PROJECT OVERVIEW

Financial analysis of alternative energy solutions for low income households in Cape Town

Many low-income households (LIHHs) have restricted access to energy services due, at least in part, to the affordability of these services. The City of Cape Town (CCT) wanted to assess various options for expanding the packages of energy services provided to LIHHs. PDG was sub-contracted by OneWorld to provide financial analysis in support of this study and to answer three key questions.

We analysed the city's cost of supply model and determined the cost of supply of electricity to LIHHs. We also quantified the cross-subsidies taking place within the electricity service and between electricity and other municipal services.

PDG developed a model that compared the Net Present Value of the net costs of several energy services packages projected over 10 years. This included both expanded access to electricity through more affordable tariffs and the introduction of alternative energy services.

We considered three broad options: increased allocation of equitable share subsidy to energy services; increased cross-subsidy between energy services tariffs or between other municipal services and energy services; and the introduction of efficiencies in the electricity service. We evaluated the impacts that this would have on property rates, the tariffs of other services and the tariffs of non-poor electricity users. We also assessed the extent to which required efficiencies would be realistically achievable.

The analysis demonstrated the trade-offs that are necessary within a constrained city budget when wishing to expand access to services without a new revenue source. Quantifying these trade-offs, as was done here, provides important information to decision makers.

Project Leader:
Kim Walsh
+27 21 6711402 / kim@pdg.co.za

AES PROJECT:

Project Profile: Financial analysis of alternative energy solutions for low income households in Cape Town

Client: City of Cape Town Energy and Climate Change directorate (Led by OneWorld)

Date: 2018-2020