



# SITING AS A (NEO)COLONIAL PROJECT

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Governing nuclear waste conference, FFU,

# SOUTH AFRICA'S NUCLEAR HISTORY



# GLOBAL NUCLEAR INTEGRATION

- ▶ Post-Manhattan global search by US & UK for Uranium
- ▶ SA found to have rich deposits as a by-product of gold mining
- ▶ Atomic Energy Board established in 1948, same year as apartheid
- ▶ Under US Atoms for Peace a research reactor was provided



# MILITARISATION

- ▶ Training of SA scientists in US, UK, W Germany & contact with Israel
- ▶ By 1970, an enrichment programme was initiated
- ▶ By 1978, SA began to manufacture weapons of mass destruction
- ▶ By 1984, two power reactors began to operate outside Cape Town
- ▶ In 1990, the weapons programme was dismantled





# NUCLEAR RESEARCH @ PELINDABA



# “RADIATION HILL” AND OTHER SITES



# NUCLEAR ENERGY @ KOEBERG





# NUCLEAR WASTE @ VAALPUTS IN NAMAQUALAND



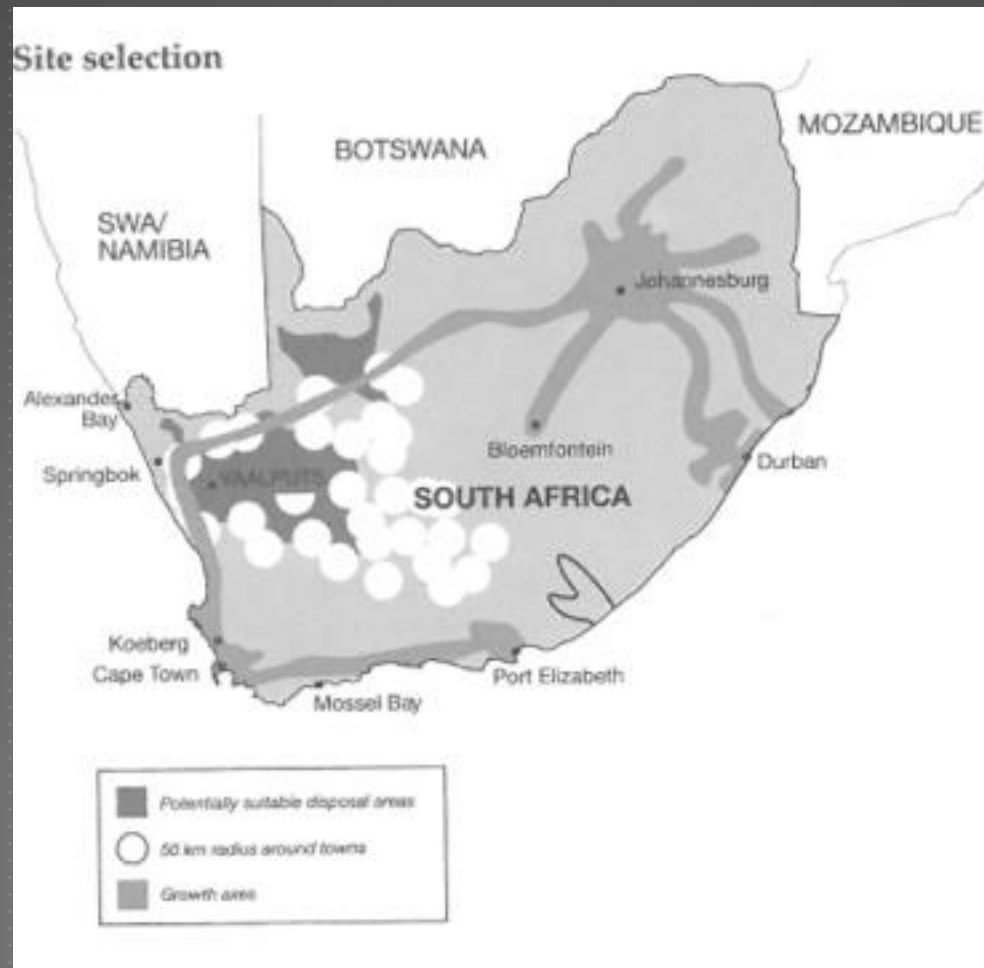


# PURPOSE OF VAALPUTS

1985 ----Search on for a shallow disposal site for low- and intermediate-level wastes mainly from Koeberg reactors.



# SITING HISTORY OF VAALPUS



# NAMA PEOPLE LIVED WITHIN 24KM





# HIGH LEVEL WASTES

1. WET STORAGE ON SITE AT KOEBERG SINCE 1984
2. PONDS HAVE TO BE RE-RACKED AS THERE IS NO OTHER LONG TERM SOLUTION
3. DRY STORAGE IN CASTOR X/28-F CASKS ABOVE GROUND AT THE KOEBERG SITE.



# RADIOACTIVE TAILINGS DAMS



# NUCLEAR RELATED ACTIVITIES

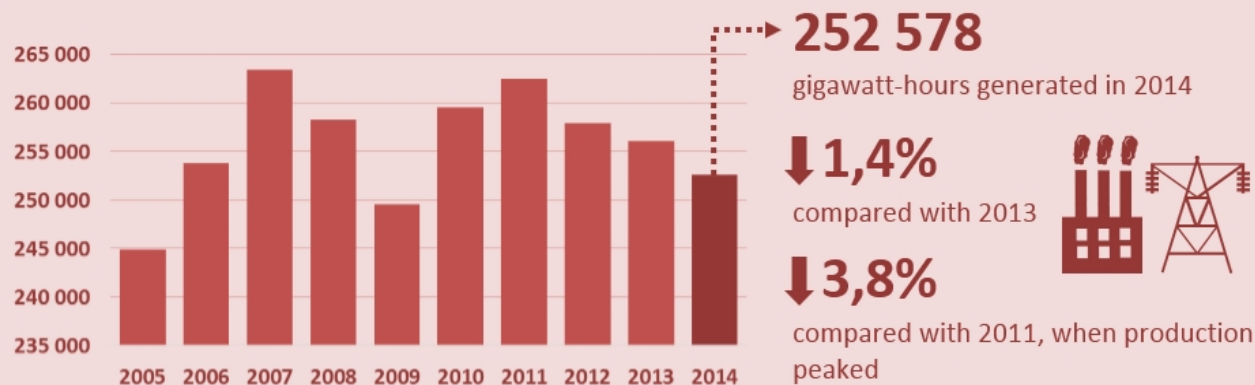
- ▶ Pelindaba
- ▶ Witwatersrand
- ▶ Vastrap
- ▶ Vaalputs
- ▶ Uranium exploration
- ▶ Thyspunt
- ▶ Koeberg
- ▶ Bantamsklip





# Electricity produced and consumed in South Africa: 2014

## ELECTRICITY PRODUCED IN 2014

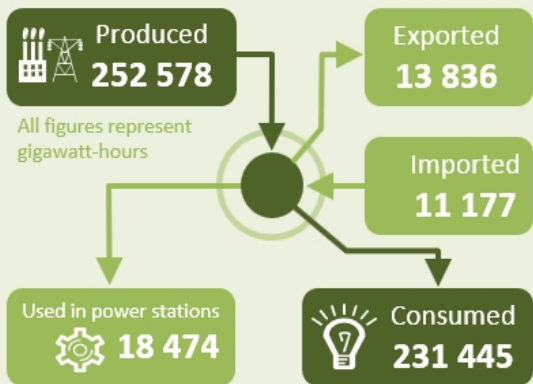


## WHO PRODUCED ELECTRICITY?



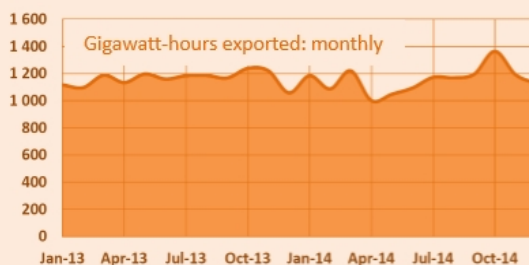
Eskom produced 95% of all electricity in 2014

## ELECTRICITY CONSUMED IN 2014



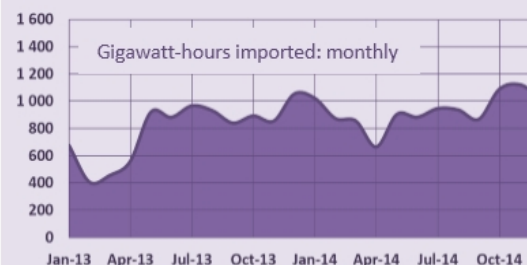
## ELECTRICITY EXPORTED

↓ **0,7%** in the amount of electricity  
exported in 2014, compared with 2013



## ELECTRICITY IMPORTED

↑ **18,6%** in the amount of electricity  
imported in 2014, compared with 2013



Electricity generated and available for distribution, December 2014 <http://www.statssa.gov.za>

# SOUTH AFRICA @ A CROSSROADS

- ▶ Today 1 844MW of nuclear
  - = 2 reactors
  - = 5% of electricity
- ▶ Add a further 9 600MW of nuclear?
  - = 6-8 extra reactors
  - = 12% of electricity

# BALANCE OF FORCES

## PROMOTING

- ▶ President & entourage
- ▶ Department of Energy
- ▶ Nuclear lobby & beneficiaries

## OPPOSING

- ▶ Environmental justice groups
- ▶ Faith-based organizations
- ▶ Trade unions
- ▶ Affected communities
- ▶ Opposition political parties
- ▶ Energy Intensive User Group
- ▶ Manufacturers' Circle
- ▶ Chambers of Commerce, NBI
- ▶ Financial press
- ▶ University & other researchers
- ▶ National Development Plan
- ▶ CSIR





# REASONS FOR PRESIDENT'S SUPPORT

WHY, DESPITE THE LOGICAL CASE OF THE ANTI-NUCLEAR FORCES DOES THE PRESIDENT PERSIST IN GOING AHEAD?

- ▶ Patronage networks
- ▶ Cronyism
- ▶ Legacy issues
- ▶ Geo-politics



# GEO-POLITICS

- Preferential support for giving Russia the business
- Zuma close to Putin
- Using spaces like BRICS and G20 to reinforce relationships



## MEMORANDA OF UNDERSTANDING WITH VENDOR STATES

SA is choosing suppliers  
from:

China (*China Guangdong*),  
France (*Areva*),  
Japan/US  
(*Toshiba/Westinghouse*),  
Russia (*Rosatom*) and  
South Korea (*KEPCO*).

MoUs usually speak about  
co-operation, and do not  
contain contractual  
information





# THE AGREEMENT WITH RUSSIA

- Kept secret
- Russia first announced it had the contract for the new build in SA
- It later retracted, as did South Africa
- Eco-Defence, a Russian NGO, found the document on the website of Russia's foreign ministry and made it available
- It confirmed that Russia would be granted the contract, and control over the whole nuclear fuel chain in SA, without having any liability
- **Because it contains contractual information, the MoU is technically illegal**

**СОГЛАШЕНИЕ**  
**между Правительством Российской Федерации**  
**и Правительством Южно-Африканской Республики**  
**о стратегическом партнерстве и сотрудничестве**  
**в области атомной энергетики и промышленности**

Правительство Российской Федерации и Правительство Южно-Африканской Республики, в дальнейшем совместно именуемые Сторонами и отдельно Стороной,

признавая, что оба государства являются членами Международного агентства по атомной энергии (далее – МАГАТЭ), участниками Группы ядерных поставщиков и Договора о нераспространении ядерного оружия от 1 июля 1968 г.,

руководствуясь Соглашением между Правительством Российской Федерации и Правительством Южно-Африканской Республики о сотрудничестве в области мирного использования атомной энергии от 20 ноября 2004 г.,

учитывая намерения Южно-Африканской Стороны по реализации масштабного плана развития национальной энергетики, предусматривающего сооружение до 2030 года новых энергоблоков атомных электростанций (далее – АЭС) в Южно-Африканской Республике,

отмечая права и обязанности Сторон по Соглашению между Правительством Российской Федерации и Правительством Южно-Африканской Республики о поощрении и взаимной защите капиталовложений от 28 ноября 1998 г.,

ссылаясь на Совместную декларацию об установлении всеобъемлющего стратегического партнерства между Российской Федерацией и Южно-Африканской Республикой от 26 марта 2013 г.,

стремясь к дальнейшему расширению и углублению взаимовыгодного экономического и научно-технического сотрудничества между Российской Федерацией и Южно-Африканской Республикой в области атомной энергии и промышленности в мирных целях на основе равенства, невмешательства во внутренние дела и уважения суверенитета обоих государств,

исходя из убеждения, что договорно-правовое закрепление стратегического партнерства в области атомной энергетики и промышленности будет способствовать развитию сотрудничества на других направлениях между Российской Федерацией и Южно-Африканской Республикой,

согласились о нижеследующем:

# LITIGATION

- ▶ In October 2015, the SA Faith Communities Environment Institute and Earthlife Africa instituted a court case against the state for the agreements signed with Russia, USA and South Korea.
- ▶ In addition the NGOs are accusing the state of not ensuring that nuclear procurement demonstrates the constitutional requirements for fairness, equity, transparency, competitiveness and cost-effectiveness.






# WHEN WILL PROCUREMENT OCCUR?

- ▶ Government made several announcements that procurement would happen in 2015.
- ▶ The Treasury in its 2015 mini-budget granted the Department of Energy R200 million for preparing the procurement.
- ▶ Cabinet in December 2015 announced it agrees to initiate the procurement, but its decision is being challenged as illegal.
- ▶ The EIA for the first site at Thyspunt is almost complete, but the technology has not yet been chosen!
- ▶ The 2016 Budget statement allocated nothing to the procurement process.
- ▶ Minister of Finance Pravin Gordhan feels that procurement will not take place for at least the next three years.
- ▶ Minister of Energy Tina Joemat-Pettersen has announced it will begin on 30 September 2016

# MEANWHILE...

- ▶ In less than five years, the state has commissioned 5 243MW of new renewable energy in the first four rounds of public bidding.
  - ▶ R168 billion has been invested by the private sector in 79 projects.
  - ▶ Over 1 800MW of the total is currently being generated.
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# WHAT NEXT?

- ▶ Galvanising those opposed is a challenge
  - ▶ Zuma legacy issue & possibilities for patronage
  - ▶ Can Treasury veto the project on costs alone?
  - ▶ Will litigation slow down state ambitions?
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# THANK YOU!

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