



*Energy Opportunities in
Emerging Markets:
The Private Equity/VC Perspective*

Cleantech Forum XVIII
Washington, DC
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About EMPEA

Who We Are

Independent, global industry association

Our Mission

Promote greater understanding of and a more favorable climate for PE investing in: Africa, Asia, CEE and CIS, LatAm/Carib and the Middle East

Core Belief

PE/VC can be a critical driver of economic growth and simultaneously generate strong returns for investors

What We Do

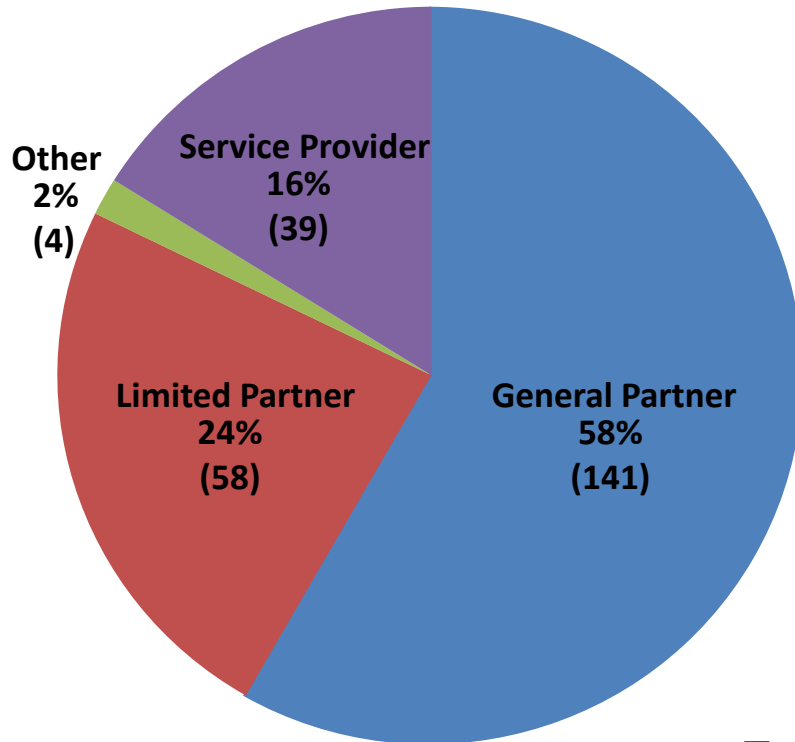
Research, analyze and disseminate global information on emerging markets private equity;
Convene meetings and conferences around the world to discuss cutting edge issues in EM PE; and
Support national and regional VC/PE associations to build friendly investment environment

Our Members

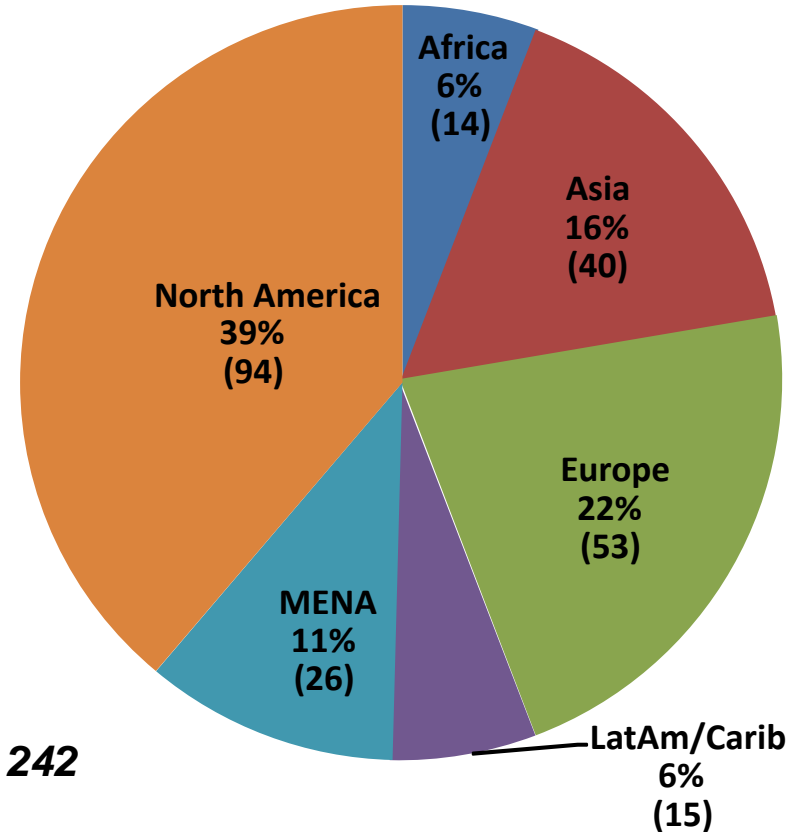
242 members represent 49 countries and nearly \$500b in AUM

EMPEA's members represent leading PE funds and institutional investors from across the developed and developing world

Membership Distribution by Firm Type



Membership Distribution by Regional HQ



Total Members: 242

Our membership spans 49 countries, including 35 in emerging markets, providing rich color on PE opportunities across the globe

Developed Markets	LatAm/Carib	Africa	Middle East	CEE and CIS	Asia
USA (86)	Brazil (13)	South Africa (7)	UAE (13)	Russia (5)	China (14)
UK (26)	Mexico (2)	Egypt (2)	Bahrain (2)	Ukraine (3)	India (9)
Canada (6)	Colombia (1)	Ghana (2)	Kuwait (2)	Turkey (2)	Singapore (6)
Switzerland (6)	US Virgin Islands (1)	Mauritius (2)	Jordan (1)	Kazakhstan (2)	Malaysia (2)
Netherlands (4)		Botswana (1)	Lebanon (1)	Poland (1)	Pakistan (2)
France (3)		Madagascar (1)	Saudi Arabia (1)	Slovenia (1)	Bangladesh (1)
Finland (2)		Morocco (1)		Azerbaijan (1)	Mongolia (1)
Germany (2)		Nigeria (1)			Philippines (1)
Austria (1)		Tunisia (1)			Vietnam (1)
Belgium (1)					
Italy (1)					
Japan (1)					
Luxembourg (1)					

EMPEA data indicates growing interest by PE players in cleantech investment opportunities in emerging markets

Brazil Funds

Brazil Equity Financing Facility
Clean Energy Brasil
Fundo Brasil Sustentabilidade
PTZ/Biomass Technology Fund I
Stratus Venture Capital Fund III

China Funds

China Clean Energy Capital
China Environment Fund III
China Environment Emerging Markets Fund
DT Ventures China Fund II
Green Private Equity Fund

Regional and Multiregional Funds

Clean Water Asia Fund (Pan-Asia)
Global Asia Clean Energy Services Fund, L.P. (Pan-Asia)
Central American Renewable Energy and Cleaner Production Facility (Central America)
EnerCap Power Fund (Emerging Europe)
Global Environment Emerging Markets Fund III (Pan-Emerging Markets)
Al Masdar Renewable Energy Fund (Middle East)

The 17 funds listed above alone have raised approximately \$1.2b to date

Brazil, India and China lead the emerging markets in recent PE investments and exits in the cleantech sector

Clean Energy Sub-Sectors of Interest to PE Managers

Brazil

- Target Sub-sectors: Bioethanol and wind (biomass)
- Recent PE investments:
 - Carlyle/Riverstone - \$240m in four ethanol mills
 - Clean Energy Brazil - \$130m for 49% of ethanol producer Usaciga
- Notable IPO: Cosan Ltd., Brazil's largest sugar ethanol producer raised \$1b on NYSE and Bovespa

India

- Target Sub-sectors: Wind, solar, energy efficiencies (mini-hydros), waste mgmt.
- Recent PE investments:
 - UTI Ventures - \$8m in PESCO BEAM Environmental (waste mgmt.) in 2008
 - Indivision - \$25m in wind turbine manufacturer Regen Powertech
- Notable IPO: Suzlon, a wind power company had a PE-backed IPO in 2005 oversubscribed 46 times

China

- Target Sub-sectors: Solar, watertech, wind, energy efficiencies (mini-hydros)
- Recent PE investment: Baring Asia and Chengwei Ventures' \$88m investment in methane producer AAGI – Asian American Gas
- Recent IPOs: Yingli Green Energy Holding Co., JA Solar Holdings Co., and LDK Solar (solar power firms)

Other Emerging Opportunities

Clean Energy Sub-Sectors of Interest to PE Managers

Mexico

Wind and biofuels

Poland

Coal-fired generation efficiencies, wind, biomass and biofuels

Thailand

Biomass and biofuels

Turkey

Geothermal and wind