

Investments in clean and efficient energy

The Exergy Efficient Energy Fund (E3F)

€ 350 million efficient clean energy infrastructure income fund for the EU Accession countries

"In thermodynamics, the **exergy** of a system is the maximum useful work output it is theoretically possible to attain"



20 MW biomass plant, Hungary

10 MWe gas CHP engines

Signatory of:



March 2015

EnerCap - leading investment in low carbon energy in The EU countries of Central Europe (CEE)

- EnerCap currently manages over €450 mil of clean power generation assets, providing energy to over 200,000 homes and saving over 130,000 tonnes of carbon p.a.
- EnerCap is an experienced fund manager with regulated administration in Guernsey. Focused initially on CEE as an "emerging market" in renewables, clean energy and energy efficiency and having to meet EU compliance standards.
- EnerCap EPF I (2007) was the first clean energy PE fund in the region. Focus on capital gains with projects screened to provide a 25% project IRR and/or 2x. EPF I concentration on wind and some solar.
- EPF I is fully invested and so EnerCap is exploring the exit of the EPF I portfolio which may include a placement to secondary investors, the buy-out of co-shareholders and acquisition of additional known wind projects for a follow-on exit in 5 years
- Over the last 3 years, EnerCap sourced a number of new utility scale projects to provide low carbon emission heat and power generating plants to replace aging municipal plants. CEE has large centralised heating networks which supports now the use of highly efficient Combined Heat and Power (CHP) technology as required by the EU Energy Efficiency Directive and carbon emission targets.
- Enercap will finance and commission the projects. CHP projects have three revenue sources electricity, heat and grid services (balancing, peaking etc.) The Fund will not invest in or distribute heat existing heat network operators will have indexed off-take agreements for the heat.



Example: 42 MW wind project in Croatia

- 14 x V90 3 MW turbines 14 wind towers,
- EnerCap started working on the project with the developer in 2008 ahead of the acquisition. The Project development rights were acquired by the Fund in July 2010. EnerCap retained its own team located in Croatia to complete the development of the project.
- EnerCap financed and constructed the project with a third party BoP contractor and Vestas.
- EnerCap's asset management team manages the project



EnerCap EPF I Fund – fully invested

EnerCap Capital Partners

- In 2007 EnerCap raised EPF I € 98 mil private equity fund focused on renewable projects in Central Europe
 - Team of 6 experienced partners plus investment managers located in Prague, with representation in London
- EPF I fully invested into 9 projects
 - 309 MW in wind and solar projects in Poland, Czech Republic, Croatia and Romania
 - Secured co-investment from Crescent Capital (Obrovac) and the Marguerite Fund (Chirnogeni)
- EnerCap as private equity investor holds a 25% stake in GEO Renewables

EnerCap's Proprietary Relationship in Poland

- EnerCap has a proprietary relationship with GEO Renewables, the leading wind project developer in Poland
 - Invested in GEO Renewables in 2011
 - The team has constructed and commissioned 6 wind farms totalling over 370 MW in Poland
 - 1,000 MW pipeline projects with grid connection rights
 - Development and construction of largest wind farm in Poland (120 MW Margonin commissioned in 2009)
 - Established in 2007 by a team of 5 former EDP Renewables Poland and PSE (Polish National Grid) senior managers

Portfolio Geography



Leveraged Portfolio

- EnerCap has raised non-recourse project finance for each project, typically in the range of 60-80% of construction costs
- Debt financing has been provided by:





Energy Efficiency - A necessity and opportunity in Central Europe

- Central Europe has extensive centralised district heating systems, but generation plants are very old, emission intensive and need replacement.
- Some people in the Eastern Europe today lack a regular source of domestic hot water, due to heating infrastructure disrepair.
- Investment is a social need, and can provide attractive returns through efficiency gains and flexible operation for grid services, without the need for subsidies.
- The EU Energy Efficiency Directive (2012) states that waste heat from power generation must be utilised, providing substantial carbon reduction. Most new build Power plant will need to be Combined Heat and Power (CHP)
- An investment in the E3F Fund will support much needed infrastructure investments and also provide flexible high response electricity for grid balancing. The CHP gas engines can offset very rapidly variations in power supply on the grid caused by renewables.
- The fund will only invest in low emission gas and biomass projects, not carbon intensive coal.

Age of Polands Power Plants by Fuel







Exergy Efficient Energy Fund (E3F)

Investment Case: Investing in pre-screened and analysed projects captures for real asset investors high 25+ year project yields with clear exit opportunities

- The E3F Fund will invest in 7-10 new build power generation projects, using the most efficient, low carbon emission and flexible power generation technologies. Typical equity per project €20-40 mil. Typical construction period 12-18 months from investment. The Fund will also target a small number of newly built operating projects, well known to EnerCap, that may be acquired at good value. These can provide early yield for the fund
- Projects are constructed with leading international partners and where EnerCap has established relationships Wartsila, GE (Jenbacher), Siemens, Rolls Royce.
- Secure and predictable cash flows Long term heat supply contracts (20+ years), regulated and indexed prices providing margin protection against fuel price movement. Efficiency of power conversion and highly flexible operations (fast load response) provides enhanced returns over simple base load power generation (grid services).
- The construction capex cost of a project is significantly lower than the discounted value of its operating life cash flows. By investing at the capex cost the fund captures this increase in value when bringing the asset into operation, which increases project yield compared to a typical brown field acquisition. EnerCap has extensive construction management risk experience.
- EnerCap are proven and experienced at delivering energy project investments across the region. There is a demonstrable mature pipeline, derived from EnerCap's extensive activities in the region since 2007
- Unlevered project IRR: 12-14% for target projects. Low debt strategy to prove a net running yield of 8-10% for the assets in operation, and a net 10 year IRR of 12-16%. Long asset life (>25 years) underpins exit value. Fund will build own an operate the assets for the term of the fund, exiting the portfolio to financial or strategic investors.
- Cornerstone investor secured (Polish sovereign fund), target first close €100 mil Summer 2015



Selected Investment Pipeline

EnerCap has screened and sourced operating projects to bring immediate yield and near-term new projects

Projects	Country	Info	Equity€M	Status	Investment date	Yielding
Operating Project	ts					
Project 'VE'	RO	22 MWe gas engine DH CHP. Commissioned 2010	18	Stable. Owner seeking exit. EnerCap Preferred partner. 2 nd site planned.	Immediate	On acquisition
Project 'SC'	RO	30 MWe Biomass & Gas DH CHP. Commissioned 2013	30	Plant operating well but Shareholders in dispute. EnerCap preferred.	3-6 months	On acquisition
Project 'DB'	HU	20 MW Biomass, heat potential. Commissioned 2009	18	Distress situation. EnerCap engaged at banks request.	3 Months	On acquisition
Project 'ET'	PL	Multi site small GAS CHP, 2 operating DH. Trading entity.	15+	Platform investment, expansion capital	3-6 months	Rising 3 years
Projects to be B	uilt and Commiss	sioned				
Project 'P2'	RO	60-200 MWe gas DH CHP and balancing	30	Captive to EnerCap. In planning phase.	9-12 months	12 Months from FC
Project 'PZ'	PL	28 MWe Gas DH CHP.	16	Direct with Municipality. Time critical due to emission compliance	3-6months	12 Months from FC
Project 'TH'	PL	49 MWe biomass project with some DH.	45	Preparing for bid under new energy law. EnerCap preferred partner, can be captive.	12 Months	24 Months from FC



EnerCap Efficient Energy Fund Summary of Principal Terms

10 year income fund to	Fund	Exergy Efficient Energy Fund L.P., a regulated Fund established in Guernsey.	
generate current yield and capital gains at termination of the Fund.	Registered Fund	The investment structure is approved as a Registered Fund by the Guernsey Financial Services Commission.	
	Target Size	€100 mil initial closing with target commitment of €350 mil.	
Investments will be held for the life of the Fund to generate annual cash	Term of the Limited Partnership	10 years with option to increase 1+1.	
returns rising to 8-10%	Commitment Period	5 years. Drawdowns will cease after the Commitment Period. To maximise capital for investments, the management fee and fund costs are to be paid from operating cash flows of the investments. The goal is to fully invest all capital.	
Target net IRR at year 10 of 12-16% representing a cash	Fund Manager	EnerCap Capital Partners Limited, a company registered in Guernsey whose shareholders comprise the members of the management team.	
multiple of 2.5-3.0x	General Partner	E3F L.P. Incorporated , a Guernsey Limited Partnership is the General Partner (GP) of the fund partnership. The GP of the GP is E3F (Guernsey) Limited, a company registered in Guernsey and owned by the Fund Manager.	
E3F will utilise the fund			
administration, reporting and fund	Target Returns	E3F will yield annual cash returns rising to 5 to 8% per year, and will target circa net 12 to16% IRR 2.5-3.0x cash multiple)	
management resources set-up and used to date	General Partner Commitment	GP to invest 1% of the Funds total commitments.	
for EPF I	Management Fees	A fee of 1.75% p.a. will be administered against Capital Commitments and drawn down amounts until the end of the Commitment Period. Thereafter 1.75% of Assets Under Management.	
	Performance Fee	An annual performance fee is paid to the Fund Manager as 20% of net annual distributions to investors above a 8% return on the capital drawn down. At the termination of the Fund, this will be offset against a carried interest of 20% of total returns during the term of the Fund over a 8% hurdle.	



Experienced Management Teams

Partners and the Asset Management Team cover all sectors and life cycles of projects

Operations, Administration and Financing Partners



Alastair Hammond EPC and supplier contracts, construction monitoring, fund administration and reporting



Jim Campion thermal projects - investment strategy, analysis, technology, terms, and project management

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Thermal and Energy Efficiency Partners



Shane Woodroffe project analysis, project financing, deal terms, debt management, banking compliance



George Formandl thermal projects - deal flow, terms, investments, third party contracts

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EnerCap Asset Management Team (EAPM)



David Jackson Operations Director



Financial Manager



Slawomir Przychodni Project / Investment



Magda Nelesovska





Ewan Gibb wind project sourcing and investment management, deal structuring and investment terms



Wind, Solar, Deal Terms, Structuring and Investors

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