



Water Co-Generation	Beck & Partner in cooperation with Fraunhofer Institute, Freiburg, Germany
Target	The target is to finance a demonstration project for decentral desalination (100 liters to 3 m ³ per day), based on Fraunhofer's Membrane Distillation module and driven by waste heat from veg-oil diesel-generators. Target countries are less-developed countries and rural regions in Brazil, India etc.
Long-term Perspective	To create a container that includes power generation and water desalination. The product can operate autonomously and builds the basis for commercial activity by bringing the infrastructure (e.g.small beverage production, food processing etc.)
Sum of Investment	350.000,- to 400.000,- for demonstration in Cape Verde, based on planned project sponsored by the Wuppertal Institute.
Procedure	<ol style="list-style-type: none"> 1) Defining standard heat exchanger on desalination-side 2) Implementing waste-heat use engine-side 3) Conversion of engine to veg-oil 4) Implementing collection and cleaning of waste-cooking oil to replace veg-oil
Participation	SCG as sponsor of all or a part of the activity. Rights to use the technology and knowhow must be negotiated.
Majority Owner	-
Additional Shareholders	Depending on type of involvement
Technical / Scientific Support	Fraunhofer Institute (Solar Systems), Freiburg, Germany; plus other Universities for engine or motor management matters
USP	The product will be the first to use waste heat for desalination, reducing the cost of desalinated water for small scale production. The compact format can be use as autonomous unit to deliver power and water at prices competitive with diesel engines. Fuel oil can be grown locally (Jatropha) or can be waste cooking oil.
Market	Countries and locations with diesel-based electricity production and access to saltwater.
Competition	The standard interface can later also be used with other methods of desalination (based on distillation or evaporation).
Technical Status	The process is proven with solar thermal energy (Spain, Germany, Morocco). The technical adjustments and



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	optimizations are state of the art, but have still to be made.
Risk	The main risk is that the price for the investment will be still too high for the customers to finance, reducing the potential customer base.
Exit-variants	Depending on type of involvement (project, sponsoring or company)