



2006 U.S.-Africa Infrastructure Conference

Energy and Electrical Grids

A Private Investor's Perspective

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Summary

- Introduction to Aldwych
- The Hard Facts and Some Statistics
- Some Technology Options
- Decision Criteria for Private Sector Investors:
 - Progress since U.S.-Africa Business Summit, 2001



Who is Aldwych?

- British company established 2004 to develop, own and operate power businesses in (mainly) sub-Saharan Africa and South Asia
- Shareholders are FMO, private equity and management
- FMO is the Dutch development finance institution, with a strong focus on financing private sector infrastructure projects in Africa
- The Aldwych founders and management (many from AES) have:
 - extensive international power industry experience
 - successfully financed or re-financed 21 power projects worldwide, totalling ~14,500MW and ~US\$4.5bn, including four in Africa (1800MW and US\$500m)
 - managed electricity transmission and distribution utilities in Brazil, the Dominican Republic, Kazakhstan, Georgia and Cameroon



Why focus on Sub-Saharan Africa?

- “You can look at Africa and see a problem, or you can look at Africa and see an opportunity”
- To meet Millennium Development Goals for infrastructure, Africa needs US\$5-12 billion a year in additional finance*
- In 1990-2004 the region attracted just US\$2.6bn annually in total investment for infrastructure projects with private participation*
- Over 70% of this was in telecommunications
- Average rural electrification is 8%, urban 51%; population averages are 67% rural, 32% urban
- Africa’s population is set to double by 2030

* Source: World Bank, PPIAF May 2006



Problem or Opportunity?

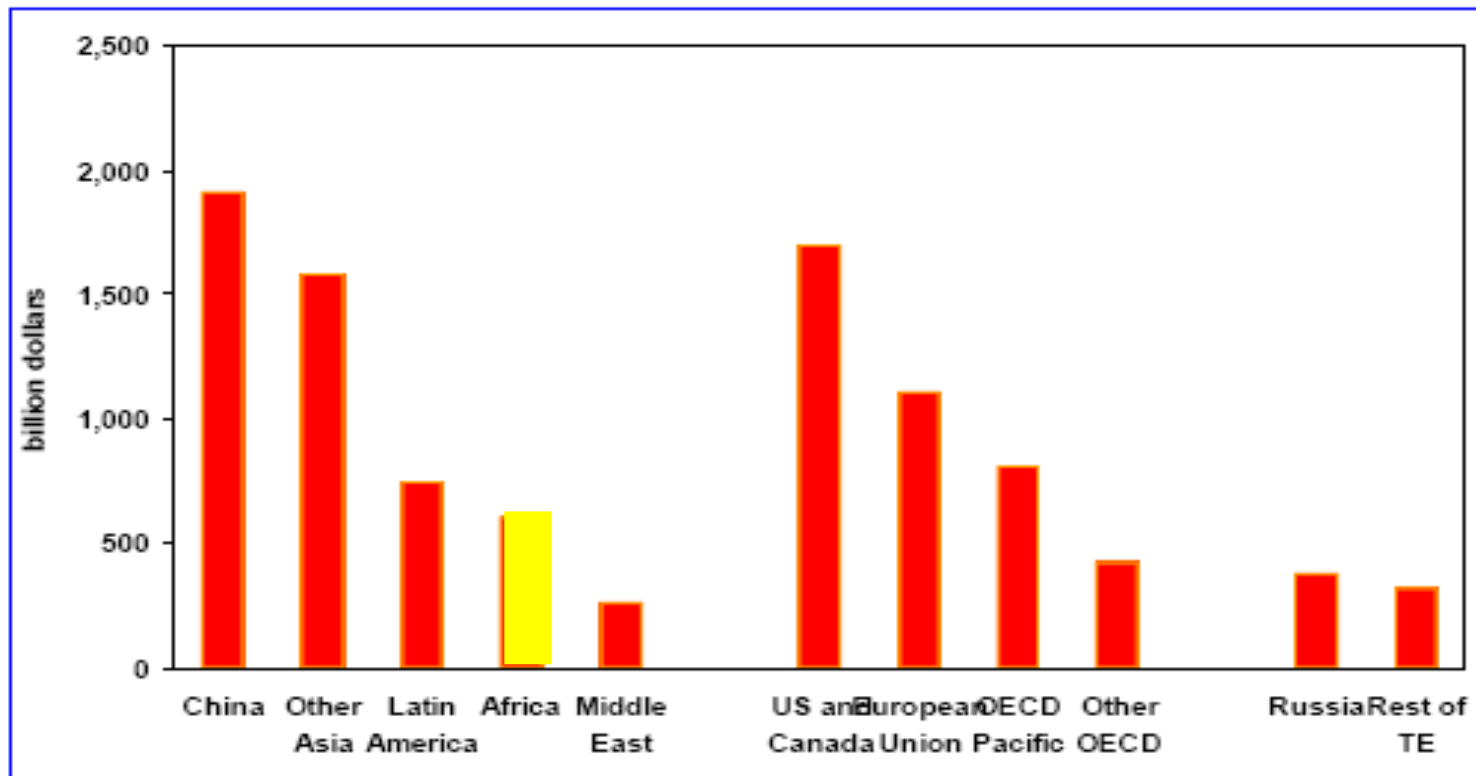
(Selected 2004 Indicators)

Continent/ country	Population (millions)	Electricity Consumption (kWh/capita)
North America	326	13,714
South Africa	46	4,976
Latin America	443	1,645
China	1,303	1,607
Asia (excl. China)	2,048	617
Africa (excl. RSA)	826	303
SSA*	516	120

*21 countries excl. RSA, stats not available for remainder

Source: IEA

Required Electricity Sector Investment by Region 2001-2030



Source: IEA

This is the so-called reference scenario, which still leaves 1.4bn people without electricity in 2030, mostly in South Asia and sub-Saharan Africa



Technology issues

- Technological imbalance renders SSA vulnerable
 - Hydro: very little of Africa's hydro potential has been developed
 - Oil: high oil prices cause economic hardship, while huge quantities of gas are flared
 - Coal: >90% of coal is in southern Africa and could readily be imported by coastal countries elsewhere
 - Biofuels/biomass: climatic conditions should render sustainable biomass a viable option in parts of Africa
 - Regional integration: large-scale integrated projects often make sense, but have proved difficult to implement, and need huge public/ODA financing
 - Nuclear: Africa has to make its case



The Private Developer's Criteria for Investment: Report Card Since 2001

<u>Criterion</u>	<u>Progress</u>
Political Stability	A
Sanctity of contracts	A
Financeable contracts	B
Management control	A
An industry structure that works	B
Transparent and independent regulation	B
Political commitment to reform	B
Cost-reflective tariffs	C



So why are more projects not happening?

- Post-Enron retrenchment: too few developers
- Challenges in former developers' home markets
- Slow pace of reform, especially tariff reform and restructuring of inefficient utilities
- High fuel costs limit public sector investment funds
- Private sector projects require return on equity; IPPs (especially capacity charge) are perceived as expensive, even if arguably more efficient
- Insistence on competitive tendering: not necessarily the best solution
- Short-term-ism: power planning and development require long-term vision at odds with political cycle



Conclusions

- GDP growth in Africa is insufficient to keep pace with population growth, and will only increase with investment in infrastructure
- At present rates of investment, the proportion of Africa's population with access to electricity will decline, not increase by 2030
- The investment climate is slowly improving
- Since 2001, some progress has been made by both the public and the private sector, but it has been sporadic
- The investment needs cannot be met by the public or the private sector alone: ODA will continue to be vital
- Fewer "emergency" projects and more long-term planning require political will
- A problem or an opportunity? Both!