Mezzanine Financing for Geothermal Power

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Overview of Energy Mezzanine Opportunities Group

- We invest in projects and companies across the energy value chain, primarily in the US and Canada
  - Upstream oil and gas
  - Power generation (commercially proven technologies)
  - Energy-related infrastructure and processing assets
  - Mining and related natural resource assets
  - Oil field services

- Provider of capital for acquisitions, refinancings, and development and growth

- Investment process emphasizes flexible deal structures, rapid turnarounds, and straightforward negotiations

- Team headed by former Morgan Stanley Project & Structured Finance professionals who have spent their careers focused on investing in, and financing, energy projects
  - Full time reservoir engineer on staff
CEMOF seeks an attractive risk-adjusted returns from investments with substantial collateral.
### Comparative Analysis

#### Bank debt
- Management retains entirely all profits
- Total profit limited by funding constraints on the drilling program
  - Lower commodity price forecasts
  - Semiannual borrowing base redeterminations largely based on PDP

#### Private equity
- Sufficient capital for development plan maximizes Company profit
- Management gives up significant portion of total profit to private equity investor

#### Mezzanine
- Sufficient capital for development plan maximizes Company profit
- Management retains control and receives a greater portion of the upside

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**Mezzanine capital allows management to achieve full development plan potential and retain more equity upside**
Why Mezzanine?

- **Flexible structure**
  - Combination of cash-pay and PIK coupons and equity kicker
  - 1st lien, 2nd lien, subordinated, or preferred equity
  - Bullet or amortization

- **Always available**
  - Available when public debt markets are closed
  - Available for all sizes including small companies which do not have an access to HY market

- **Less dilutive**
  - Less dilutive than private equity
  - Management in control of operations
**Investment Structure Examples**

**Structure 1: 1st Lien Senior Secured Debt**
- OpCo
- Uni-tranch Stretch Debt
- Operating Assets
- Other Operating Agreements

**Structure 2: 2nd Lien Senior Secured Debt**
- Hedge Contract
- OpCo
- 2nd Lien Senior Debt
- Operating Assets
- Other Operating Agreements

**Other Operating Agreements**
- Operating Assets
- OpCo
- 1st Lien Senior Debt
- Other Operating Agreements
**Investment Structure Examples (cont’d)**

**Structure 3: HoldCo Subordinated Debt**
- HoldCo
- HoldCo Notes
- OpCo
- Operating Assets
- Hedge Contract
- OpCo Senior Debt
- Other Operating Agreements
- Existing OpCo
- Acq. OpCo
- Uni-tranch Stretch Debt

**Structure 4: Acquisition Debt**
- HoldCo
- Hedge Contract
- OpCo Senior Debt
- Other Operating Agreements
- Existing OpCo Assets
- Acq. OpCo Assets

*Equity in existing asset contributed to fund acquisition*
# Investment Profile

**Sector Focus**
Upstream, midstream, downstream

**Geographic Focus**
US and Canada

**Investment Size**
Target $25 million to $100+ million

**Investment Tenor**
2 - 6 years

**Return**
Combination of current cash pay, PIK and equity kickers (e.g. NPI, ORRI, warrants)

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*We structure creative & flexible capital solutions tailored for specific company needs*
Investment Approach

➢ To Get Started:
  • Identify strong management teams with proven track records of value creation
  • Provide capital for acquisitions, refinancings, and development and growth
  • Incorporate financial structuring tailored to each opportunity
  • Investment process emphasizes rapid turnarounds, streamlined execution and straightforward negotiations
  • Provide an attractive alternative to equity capital for projects with cash flow visibility and development potential
  • Allow equity holders to retain meaningful upside and control
Sector Interest - Geothermal

- Renewable resource
- Typically backed by long-term PPA
- US tax benefits
  - 1603 tax grant through 2013
  - 30% ITC/PTC for projects commencing construction in 2013
  - Accelerated depreciation
- Drilling resource similar to upstream oil & gas (Petroleum engineer on staff)
- Familiarity with the power space and underlying markets
**Geothermal Project Life Cycle**

- **Early Stage**
  - Site Identification & Lease Acquisition
  - Resource characterization / early-stage development
  - PPA transmission / interconnection
  - Environmental / permitting
  - Production well drilling

- **Late Stage Development**
  - Completion of production well and injection well drilling
  - Well testing
  - Finalize EPC

- **Construction & Project Finance**
  - EPC construction commences

- **Operations**

**Risk Profile**

**Financing**
- Private Equity
- Corporate Equity
- Balance Sheet

- Mezzanine Debt
- Construction Loan
- Cash Grant Bridge Loan
- Term Loan
- Tax Equity

*Early stage /exploratory risk may be challenging*

*Welcome the opportunity to get quality projects through construction*
Overview of The Carlyle Group

- Established in Washington, D.C. in 1987
- One of the world’s largest and most diversified multi-product global alternative asset management firms:
  - $157 billion in assets under management across 101 funds and 64 fund of funds vehicles
  - $50 billion of cumulative equity invested in 439 Corporate Private Equity transactions
  - 31% Gross IRR on realized and partially realized Corporate Private Equity transactions
  - 2.6x gross equity returned on realized and partially realized Corporate Private Equity transactions
  - $29 billion of cumulative equity invested in 594 Real Assets transactions
  - 28% Gross IRR on realized and partially realized Real Assets transactions
  - 2.0x gross equity returned on realized and partially realized Real Assets transactions
  - More than 1,300 employees in 32 offices in Africa, Asia, Australia, Europe, Japan, the Middle East, Latin America and North America
  - Large diversified investor base (more than 1,400 active carry fund investors from 75 countries)
  - Achieved results without what Carlyle believes are undue financial risks to investors, and without sacrificing quality controls or integrity

Note: As of September 30, 2012, unless otherwise noted. Gross IRRs do not reflect management fees, carried interest, taxes, transactions costs and other expenses to be borne by investors in the investment funds, which will reduce returns and in the aggregate are expected to be substantial. Investments are considered partially realized when distributions are a substantial majority of invested capital.
**Broad Geographic Footprint, Well Positioned For Growth**

*More than 1,300 employees in 32 offices around the world*

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**U.S. fund families:**
- U.S. Buyout
- Global Financial Services Buyout
- U.S. Small Buyout/Growth
- U.S. Real Estate
- Realty Credit Partners
- Global Infrastructure
- Global Energy
- Renewable Energy

**Europe fund families:**
- Europe Buyout
- Europe Growth/Technology
- Europe Real Estate
- Distressed & Corporate Opportunities
- Structured Credit
- Energy Mezzanine
- Long/Short Credit Hedge Funds
- Emerging Markets Hedge Funds
- Fund of PE Funds
- Secondaries

**Asia fund families:**
- Asia Buyout
- Beijing RMB Partners
- Japan Buyout
- Asia Growth
- Asia Real Estate
- Long/Short Credit Hedge Funds
- Emerging Markets Hedge Funds
- Fund of PE Funds
- Secondaries

**Latin America fund families:**
- South America Buyout
- Peru Buyout
- Emerging Markets Hedge Funds
- Fund of PE Funds
- Secondaries

**MENA fund families:**
- MENA Buyout
- Emerging Markets Hedge Funds
- Fund of PE Funds
- Secondaries

**Sub-Saharan Africa fund families:**
- Sub-Saharan Africa Buyout
- Emerging Markets Hedge Funds

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Note: As of September 30, 2012.