



**By 2030 eThekweni will be Africa's
most caring and liveable city**



Integrated Energy Plan Comments from eThekweni Municipality

DOE Public Participation Workshop October 2013

IEP Objectives

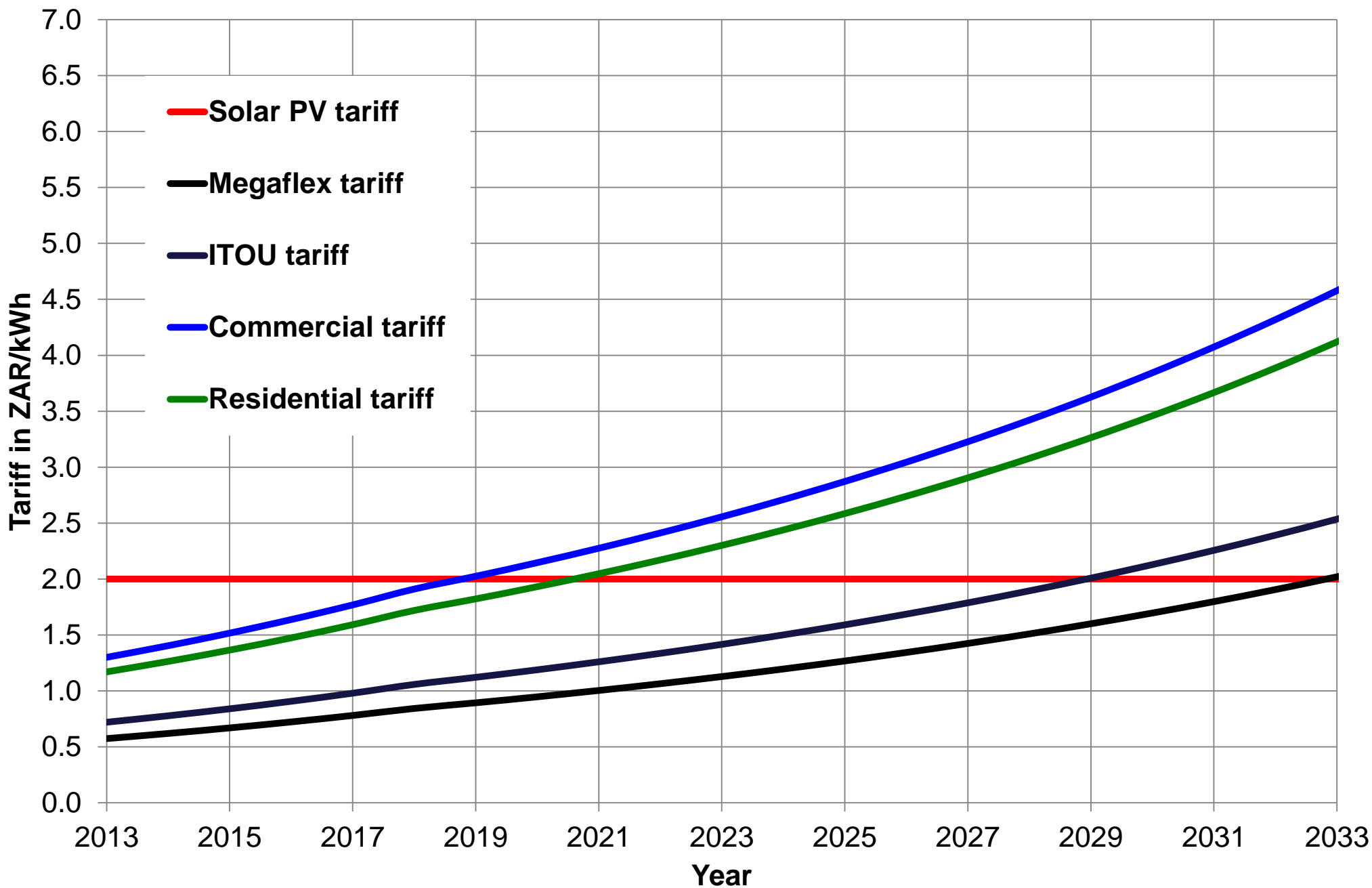
- Objective 4: Diversify supply sources and primary sources of energy
- Objective 7: Promote localisation and technology transfer and the creation of jobs;

Key Comments

- 1) Role of decentralised generation not considered
- 2) Externalised costs not included

R 1.38

Solar PPA tariff vs eThekweni electricity tariffs



RE City Targets by 2030

	Citywide (GWh)/yr	Municipality GWh)/yr
Consumption	11000	376
Target (%)	10%	10%
Target (GWh)	1100	37.6
Landfill gas	45	45
% of target	4%	120%
Remaining target	1055	-7.4

RE City Targets 2030

Technology	No	MW	GWh
Bulk Supply PV	5	10	82.13
Bulk Supply Wind	5	20	164.25
Bulk Biomass	20	5	164.25
Domestic PV	100000	0.001	164.25
Commercial PV	500	0.5	410.63
Water methane	8	1	70.08
			1055.58

Distributed Energy

- “Distributed generation is essentially an off-grid solution that includes the use of small generators, typically ranging in capacity from 5 kW to 10 MW,”

(IEP, page 76)

Recommendation

1) Take distributed energy into account

- Redraft section on distributed energy to more accurately reflect market trends

2) Include an additional Test Case specifically for large scale RE Uptake

- Include 10% decentralised target in cities by 2030

Key Comments

- 1) Role of decentralised generation not considered
- 2) **Externalised costs not included**

Externalised Costs

- Integrated Energy Plan:
 - Job Creation, Poverty Alleviation & Env Impacts
- Lack of accurate research for external costs

Recommendation

3) Develop a new Test Case that considers Externalised Costs

- Develop basic assumptions for determining externalised costs
- Possible range for coal R 0.10 – R 0.5 kWh

Recommendation

- 4) Interrogation of demand assumptions
 - Consider the relationship between GDP and Electricity Growth

- 5) Local Government to be more involved in IEP process



By 2030 eThekweni will be Africa's most caring and liveable city

Derek Morgan

Senior Manager

eThekweni Municipality, Energy Office

Derek.morgan@durban.gov.za

+27 31 311 11 39