



Imperative
Energy

THE TRUSTED NAME IN BIOENERGY SOLUTIONS

FINANCING BIOENERGY PROJECTS

Joe O'Carroll
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IrBEA National Conference

Connect to the biomass pipeline



PRESENTATION CONTENTS

- **Company Overview**
- Bioenergy Projects – risk analysis
- Funding options
- Improving the Conditions for *Sustainable* Bioenergy Projects in Ireland

COMPANY OVERVIEW



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- Founded in September 2007
- Offices in Maynooth, Ireland and London, UK (new Manchester office opening next month)
- Three new project wins in UK in January.
- Currently working on >10MW steam plants and biomass CHP plants in UK and Ireland
- Strategically aligned with leading sector partners to extend capabilities
- August 2009 – complete €30m equity finance package
- Finalising €70m debt finance package (non-Irish bank)

EQUITY PARTNER



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€1.8 billion of committed funds



€150 million committed fund to invest in renewable energy assets and companies



€30 million committed fund to invest in Biomass projects

FUEL SUPPLY PARTNER

- Green Belt Ltd
- Deep Expertise in forest management and SCM
- Developing customer focused delivery logistics
- Already secured access to sufficient quantity of biomass to supply over 100MW of capacity





- Over 70 years experience in manufacturing biomass energy systems
- Market leader in Switzerland and growing presence in Europe, Asia and America
- Employ over 200 people and complete all manufacturing in house using latest technology and innovation
- ISO 9001 certified, CE marked and PED compliant
- Biomass boilers up to 25MW rated output
- Can burn variety of different types of biomass
- Can produce hot water, steam or thermal oil
- Customisable fuel handling and control systems for maximum performance
- Proven CHP reference plants for ORC & steam turbine

ENGINEERING PARTNER



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- Exclusive partnership with BIOS of Austria
- Leading international engineering consultancy
- Specialise in design and implementation of biomass energy systems
- Completed over 20 biomass CHP plants using range of technologies in varied applications
- Our partner in assessment, design and project management for biomass CHP



PRODUCT/SERVICE OFFERING



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1. Turnkey solution provider for biomass heating & biomass CHP
 - Design, implementation, project management and maintenance
 - Proven technology and flexible customised design
 - Up to 10MWe and/or 40MWth
2. Energy Supply Company (ESCO)
 - ESCO means we finance, build and operate entire system
 - Customer only pays for metered heat on a long term contract
 - Eliminates the need for capital cost and produces lower energy costs and carbon emissions
 - Imperative Energy assumes all the operational risk
 - Applicable to dairy, food, brewing, pharma, timber processing sectors of industry and Public buildings

Sample: DOWNSHIRE HOSPITAL



Boiler
Fuel
Moisture
Grate
Medium

UTSK 1600kW
woodpellets
10%
underfeed stoker
hot water





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Typical Project Risks

- Technology – supplier performance guarantees
- EPC contract and construction management
- Offtake contracts – credit worthiness; price indexation
- Feedstock contracts - credit worthiness; price indexation; security of supply
- Operational experience and capability
- Regulatory & compliance trends

Critical Components for Successful Bioenergy Projects



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- Secure fuel supply
- Credible, proven and financially secure technology partner
- Expert design capabilities
- Experienced O&M team/partner
- Finance (grants/debt/equity)



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Basic Types of Funding

- Capital Grants
- Debt
- Equity



Capital Grants

- Typically:
 - Little or no clawback of grant once received
 - Rarely linked to actual performance
- But,
 - May be restrictions and pre-qualification criteria that hamper the project
 - Often subject to bureaucratic, time wasting application procedures and reporting requirements
 - No certainty of availability of funds
 - Seriously hamper availability of lease financing (immediate depreciation of resale value by amount of grant)
 - Ireland simply can't afford them!

Debt

- In the current climate,
 - Next to impossible to get bank debt for pre-revenue/start up companies
 - Increasingly require not just personal guarantees but ‘liquid’ security
 - Project must pass strict and detailed risk assessment
 - Senior: Base rates low but bank margins very high
 - Mezz: 10-18%
 - PE loan notes 20-30% offered by some companies (the high offers should set off alarm bells)
 - Senior debt only practical for >€2m projects



Equity

- Advantages

- No cost of finance until exit (unless dividends paid)
- Alignment of interests between promoters and investors

- Disadvantages

- Dilution of promoters' equity
- Exit required at some point – MBO, Trade Sale, IPO



Sources of Financing

- Commercial Banks
- FFF
- Angel Investors
- Venture Capitalists/Private Equity
- Government
- Strategic Partnerships
- Public Equity Markets

Commercial Banks

- Limited availability
- Increasingly costly (interest rate margins + arrangement fee)
- Long-term relationship (no early exit)
- Likely to take charge over all unencumbered assets
- Increasingly tight covenants or guarantees
- Maximum debt funding for projects ~70%



Friends, Families, Fools

- Easy to access
- Often attractive valuation or terms
- Flexible terms – limited interest, flexible duration.
 - Can be facilitated via BES scheme.
 - Save them 42% tax but lose them 100%
- Usually only available for start up/pre-revenue stage
- Rarely any added value to the project
- Great for shaking off the in-laws!

Angel Investors

- Quick decisions
- Higher level of industry knowledge and management/investment experience than FFF
- Possibility of value-add beyond just finance (i.e. knowledge/mentoring)
- Hard to find in current climate
- Usually have investment criteria
- May take some equity



“Vulture” Capitalists

- Value-add beyond finance (management, industry knowledge, networking, introductions)
- Added creditability with business community
- Stringent investment criteria/hard on valuation
- Slower to act – detailed DD
- Required exit within 3-5 years
- Can take more management time than running the business
- Can be prone to manipulation to serve their own interests



Government

- All startups should be connected to EI
- Limited dilution of equity (CCRPs)
- Limited funding available at present
- Stringent reporting requirements
- Terms may not be acceptable to all other shareholders
- Capital Grants available from SEI and IDA

Strategic Partnerships

- Many different options (early, late, equity, debt)
- Often attractive valuation or terms
- Can serve as both as early/growth stage financing source and an exit (buyout)
- Non-cash benefits (synergies, lobbying, HR)
- Potential for exploitation
- May dilute entrepreneurial spirit
- Can limit relationships with competitive firms



Public Equity Markets

- Serves as an exit strategy as well as financing
- Major branding event – positive PR
- Liquidity for early investors
- Many statutory reporting requirements
- Costly and time consuming



Which Option

- You certainly won't decide which financing option is appropriate
- Project risk will determine financing option
- Target project finance:
 - 70% senior debt; 7-10 years; non-recourse
 - 30% equity
 - Option to refinance after first few years successful operation
 - Consider wrapping larger projects into SPV
 - limit securities/liabilities to assets of the SPV



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IRELAND'S OPPORTUNITY

- Biomass yields in Ireland higher than elsewhere in Europe
- Agricultural heritage
- Low level of forest cover
- Bioenergy is more employment intensive than any other form of renewable energy

How to maximise value in terms of jobs?



STIMULATING ECONOMIC ACTIVITY



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- Immediate **ZERO COST** policy initiatives
 - assist all public bodies to procure Renewable Heat
 - Target ZERO oil usage in public buildings by end of 2010
 - Anti-competitive? Remember OPEC?
 - switch future gas network distribution to water (District Heating)
 - Future proof our energy networks
- **MARKET ACCESS, NOT CAPITAL GRANTS**
- Benefits:
 - Reduce energy imports & carbon emissions
 - Generate market pull for biomass (forestry and energy crops)
 - Stimulate rural employment
 - Strengthen Irish bioenergy companies for export markets



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