsetting costs of parties that have a long term view

## > Regulatory Impacts

- Change in environmental law and/or enforcement
  - » State’s implementation of SWDA via permitting practices
  - » Organics diversion legislation
- Financial incentives
  - » Federal, state or local financial incentives (tax credits, loans, grants)
  - » Renewable attributes (RECs, RINs, carbon credits, etc.)

# Feasibility and Minimizing Financial Risk



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- > Who is behind the project?
  - > Financial strength of primary project owner/sponsor
  - > If owner does not have experience, what outside parties has the owner aligned itself with that do?
  - > How are outside parties (*engineering/design, construction, operations and maintenance*) aligned with the project's success?
    - > Fixed cost agreements, performance guarantees, liquidated damages, etc.
  
- > What fundamental needs does the project meet and why will the project's value proposition remain relevant over the funding period?
  - > Long term contracts with feedstock providers and off-takers (*power and by-products*) are typically the best way to answer this question.
    - > "Long Term" is defined relative to the term of the financing.
    - > Credit quality of counter parties has significant impact.
  - > The less cash flow coverage provided by long term contracts the greater owner/sponsor at-risk capital is required.

# Financing Options...



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Potential Funding Options	Cost of Funds	Comments
Grant Funds*	Nearly 0%	1603 program expired for biogas, some states have grants available.
NMTC Proceeds	Nearly 0%	Not an "entitlement program", must secure allocation from CDE
Utility Rebates/Grants	Nearly 0%	Depends on project deliverables and timing for "yearly" program goals/funding
Federal Loan Guarantees/TIF/Other	4-6%	Specific to project location, availability and owner's overall profile of need
Tax Equity**	8-15%	Supply/demand driven and is a fluid market
Senior Debt	6-9%	Depends upon Sponsor's background and contractual "de-risking" of the project
Equity	12-20+%	Depends upon technology's stage of development

\* May require bridge investment (for cases where funds received post COD).  
\*\* Cost of funds represents return provided by combination of tax benefits and cash flow.



# Federal Incentives – Capital Expenditure Based



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The most significant federal incentives in the US for biogas projects are driven by capital expenditure levels of a given project:

- > Section 48 Investment Tax Credit (ITC)
  - 30% of eligible costs
  
- > New Markets Tax Credits (NMTC)
  - Net benefit approximately 20% of allocation

- > Biogas projects typically fall under the “open loop biomass” or “trash” facilities definition. Applies only to projects that use the biogas to produce electricity.
- > Must have met “Begun Construction” deadline of 12/31/2013 (no hard credit termination date)
- > Transfer Rules
  - Notice 2013-60 states that as long as a facility has met the Begun Construction test via either the PWSN or Safe Harbor test, the owner of the facility when it is placed in service may claim the PTC or ITC
  - Doesn’t require the taxpayer to be the owner at the time the facility begun construction
- > Document “continuous efforts” in case placed in service date slips past the December 31, 2015 “deadline”
- > “Biogas ITC” has been proposed, uncertain whether it will extend the ITC

## > Requirements in all cases

- Must be investor at time qualifying equipment is placed in service
- Economic substance guidelines

## > Structures

- Flip Structure (Section 45, Revenue Procedure 2007-65)
  - » Investor owns 99% of project, sponsor owns 1% but is managing member
  - » Automatically shifts to 5/95 split at pre-arranged “flip point” (based on IRR for tax investor)
  - » Sponsor has option to purchase remaining 5% at FMV
- Sale-leaseback
  - » Term of lease must be meaningfully shorter than useful life of equipment
  - » FMV requirements
- Inverted Lease
  - » Useful when sponsor can utilize losses caused by accelerated depreciation

Tax Investor will have similar underwriting perspective to senior lenders

## > New Markets Tax Credits

- Designed to spur investment in economically disadvantaged areas (census tract driven)
  - Can be paired with energy credits
  - Brings additional low cost capital to fund a project
- Not an entitlement. CDEs control “allocation” of credits.
- Benefit to project of NMTC is approximately 20% of the capital spend in form of cheap capital, most of which is not repaid (\$2.0 million benefit on \$10 million project)
- Total allocation of \$40 billion since program’s inception in 2000

**2010 Census recently incorporated into NMTC program – means projects that were previously ineligible may now be eligible. Worth checking!**

## > Realities of financing Biogas projects today

- > Very few “biogas lenders” or “biogas tax investors” with a national focus
  - Some vendors have been acting like a biogas lender – with sizing of credit being cash flow driven (as opposed to just funding their equipment)
- > Regional banks are natural fit for the size and types of credit that must be underwritten, most have not created this wheel yet
  - Have seen several regional lenders fund projects with some form of credit support
- > Biogas projects can be more attractive to Private Equity (as compared to other renewables) due to upside
  - Several private funds are currently targeting the space with “structured equity” (preferred position with some upside, not requiring control)

# Project Finance for Biogas in US Today...



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- > Often must get creative to get funding done:
  - > Find funding parties with strategic reason to be involved:
    - > Lenders that have existing relationship to the project
    - > Stakeholders in the project (feedstock providers, vendors, etc.) that have tax appetite
      - > Helps dramatically if these parties are C-Corporations
      - > Passive vs. active income concerns
  - > Structure project agreements to reduce risk:
    - > Pre-payment provisions for revenue streams
    - > Credit support from outside parties (USDA, insurance for process guarantees)

### Private development of high strength liquid waste digester with 3.2 MW from 5+ large food manufacturers' feedstocks

- > Primary Driver – long-term cost and environmental risk associated with land application of waste water from food processors
- > Assembled long-term (10-years) feedstock contracts w/tipping fees
- > Able to procure power purchase agreement at adequate rate
- > Utilized proven technologies with 2 year performance guarantees required by lender (non recourse debt)
- > Utilized combination of equity, mezzanine funds, vendor financing state loans, NMTC funds and debt to finance (approx. \$28.5 MM project)

### Private development of food waste digester – 150,000 tons/yr

- > Primary Driver – landfill diversion of organic waste in east coast metro area
- > Integrating multiple technical parties (pre-processing, AD, water treatment)
- > Assembling long-term feedstock contracts with municipalities, institutions and commercial haulers
- > Back end solid disposal to be handled by large yard waste recycler
- > Energy offtake to be CNG (both existing fleet and offtake contract)
- > Utilizing combination of equity, mezzanine fund, state grants and debt to finance (approx. \$45 MM project)





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