

Aravis Energy

Sustainable, CO₂-reducing and un-correlated investment in renewable power production

Dr. Oliver Thalmann, CFA

**Geneva Forum for Sustainable Investment
26 March 2009**

2009

Renewable energy is not a passing fashion, it is a long-term trend

- Broad **acceptance** of renewable energy in the European population
- EU countries have taken action to **reduce CO₂ emissions**
- Secure and **governmental guaranteed cash flows** for renewable energy production
- Asset owners and managers are “more likely” or “much more likely” to **increase their exposure to renewable energy**, according to a survey by New Energy Finance
- **High requirement** of worldwide investment in renewable energy production sector

Aravis Energy offers attractive sustainable investments

Part I – Growing renewable electricity market

- Electricity infrastructure requirements
- Advantage of wind power
- Italian electricity market

Part II – Aravis Energy's privileged access to power assets

- Investment strategy and life cycle
- Financing and expected return
- Tax, legal and team

Part III – Conclusion

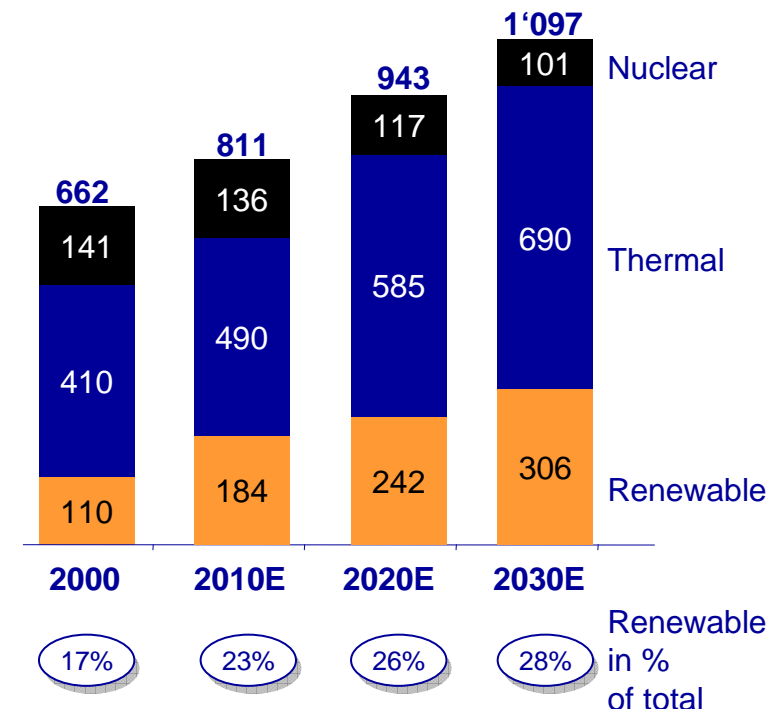
- Investment summary
- Key advantages

PART I – GROWING RENEWABLE ELECTRICITY MARKET

High demand for (renewable) electricity infrastructure

- **High energy production infrastructure requirements**
 - Worldwide USD 16 trillion by 2030*
 - EU EUR 1'000 billion by 2020
- **Low renewable share**
 - 80% of electricity generated based on either fossil fuels or nuclear
- **Supply and environmental concerns**
 - Kyoto / IPCC / Emission trading
 - Political support by long-term incentive systems in place in EU
 - Ageing existing production assets
 - Security of domestic energy supply

Power generation capacity in EU-25 (in GW)



Source : EU Commission – European Energy and Transport: Trends to 2030

Wind power is the leading technology in Europe

- **Environmental and political advantages**
 - CO₂-free electricity generating
 - Decentralized energy production reduces dependency on energy supplier
- **Technology**
 - Wind power installation #1 in EU in 2008
 - Proven and experienced technology
- **Production costs**
 - Low cost and competitive with conventional plants
- **Revenues**
 - Uncorrelated, only wind hours matter, wind hours well predictable
 - Long-term governmental guaranteed cash flows (15-25 years)

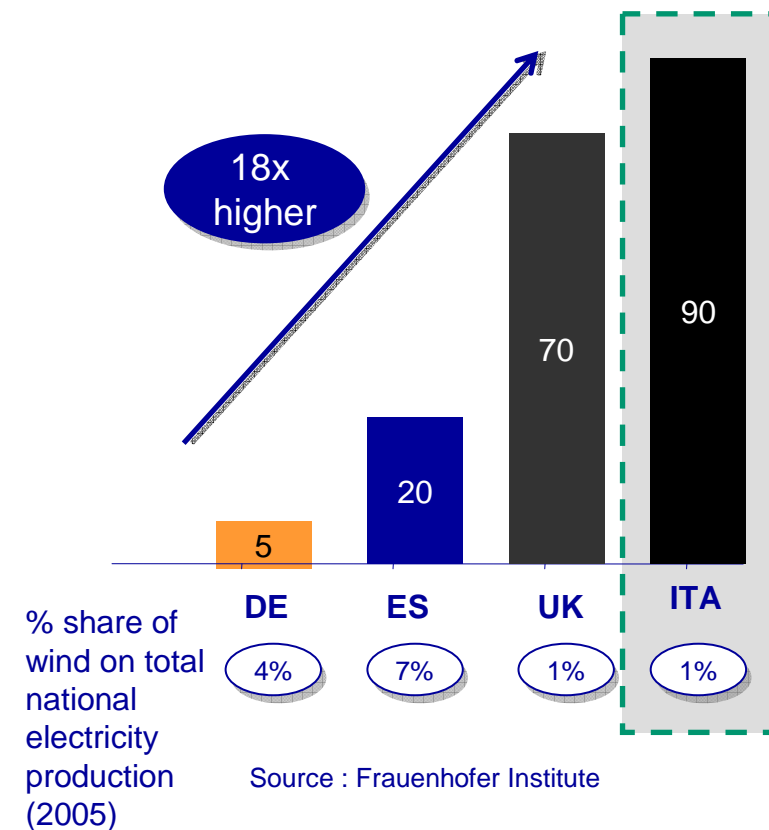
| EU electricity generating capacity installed in 2008 | MW |
|--|----------------------|
| Wind | 8'484 (36%) |
| Gas | 6'932 (29%) |
| Photovoltaic | 4'200 (18%) |
| Oil | 2'495 (10%) |
| Coal | 762 (3%) |
| Hydro | 473 (2%) |
| Nuclear | 60 (0%) |
| Total | 23'851 (100%) |

Source : EWEA (2009)

Italian “green” electricity market is the most attractive EU market

- **Electricity supply deficit**
- **Low share of renewables**
- **Long-term governmental scheme**
 - Obligation to produce green power or buy green certificates (4.5%)
 - Obligation increases by 0.75% p.a.
- **Highest electricity and green certificate prices (≠CO₂-certificates) in EU**
 - EUR 86/MWh electricity
 - EUR 101/MWh certificati verdi
- **Highest green electricity prices**
 - Revenue: EUR 180/MWh
 - Production costs: EUR 70-90/MWh

Margin between revenues and costs in EUR/MWh



PART II – THE ARAVIS ADVANTAGE – PRIVILEGED ACCESS TO POWER ASSETS

Aravis Energy is a 100% “green” investment



Key features

- Average park size of 20-30 MW
- Total 200 MW capacity = 100'000 households = 250'000 tons p.a. CO₂ reduction
- Estimated return: **2.8-3.4x multiple**
- Holding period 5-7 years

Investment strategy with focus on “hard” assets

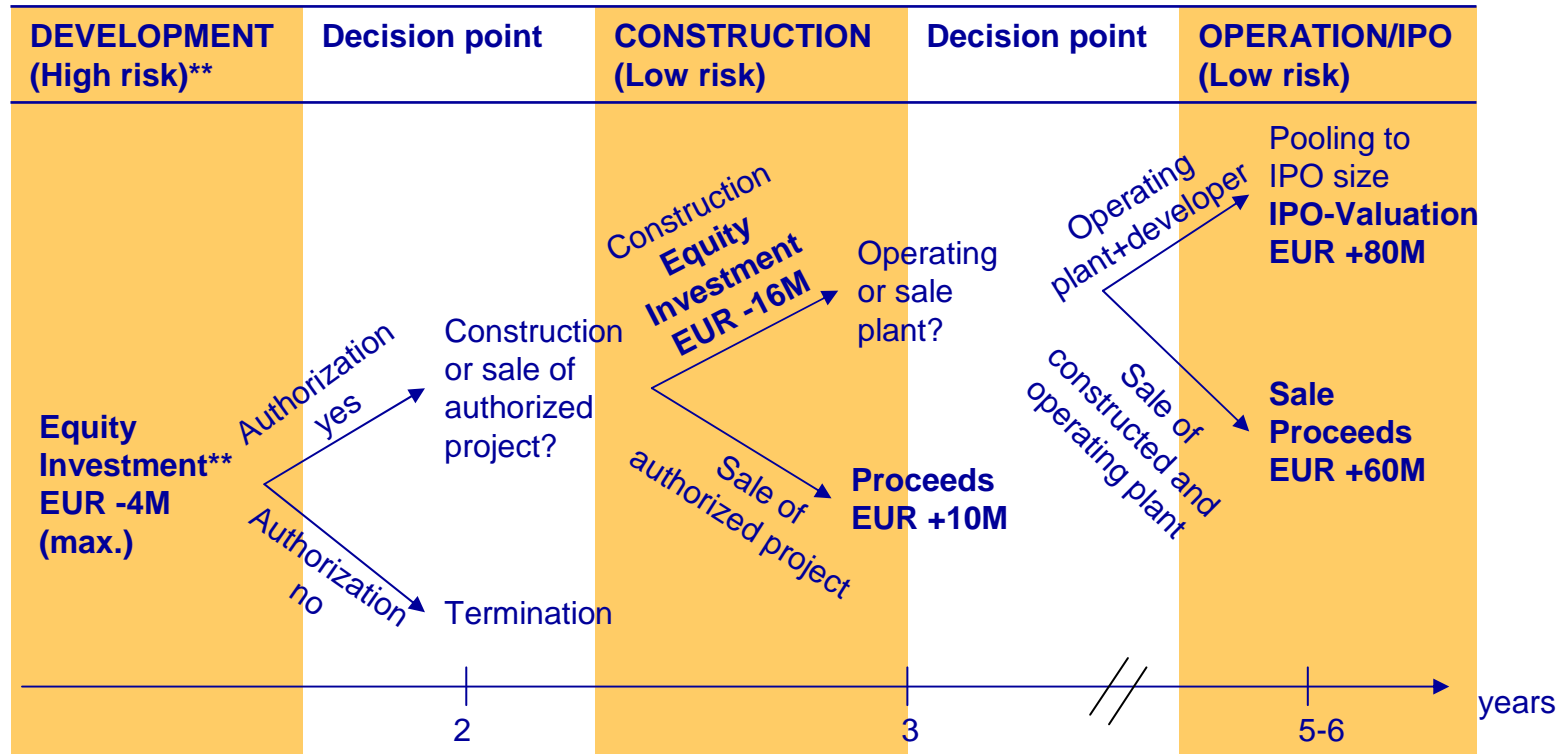
- **Develop, construct and operate a portfolio of 200 MW wind power parks**
 - EUR 100M equity providing an investment capacity of EUR 400-500M
 - Wind parks - 20-40 MW per park
- **Control power producing asset**
 - Joint-venture approach with successful local companies
 - Majority shareholding and active board of director’s role
- **Project Finance**
 - Low interest environment for asset financing
 - Secure long-term contracts
- **Exit within 5-7 years**

Timetable Aravis Energy

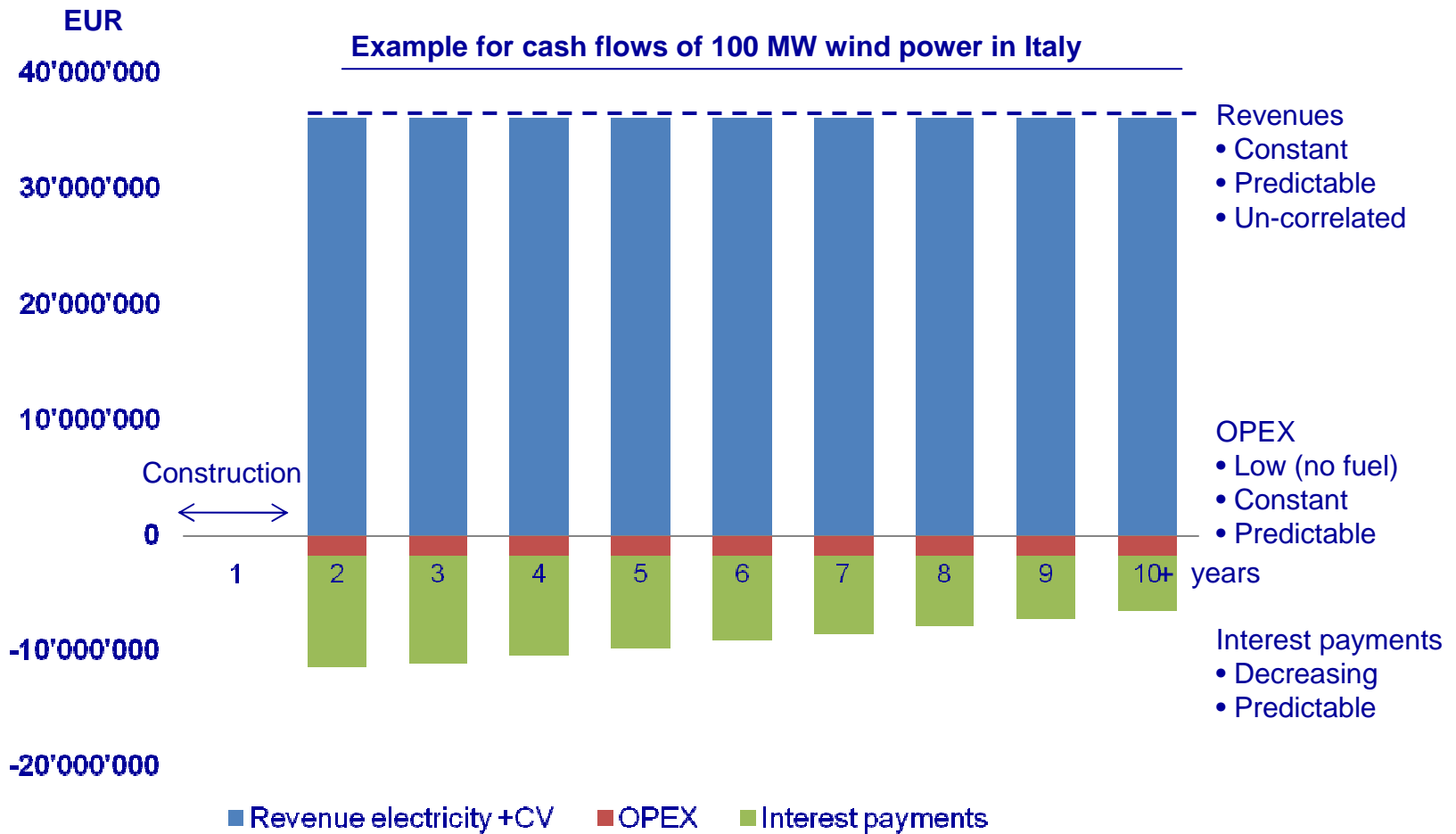
- **2009-2010**
 - Implement business model and investment strategy
 - Develop 120 MW size
 - Fund raising / Project Finance
 - Construct first wind parks
- **2010-2013**
 - Develop 80 MW size
 - Construct remaining wind parks
 - Fund raising / Project Finance
 - Exit first wind parks
- **2014-2016**
 - Exit remaining wind parks

Typical Aravis wind park development investment in Italy

Example of 40 MW wind park development*



Cash flows are predictable, secure and un-correlated for 15+ years

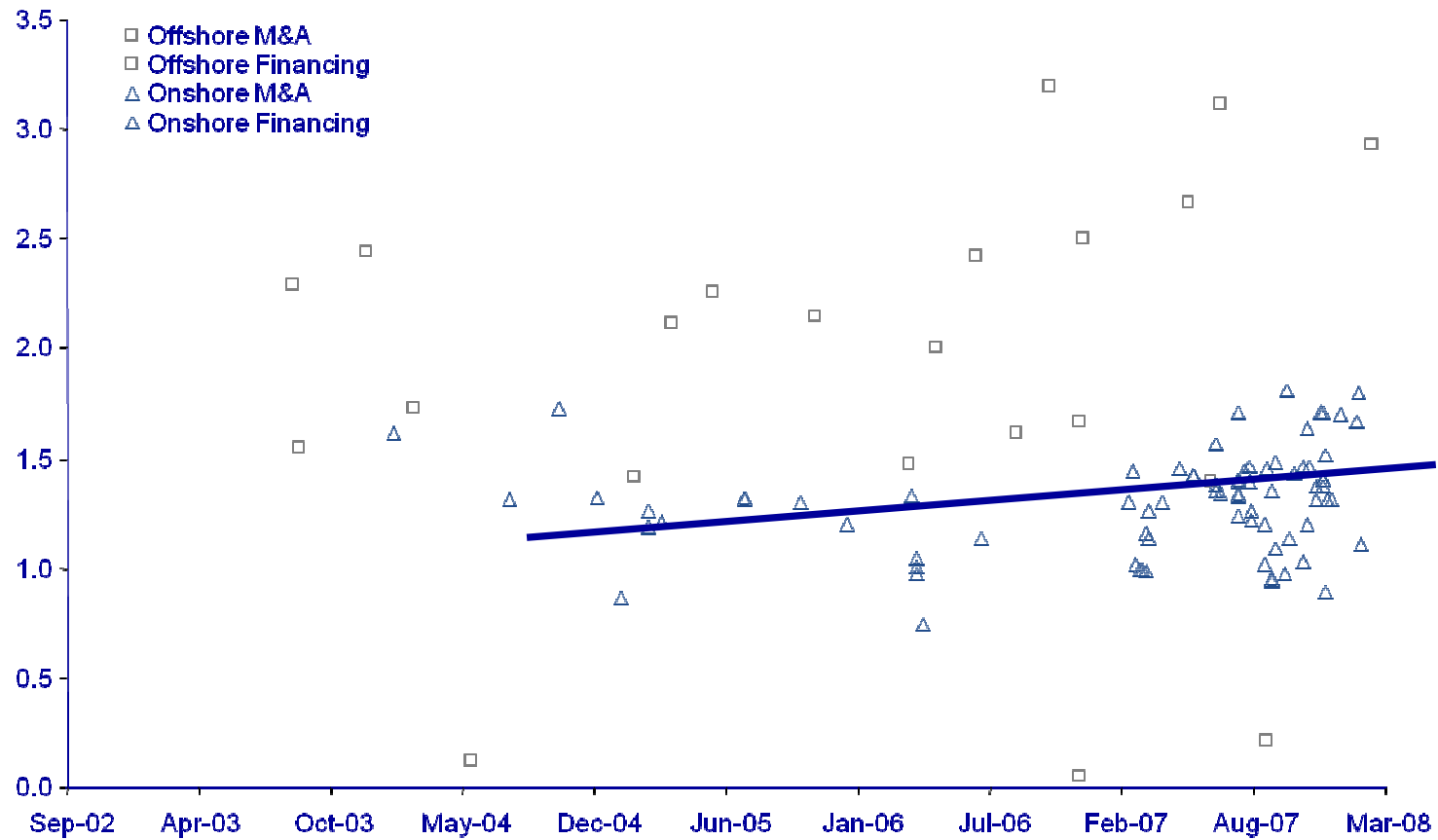


Financing requires substantial amounts to construct parks

| Estimates | Development | Construction | Operations |
|---|-----------------|--------------|------------------------------|
| MW capacity, operating hours and production | 200 MW | x 2'000 h | = 400'000 MWh |
| Equity investment | EUR 20M | + EUR 80M | = EUR 100M |
| Debt loans | | EUR 320M | |
| Equity investment cost | | | EUR 0.5M per MW |
| Annual revenues | EUR 180 per MWh | 400'000 MWh | EUR 72M |
| Annual EBITDA | | | EUR 65M |
| NPV | | | EUR 277-335M |
| Equity value | | | EUR 1.4 - 1.7M per MW |
| Multiple | | | 2.8x - 3.4x |

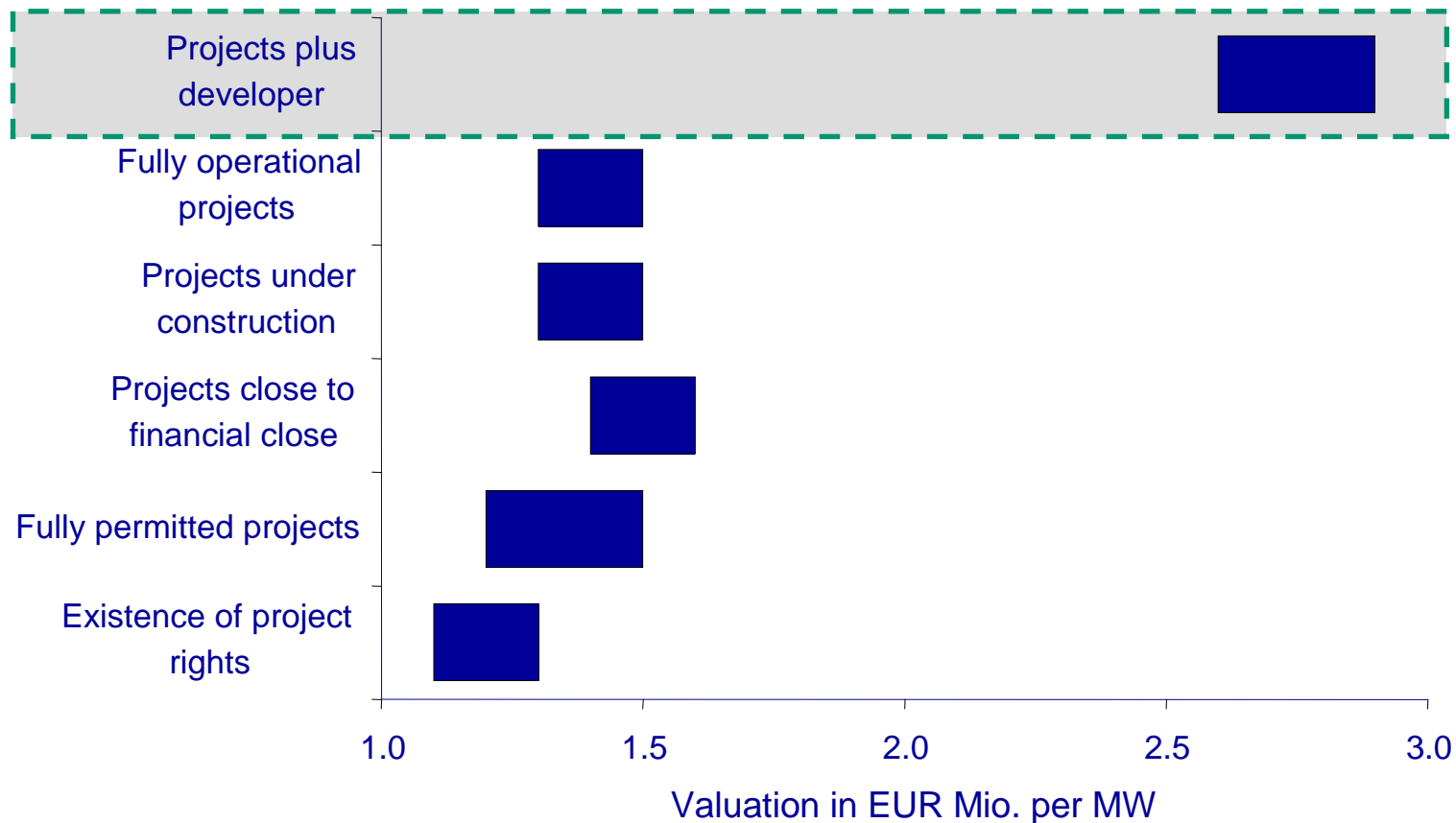
Expected return is inline with recently paid M&A prices

EUR Mio. per MW



Source: NEF, MergerMarket, Windpower Monthly, Augusta research

Aravis business model may lead to return enhancement



Source : Augusta, EWEC 2008

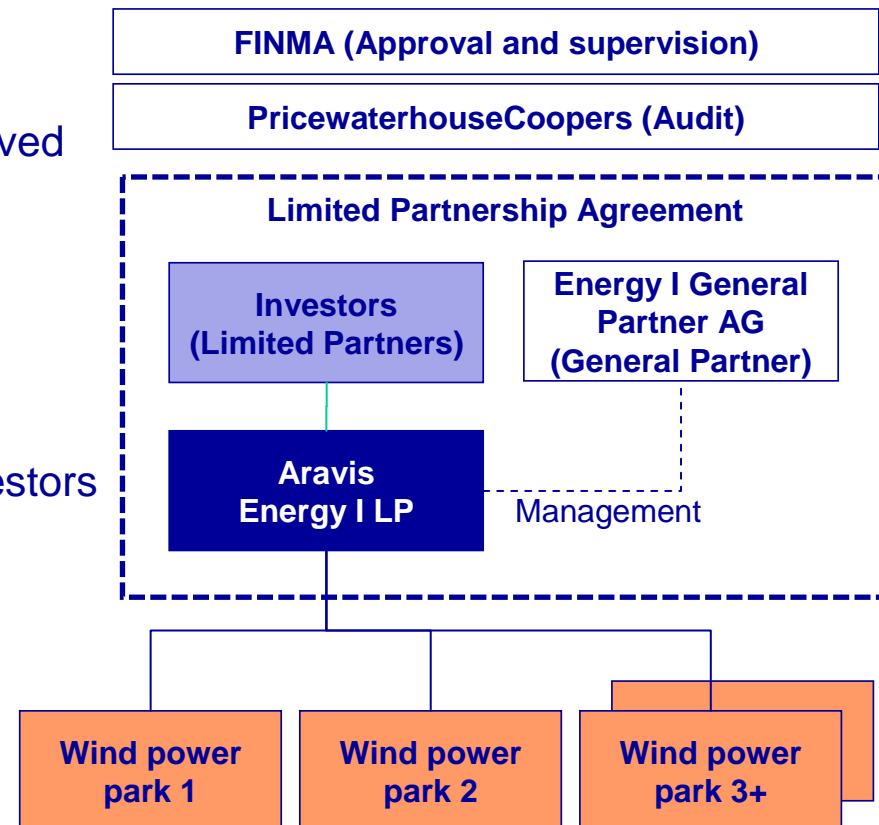
No tax risks and full tax-transparency for investors

Legal structure

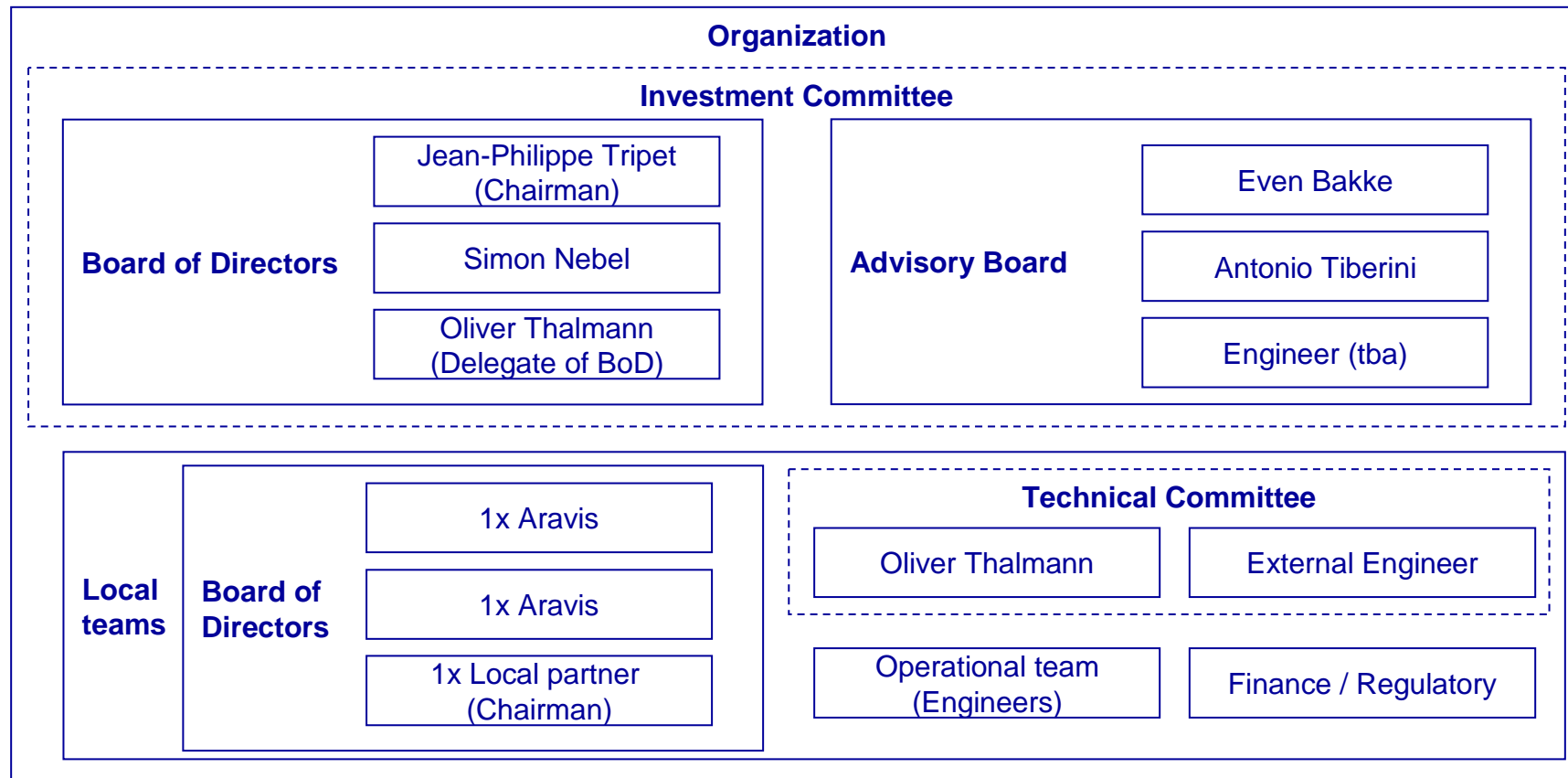
- 1st ever Swiss Limited Partnership approved by FINMA/EBK
- FINMA as supervisory authority

Tax

- Most tax efficient structure for Swiss investors
- Tax transparency
- Elimination of any tax risks
- No “offshore” issues (VAT, stamp duty, income tax, etc.) with Swiss tax authorities



Aravis Energy can rely on strong team and local partners



PART III – CONCLUSION

Investment summary

| | |
|----------------------------|---|
| Company name | Aravis Energy I LP, Kommanditgesellschaft für kollektive Kapitalanlagen |
| Investment focus | Renewable power generation (200 MW wind power) in Italy + 1 other country |
| Investment strategy | <ul style="list-style-type: none"> • Joint-venture with local companies • Control of power generating assets • Active board representation |
| Financing | EUR 100M Equity EUR 400M Debt |
| Legal structure | Switzerland (Swiss Limited Partnership) |
| Tax | Not tax subject, tax transparent for investors |
| Investment | Staged capital calls, ~20% per year over next 5 years |
| Distribution | Immediately after divestment/exit of wind parks |
| Management fee | First five years: 2.5%, then 1.5% |
| Estimated return | 2.8x – 3.4x multiple |

Key advantages for investors

| Key advantages | Investor perspective |
|-----------------------|---|
| Investment focus | <ul style="list-style-type: none"> • 100% green investment in cash flow generating assets • Participate in a long-term trend • Privileged and direct access to renewable power generating assets |
| Political environment | <ul style="list-style-type: none"> • Strong political backing in EU • Long-term guaranteed incentive scheme • EU long-term goals |
| Diversification | <ul style="list-style-type: none"> • True diversification investment • Un-correlated to financial markets • Inflation hedge? |
| Return and liquidity | <ul style="list-style-type: none"> • Wind hours predictable • High estimated return compensates for illiquidity • Investment is staged over 5 years |
| Legal | <ul style="list-style-type: none"> • Swiss law • FINMA supervision • No „offshore“ issues |
| Tax | <ul style="list-style-type: none"> • No taxes |

Contact

Aravis Energy I LP, Kommanditgesellschaft für kollektive Kapitalanlagen

Dr. Oliver Thalmann, CFA

Lehfrauenweg 10

CH-8053 Zürich

Email: oliver@aravis.ch

Phone: +41 (0)43 499 2000

Fax: +41 (0)43 499 2001

www.aravis.ch

ARAVIS – Group

Aravis at a glance

Aravis offers:

- Attractive investment vehicles in specific sectors for qualified investors
 - **Aravis Venture I, LP** (Biotech, Cayman Limited Partnership)
 - **Aravis Biotech II, LP** (Biotech, Cayman Limited Partnership)
 - **Aravis Energy I LP**, Kommanditgesellschaft für kollektive Kapitalanlagen (Renewable Energy, Swiss Limited Partnership)
- International team with industry and financial expertise
- Management with positive track record

For further information: www.aravis.ch

Management track record shows attractive performance

- **LO Immunology Fund (1995-2001)**
 - Best Fund performance over 5 year period*
- **Aravis Venture I, L.P. (2001-present day)**
 - Portfolio with 13 biotech companies (USA, Singapore, Switzerland, etc.)
 - 5 distributions up to now
- **Aravis Biotech II, L.P. (2007-present day)**
 - Portfolio with currently 4 biotech companies (Switzerland and Singapore)
 - Swiss and European focus with attractive pipeline

Top 50 Performance-Rangliste 5 Jahre (1996–2000)*

| Rang | Fondsname | Valoren-Nr. | Anbieter | Währung | Performance in %** |
|------|----------------------|-------------|----------------------|---------|--------------------|
| 1 | LO Immunology Fund | 495143 | Lombard Odier & Cie | USD | 420.23 |
| 2 | Pictet GSF Biotech I | 1090973 | Pictet & Cie. | USD | 408.82 |
| 3 | Pictet GSF Biotech P | 891431 | Pictet & Cie. | USD | 407.23 |
| 4 | Fidelity Eur.Sm.Co's | 37258 | Fidelity Investments | EUR | 310.81 |
| 5 | UBS (CH)EF-Scandinav | 279181 | UBS AG | USD | 303.80 |
| 6 | ABN AMRO Germany Eq. | 233532 | ABN AMRO Bank | DM | 302.82 |
| 7 | DWS (CH)-Aktien | 353197 | Deutsche Asset Mgmt | CHF | 291.51 |
| 8 | Fidelity Italy Fund | 601485 | Fidelity Investments | LIT | 288.44 |
| 9 | Fidelity Eur. Growth | 607512 | Fidelity Investments | EUR | 286.34 |
| 10 | CS EF(L)Italy | 349537 | Credit Suisse Group | EUR | 284.75 |
| 11 | Fidelity Nordic Fund | 601489 | Fidelity Investments | USD | 283.23 |
| 12 | BC America Fund | 549453 | Banco Bruuna | USD | 279.69 |

Source: Stocks, 26.01.2001

* Stocks, 26.01.2001

** Status: February 2007, Benchmark data from Cambridge Associates Ltd.

Contact

Aravis Energy I LP, Kommanditgesellschaft für kollektive Kapitalanlagen

Dr. Oliver Thalmann, CFA

Lehfrauenweg 10

CH-8053 Zürich

Email: oliver@aravis.ch

Phone: +41 (0)43 499 2000

Fax: +41 (0)43 499 2001

www.aravis.ch