

Energy poverty (comparison of 1996 and 2011)	
Indicator group:	Socio-Economic
Indicator	I_005
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#### **Description:**

There is a range of different ways in which energy poverty is defined. Definitions also depend on the context. In general when reviewing a range of views, energy poverty can be defined *as a lack of access to modern energy services*. It also refers to the situation where people are unable to afford modern energy services for basic needs such as cooking, heating and lighting (Practical Action, 2015) and are resorting to more pollution and unhealthy forms of energy. Some also refer particularly to those at or under the poverty line as they represent the portion of the population with little or inadequate resources which often also spend a larger part of their income on energy (Energypedia. 2015). In addition the main use of energy in developing contexts is for cooking, heating and lighting (IEA, 2006).

Indicator:	Energy poverty - 2011
Geographic coverage:	South Africa
Unit type:	Sub-place
Time period:	2011 (single period)
Source:	CSIR BE produces the processed tables and maps at sub place scale
Origin (if processed):	Census, 2011.
Date published:	Aug 2015
Update(s)/version:	No update
Background:	Energy poverty refers to a situation where a household does not have access or cannot afford to have the basic energy or energy services to achieve day to day living requirements.
Statistical and methodological information:	<ul> <li>In this case several items had to be taken into account when defining a measure to indicate energy poverty. These included the following: <ul> <li>Low income population – As energy poverty is normally associated with low income households or households in poverty this was the first item to be considered. Using the 2011 census all households earning less than R76400 per year was selected. Although the poverty line is lower than this level it falls into the income category R38201-R76400</li> <li>Households using Gas, Paraffin, Wood, Coal and animal dung for cooking</li> </ul> </li> </ul>

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- Households using Gas, Paraffin, Wood, Coal and animal dung for heating Households using Gas, Paraffin, Candles for lighting
- Also considering density of households per Ha to leave out areas with little or no households given that the focus should be on settlements and communities.

Using these variables selection were made of the items using the following proportions

- Density greater than 0.01 households per Hectare
- Where the percentage of households using Gas, Paraffin, Wood, Coal and animal dung for cooking is greater than 30%
- Where the percentage of households using Gas, Paraffin, Wood, Coal and animal dung for heating is greater than 30%
- Where the percentage of households using Gas, Paraffin, and candles for lighting is greater than 30%

Combining these enabled the selection of sub-places that is seen to contain not a majority but a proportion of the poorer population using forms of energy not considered clean.

There might be various reasons for not using electricity which could include;

- Not having access to electrical infrastructure
- Not being able to afford electricity (even if it is available) and afford the appliances that use electricity (COCT, 2011:44)
- Reliance on solid fuels driven by its convenience, portability and ease of access.

In addition this is contrasted by identifying areas with a predominant electricity use (indicated in blue). These represent the use of electricity by households using the following proportions:

More than 80% of all households using electricity for cooking More than 50% of all households using electricity for heating and More than 50% of all households using electricity for lighting

REFERENCES:

COCT see City of Cape Town

City of Cape Town. 2011. Smart living handbook – Energy in your home. Fourth edition. Cape Town.

Energypedia. 2015. Energy poverty (Source from <u>https://energypedia.info/wiki/Energy\_Poverty on 7 July 2015</u>)

IEA see International Energy Agency

International Energy Agency. 2006. World Energy Outlook – energy for cooking in developing countries. Paris.

Practical Action. 2015. Energy poverty (sourced from

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http://practicalaction.org/energy-poverty-the-hidden-crisis-1 on 7 July 2015) Contact Information: Mr. Gerbrand Mans **CSIR Built Environment** Tel: 021 888 2546 Email: gmans@csir.co.za or Mr. Johan Maritz **CSIR Built Environment** Tel: 012 841 2928 Email: jmaritz@csir.co.za CSIR BE. 2015. Indicator – energy poverty 2011. (Prepared in support of SACN – State of Citation information: the Cities Report 2015). Further information: This information was created as a draft working item. Other relevant documents are: