



Existing Legal and Regulatory Framework for Renewable Energies in Zambia

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What Regulates Renewables in Zambia?

- The Law
 - Energy Regulation Act of 1995, Chapter 436 of the Laws of Zambia
 - Electricity Act Chapter 433 of the Laws of Zambia.
- The institutions
 - Policy formulation is by the Ministry of Energy and Water Development.
 - Regulation is by the ERB
- What is regulated?
 - S.2 of the Act defines what sources of energy are to be regulated, hydro, coal, petroleum, solar, nuclear & more recently bio-fuel
 - SI 42 of 2008 included Bio-fuels as a form of energy.

What are renewable energy in Zambia?

The Renewable Energy Strategy for Zambia 2010 lists renewable energy sources as;

- **Solar**
- **Small Hydro Power (Mini Hydro)**
- **Biomass**
- **Energy crops**
- **Wind Energy and**
- **Geothermal.**

Regulatory frameworks for Solar and Bio-fuels are far more developed. For solar its already in operation.

Licensing Regime

- ❑ Light handed regulatory approach is being used.
 - ❑ Only solar sector has reached level of operation.
 - ❑ No licence fee charged to promote sector.
 - ❑ The licensee is authorised to engage in the manufacture, supply, installation and maintenance of solar systems.
 - ❑ Licence conditions issued with each licence.
 - ❑ Prior to the issuance of the licence the applicant must have
 - A demonstration unit set up for customers
 - Workshop and storage facility
 - Trained technical staff
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Technical Standards for Solar

- ERB together with Zambia Bureau of Standards developed 4 stds;
 - ZS 403 – Batteries for photovoltaic (PV)systems
 - ZS 404 – Charge regulators
 - ZS 406 – Photovoltaic Modules – Spec
 - ZS 407 – Fluorescent lights for PV systems

Future Developments

- ❑ There are currently 17 licence holders with 14 pending approval. Plans are to increase to 50 by end of 2011 as there a lot of unlicensed operators
- ❑ Gradual tightening of light handed approach at the request of the licensed operators (enforcement).
- ❑ Inquiries from a few investors who want to set up utility companies based on solar power
 - Feed in tariffs currently being considered

Bio-Fuels

- ☐ Bio-fuels recognised in the law as a source of energy in 2008
 - ☐ ERB developed Bio-fuel technical standards for Automotive Bio-diesel (ZS 702) and Bio-ethanol (ZS 706) in 2008. No blending ratios set yet by Gov.
 - ☐ Bio-fuels Regulatory process started in 2009 with stakeholder consultations. Draft Framework was ready in 2010 has been submitted to Gov. for policy pronouncement in March 2011.
 - ☐ ERB has recommended 2% bio-diesel and 5% bio-ethanol blend but is up to Gov to declare.
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Bio-fuels continued

- Although regulatory framework has not yet been launched the following is already happening;
 - Bio-fuel Association established 3 years ago.
 - Farmers are planting jatropha plantations, although not on a large scale.
 - Proof of concept programs are already under way by the private sector – bio-diesel production for own use.
 - A few small scale bio-diesel processing plants already in operations (data on production levels not yet available).
 - There are three (3) sugar producing companies with the capacity to produce ethanol from molasses. The largest of these has been participating in the discussions for development of the regulatory framework.
 - In February 2011 Gov with support from Gov of Brazil launched a feasibility study for Bio-fuels
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Current state of development of other renewable energies

- ❑ Mini-hydros being promoted by Zambia Development Agency & is receiving a lot of interest from investors.
- ❑ Bio-mass gasification pilot project has stalled after power utility announced it would extend grid to the area. Only small unit at a training facility remains.
- ❑ Gov is encouraging energy crops that don't compete with food crops e.g. jatropha for bio-diesel and molasses for ethanol. Only 14% of 42 million Ha of arable land in use for all agricultural activities.
- ❑ Wind-Previous studies led to the conclusion wind energy is not viable in Zambia, but with changing technology Ministry is planning to commission new studies with different TORs
- ❑ Geothermal – One project is scheduled to be restarted in 2012 at the Kapishya hot spring.

Policy Draft or Changes

- ❑ Feed-in tariffs for electricity produced by solar to be prepared in 2012
- ❑ Government plans to announce blending rations for bio-ethanol and bio-diesel in 2012 (no indications as to what the ratios will be yet)
- ❑ Regulatory framework for bio-fuel to be operationalised in 2012
- ❑ Blending rations of E100 & B100 by 2030
- ❑ New Dept in ERB dedicated to renewable energy was set up in Dec 2010 as part of mainstreaming efforts.
- ❑ In July 2011 ERB will be hosting the 1st even National Renewable Energy Forum as part of mainstreaming renewables.