

Comments to Public
Hearing Submissions
for COFIT

SPIIDERWEB

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Introduction

- **SpiderWeb Cogen Solutions** is a new company geared to the industry application of micro turbine power plant .
- Solutions are particularly targeted to the critical but non traditional , non centralised potential cogeneration sites

- Cogenerations sites are largely seen as those that are classified as large plant, metal and ore smelter, refineries, mills with bagasse as waste product etc.
- There is a unique selection of sites where CHP is used namely
 - ❖ large hospitals ,
 - ❖ Schools with boarding facilities,
 - ❖ industrial Parks with process engineering Plant
 - ❖ New Residential Suburban Developments
 - ❖ and RDP projects and marginalised communities

Comments on Deviations

- **Project fundamentals that may impact on solution of choice and key heat sources**

- i. Patient hot water needs, autoclaves and stérilisation eqt etc
- ii. Student water heating and cooking
- iii. Techno parks with absorption chillers and heat generating proceeses
- iv. Developments that have stalled because of Eskom non connectivity
- v. RDP houses and Informal Settlements that a far removed from substantial grid capacity and distribution facilities

Classification & Segmentation

Compliance Challenges

- Some solutions require less than 1MW solutions and yet provide critical services eg rural hospital with diesel; genset standby plant that may malfunction resulting in the non supply of essential power eg to operating theaters. **There should not be any new parameters to set 1MW or any other limit**
- Generating Plant can supply several load centres with power feeds from different substations. This may require own / new looped transmission systems which should make the project expensive.
- The waste heat harvested from several plants might need piping which is both expensive and sometimes not feasible to feed back to central plant

- Based on the wide application and theoretical potential for Combined Heat and Power systems outlined in this review these questions arise
- There should not be a set minimum generating capacity, the only criteria being a viable and cost effective solution within the set capital cost of generation/Kwatt.
- The ratio of potential heat available for reuse and total output power will be affected by the heat transfer reticulation at different sites which cannot be installed due to cost should be left to the developer.
- Are off grid solutions that are crucial for remote or underserviced areas to be discounted?

Questions on Distributed Cogen Potential

Comments on The Way Forward

- Microturbines with a combined capacity per development project area should be considered as one PPA application.
- There are advantages for using smaller microturbines with scalable capacity eg scheduled maintenance can be done without total shutdown of power generation, optimal performance can be reached on selected turbines in use if the load is reduced.
- Minimum heat reuse requirements for each given plant should be variable according to each project or amount of waste heat that is allowed to be expelled to the atmosphere

Conclusions

The COFIT programme should allow the implementation and use of micro turbines and also include solutions where absorption chillers can be economically used.

Low parasitic load is achievable with micro turbines.

This changes the parameters to also include Tri Generations or CCHP.

Thank You