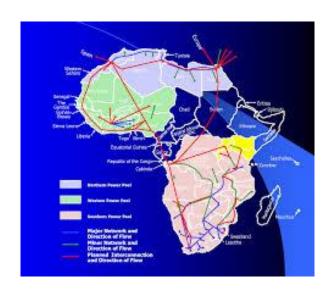
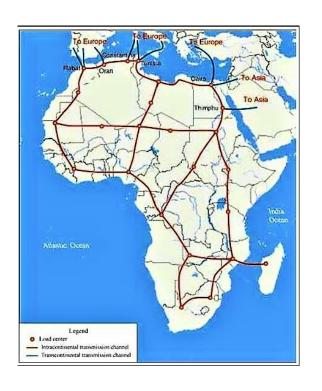
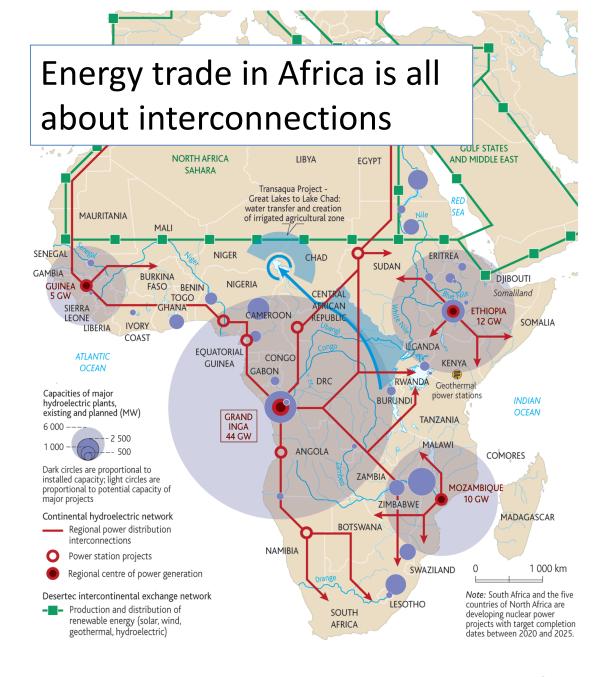
Cross-border economic regulation – issues and challenges 'stronger together' or 'build a wall'?

3rd ACER Conference Dar Es Salaam, 15 July 2017

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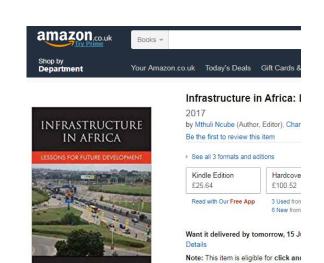






Opportunities for regional energy integration

- More than 90% of Africa's hydropower is yet to be exploited
 - DRC, Mozambique, Ethiopia, Kenya, Tanzania, and Zambia
- Wind energy opportunities
 - Kenya, Morocco and South Africa
- Solar opportunities
 - North Africa and South Africa
- Gas supplies in
 - East Africa (Tanzania, Mozambique)
- Associated gas supplies in
 - West Africa: Nigeria, Angola, Ghana;
- Shale gas potential in South Africa
- Coal supply in southern Africa



accessible water supplies, reliable all vital to a region's development a of infrastructure in Africa and provide

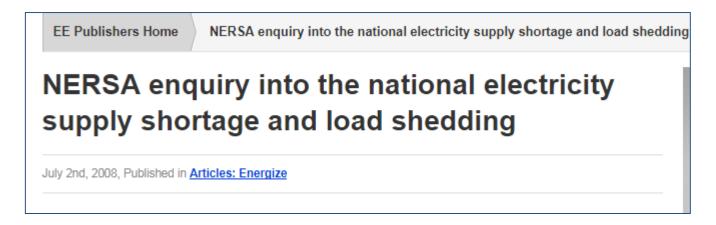
Policies, legislation and statements

"We are a water-constrained country, however not all of Africa is. The Congo River and its Inga Dam in the DRC provide a significant potential for energy. President Zuma recently signed a Memorandum of Understanding on the Grand Inga Hydroelectric Project with the President of the Democratic Republic of Congo. This project has an estimated capacity of 40 000MW which has the potential to change the African energy sector and it would significantly increase Africa generation capacity. This will enhance energy access to clean and efficient energy across the continent and contribute significantly towards a low carbon economy and economic development."

Minister Dipuo Peters, 2011

Tight reserve margins and load shedding in 2008







Also in 2008:



Mmegi/The Reporter (Gaborone) »

8 DECEMBER 2009

Botswana: Mmamabula Boost as Eskom Loses Power Monopoly

Tagged: Botswana • Business • Energy • Southern Africa

In a development that might give a boost to the Mmamabula energy project, the South African government has opened the door for independent power producers by announcing the National Integrated Resource Plan on Thursday.

The Department of Energy is drawing up the regulations that Eskom and the National Energy Regulator (Nersa) must follow.

Unfortunately, it did not end well...

NEWS FROM THE GLOBE AND MAIL

South Africa drags heels on Canadian bid to build power plant

By GEOFFREY YORK 00:00 EDT Tuesday, March 16, 2010 | Page <u>B1</u>

JOHANNESBURG -- As South Africa struggles with power shortages that could threaten its

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growth, Canadian coal miner CIC Energy Corp. has been baffled by its inability to get approval for a massive power plant that could supply the country with desperately needed electricity.

Canada's International Trade Minister, Peter Van Loan, is equally puzzled by the conundrum of CIC Energy's stalled project. And as he begins a visit to Africa this week, he plans to raise the question with South African officials when he meets them today.

ENGINEERING NEWS

http://www.engineeringnews.co.za/article/cic-energy-defers-some-work-at-mmamabula-cites-frustrating-regulatory-process-2009-12-15

CIC Energy defers some work at Mmamabula, cites 'frustrating' regulatory process

15TH DECEMBER 2009 BY: CREAMER MEDIA REPORTER



IC Energy has deferred certain financial, legal and engineering activities related to the Mmamabula energy project, in Botswana, with the company's decision driven by the South African government's development time-line for its energy sector integrated resource plan.

In a statement released on Monday, CIC Energy president **Greg Kinross** referred to the "slow pace of the regulatory process in South Africa" as "frustrating".

Reluctance to import

Despite the opportunity to import electricity, which could contribute to South Africa's energy supply, many problems have been cited

- Limits on imports: up to your reserve margins
- Can't have 'unbridled' trade
- Gas in Mozambique is controlled by foreign players
- Risk of renewed conflict in Mozambique and other African countries

 Others have cited the following problems with Inga for instance
- The power will traverse some 2 800km via several countries, which is risky
- The project is likely likely to cost more than R25-million a megawatt
- Lead-time to commissioning is around 10 years,
- many political and socioeconomic factors in countries such as the DRC,
 Angola, Namibia, Botswana and Zimbabwe.
- the risk with imported hydropower is "if there are civil wars, supply will be disrupted."

Putting the plan where our mouth is?

- Integrated Resource Plan of 2010/11
 - sets out a diversification of sources of fuel by 2030.
 - the future power mix will derive 12% from base-load imported hydropower.
- Draft Revised Integrated Resource Plan, 2016
 - Only imports: Cahorra Bassa hydro, 1500 MW
 - Transmission plan is a national one
 - Screening curves determine technologies, no mention of location of those plants outside South Africa

The barriers to energy imports

- Technical
 - requires investment in transmission lines, covering line losses and requires transit/wheeling rights
- Geopolitical concerns
- Funding and affordability
- System stability

But also:

 Nationalism, bad blood, Legacy of sanctions and a laager mentality

And most importantly:

- National planning focus
- SOCs once again jewels in the crown for many countries
- Stalled reforms and unbundling

Regulators face many unresolved cross border issues in their mandate

NERSA faces issues arising from the Rompco pipeline

- Tariff and the agreements were set in stone
- Predate the Gas Act but binding on the regulator
- Then capacity was expanded and investments
 made how is the RAB value allocated?
- Jurisdiction: Can NERSA set a tariff in Mozambique? Or for assets located in Mozambique?
- How are taxes treated, etc

What can regulators do?

- Regulatory initiatives to assist in making us stronger together
 - Internationalise national resource planning, supporting SAPP
 - Transparency of every regulator's rules regarding trade and cross-border projects (release an FAQ if need be)
 - Harmonisation of tariff approaches to facilitate cross-border projects
 - Wheeling charges to avoid pancaking of tariffs
 - Equitable sharing of costs and rewards in cross border projects where one country supplies and receives little other benefit
 - Provide clarity regarding the regulatory treatment of the RAB
 - Develop and enforce third party access without discrimination rules

So in summary

Don't build walls. Build interconnectors. Or ladders.

"Look at this schematic I downloaded from the dark web. It's a ladder Einstein.

You are going to build a 25 bln USD wall that can be defeated by a 25 USD ladder?"

Vicente Fox, former president of Mexico YouTube 2017 https://youtu.be/iYZKrn7Bbl8