

South Africa My2050 Calculator

2050 Calculator Conference
10 February 2015



Climate Change and Air Quality



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Outline

- Designing the My2050 for the South African context
- Our strategy for rolling out the My2050
- Lessons learned



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Relevancy of My2050 to South Africa

The South African Climate Change Response White Paper (2009) calls for:

- Education, awareness and outreach of climate change related information
- Inclusion of climate change into formal education curricula
- Integrating climate change into the National Skills Development Strategy

Note: Climate change is a relatively new issue in South Africa. It requires systematic interventions to empower and capacitate the people of SA.



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Contextualizing South Africa

Our goal is to have as much a reach into South African schools as possible, but the challenges are:

- Internet accessibility
- Internet quality
- Limited teacher's background knowledge in energy and climate change



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SA My2050 Design Characteristics

- Minimised bandwidth needs : Simplified graphics
- Maximised learning by making it interesting for kids: e.g. Sound effects, Visually friendly using bright colours, Use of motion



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SA My2050 Design Characteristics

– Maximised accessibility

- Designed for open access web browsers (Chrome and Firefox)
- Balanced the amount of detail so that it is still educational, but functional on a smartphone
- Minimised bandwidth demand
- A non-digital version was envisioned from the initial design
- Currently looking into creating a CD version



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SA My2050 Design Characteristics

The levers are in the format of playing cards to be able to have a non-digital version.

Hydro 1 **Choose Level 1**

In this scenario, the amount of electricity generated from hydropower remains at almost the same level as today at 2185 MW. There is a slight increase as new smaller plants come online that are currently being constructed.

- Did you know that about 1,500 MW of hydropower comes from Cahora Bassa station in Mozambique? Did you know there are plans to develop 14 MW of additional hydropower in South Africa by 2015?

Hydro 2 **Choose Level 2**

The capacity of hydropower grows to meet government plans by 2025 and increases to a capacity of 7,402 MW by 2050.

- Did you know that about 1,500 MW of hydropower comes from Cahora Bassa station in Mozambique? Did you know there are plans to develop 14 MW of additional hydropower in South Africa by 2015?

Hydro 3 **Choose Level 3**

The hydroelectric power that is bought from outside South Africa is increased greatly. The total capacity by 2050 is 9132 MW by 2050.

- Did you know that about 1,500 MW of hydropower comes from Cahora Bassa station in Mozambique? Did you know there are plans to develop 14 MW of additional hydropower in South Africa by 2015?

Hydro 4 **Choose Level 4**

Rapid development of hydroelectric power development outside South Africa takes place. The total available hydroelectric capacity by 2050 is 16,080 MW in 2050.

- Did you know that about 1,500 MW of hydropower comes from Cahora Bassa station in Mozambique? Did you know there are plans to develop 14 MW of additional hydropower in South Africa by 2015?



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SA My2050 Rollout

- The SA MY2050 Calculator is a starting point to learn about low carbon choices for both adults and youth.
 - Currently we are focusing on the integration into the school curriculum and extra-curricular initiatives



SA My2050 Rollout (cont'd)

- Through our environmental education programme section we have access to:
 - the national network of researchers, regulators and education implementers
 - The formal channels to introduce the tool across the school system
 - And extra-curricular initiatives



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SA My2050 Rollout (cont'd)

Extra-curricular example:

- Delta Environmental Centre runs an annual energy competition in schools.
 - The student teams develop and implement an energy savings initiative.
 - An added requirement is to explain the connect the impact of their project to the national energy system
 - The My2050 Calculator is a resource:
 - To stimulate ideas of energy savings activities
 - To help to understand the linkage to the national energy system and to understand the impact of their choices on the environment

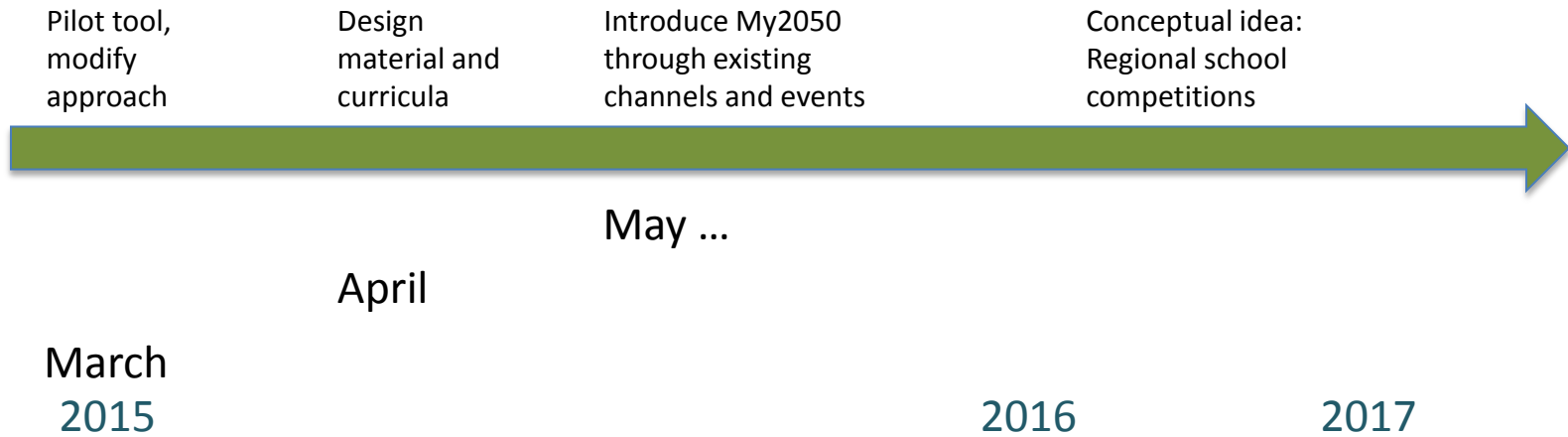


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SA My2050 Rollout (cont'd)



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Lessons learned

- We are not educators, but we found the right experts to guide us (e.g. Fundisa For Change, education NGOs, etc.)
- Partnerships! Improving successes of both parties and maximising resources
- For successful partnerships its important to have objectives that are aligned



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