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# Submission to energy planning

**AIDC:**

**DEVELOPMENT**

requires phasing out coal,  
and all fossil fuel subsidies

to **prioritise universal access to electricity**  
**no later than 2025**

Presentation by R Worthington on behalf of AIDC  
January 2017



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## **Issues that must not be ignored by energy planning processes:**

- Access for all to energy services, resources and infrastructure;  
with participation in equitable governance.
- Opportunities for more participatory access to energy with decentralisation should be explicitly addressed in Local Integrated Development Planning, with some linkage established with IRP including grid planning.
- Employment potential of renewable energy is clear in big-picture analysis and international literature/trends
- As a member of the G20 South Africa has committed to phase out public support to fossil fuels no later than 2025.



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For integrated planning to have practical value...  
- key challenge for useful planning:

... must explore opportunities and risks not well covered by on-going energy development and investment plans: **if** DoE work on IEP and IRP does not **interrogate alternative strategies and opportunities** for government to direct investment for net social value over time, **then** it offers nothing more than a legitimising framework for vested interests.

Key requirements for exercising government's responsibility to the people:

- Clear and inclusive process with real interaction and accountability;
- Full disclosure – serving as a platform for greater transparency and increasing information available in the public domain;
- Comprehensive: Addressing everybody's energy service needs;
- **Providing for public interests to carry weight in the prioritisation of outcomes and objectives.**



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IRP & IEP currently assuming no real / decisive transition  
- only incremental change, however

Electricity supply systems are undergoing paradigm shift, with potential utility 'death spiral' a threat to public infrastructure, and to equitable access at the periphery of a centralised system – **need to assay all electricity needs.**

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There is no consideration of modal shifts between energy carriers and expanding the coverage/role of electricity.

-  
It is not clear how grid-expansion plans and budget [R160 billion ?] will be integrated with new capacity / supply planning.

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**Solar PV cost decline** should be a 'game-changer' not only for grid-based and commercial supply, but also for accelerating **universal access to electricity and creating climate jobs.**



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“access” - IRP or IEP? or failing in between?

2013 Household Strategy identifies ~3 million households without electricity – a quarter of South Africans?

- ~R 150 million from SA Budget annually for off-grid access to electricity (plus donor/ODA funds)
- ~R20 billion for Free Basic Electricity from coal...

Integrated planning has to be inclusive

a generation build schedule  $\neq$  an electricity supply strategy

&

~7 % of total primary energy & >15% of energy at end-use is “traditional biomass”, much not sustainably harvested

– this merits high-level planning, not pilot projects, but programmes

# DEA Research: Aitken et al, **SUSTAINABILITY OF DECENTRALISED RENEWABLE ENERGY SYSTEMS**

(page 20) “From an economic perspective, it is clear that the off-grid programme is already a least-cost economic solution for the country, and system sizes could be expanded even more to include refrigerators and still represent a lower economic life-cycle cost than grid expansions.”

(page 74) “If the DoE is to expect the off-grid sector to make a meaningful contribution to the goal of universal access, a dedicated off-grid management authority... is required<sup>99</sup>. This authority should have the mandate to facilitate, contract and manage DRET programmes...

<sup>99</sup> This is already underway, approved by the DoE. It will be up and running by April 2016. It does not require legislation as it will be housed within an existing SoE and it already has a budget of 130 million, based on existing contributions to the SHS programme.”



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# Need a **NEW** Household Energy Strategy

## National Development Plan - NDP:

**“The energy sector: Empowering South Africa**

- **Social equity... targeted and sustainable subsidies...”**

### AIDC:

- FBE – free basic electricity – with **fossil fuel subsidy reform**
- Climate jobs for universal energy access
- Scale up and power up solar home systems (400W<sub>e</sub>)



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**CAFOD**  
Just one world



impacts of coal well documented, inter alia  
**Overseas Development Institute (ODI)**



**VASUDHA  
FOUNDATION**  
Green ways to good earth



ODI (2016): *Beyond coal: scaling up clean energy to fight poverty* –  
position paper - key messages:

**1. More coal will not end energy poverty**

(not cost-effective for extending access);

**2. Coal is given too much credit for reduction of extreme poverty**

(e.g. China);

**3. Better energy options exist to lift people out of income poverty**

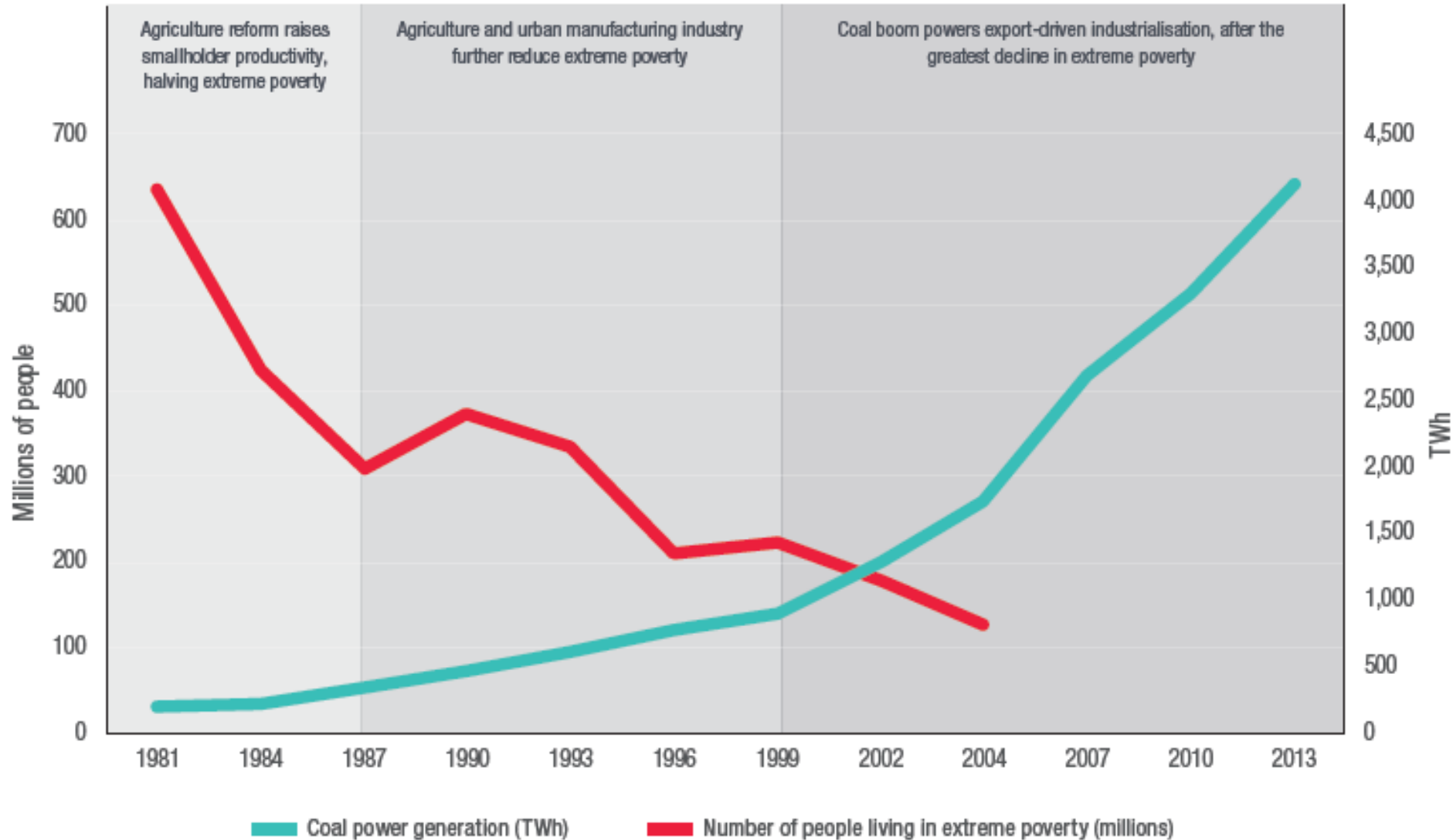
(incl. employment, in 2015: 9.4 million **RE jobs** vs 7 million in coal industry);

**4. More coal will entrench poverty**

(through direct local impacts and climate change impacts);

# Overseas Development Institute (2016)

Figure 3: China's extreme poverty plunged before coal power was ramped up







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# Below 2 degrees is a pre-condition for sustainable development

**Energy planning to 2050 must consider:**

**the phase-out of coal**, most rapidly in the power sector – should be a policy objective of this Integrated Resource Planning, including assessing the costs and co-benefits of different time-frames;

**electricity replacing liquid fuels**, and potential for liquid fuel production from renewable energy, incl. via hydrogen and biofuels regionally

Transition cannot be avoided and procrastination increases costs and risks...



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# Below 2 degrees is a national commitment for all departments

In the absence of sectoral medium- and long-term Desired Emissions Reduction Outcomes (DEROs for 2030 and 2050), the global goal in the Paris Agreement is the most relevant and appropriate benchmark for energy planning – reference to work on 5-year carbon budgets by the DEA is avoidance.

AIDC, supported by over a dozen organisations, has lodged a complaint with the Public Protector regarding failure of the Inter-Ministerial committee to ensure implementation of NCCRP (2011) – such failure doesn't neutralise the DoE or Energy Act (2008)

Transition offers opportunities to reduce inequality and unemployment through localised energy development and requires full-cost accounting of social value...



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# Social ownership of electricity supply is a core element of energy democracy and a robust modern energy system

**Eskom** – a corporation that sees no distinction between its own interests and those of the nation and people

**DoE** - should be the peoples' champion, including for advancing social ownership within a Household Energy Strategy for universal access to electricity - a target of 3 million households have minimum  $400W_e$  of solar PV within 10 years

IEP and IRP documents indicate that DoE is not addressing the potential for or institutional challenges of universal access and lacks capacity or interest to implement at scale



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# Conclusion

- **Solar PV** cost decline should be a 'game-changer' not only for grid-based and commercial supply, but also for accelerating **universal access to electricity and creating climate jobs**.
- **SA must start planning the winding down of the coal industry**, most immediately in the power sector and liquid fuels, with training and just transition for coal workers and affected communities;
- IRP must enable local development planning (LIDP) to address energy services and equitable access to resources and infrastructure.
- **Integrated planning must provide for public interests to carry decisive weight in the prioritisation of outcomes and objectives.**