SOLARKIOSK
an autonomous modular business unit.

AREA & Rockefeller Foundation
Bellagio, Italy
May 2012

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The lack of access to electricity is a key limiting factor for rural development.

1.5 billion people are not connected to the electricity grid. 650 million of them live in Africa.

The world at night

Electricity is vital for...

- ... Business empowerment
- ... Communication
- ... Lighting
- ... Information / Entertainment

Source: Worldbank

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The solution to this dilemma can be provided by the SOLARKIOSK.

Features of the SOLARKIOSK

Financial viability:
- Substantial market size – money spent on diesel substitutes already sufficient to financial viability
- Based on existing market demand and willingness to pay, however, cheaper, and more reliable / accessible

“Plug and Play“: Power box combining electricity production and consumption in one entity
- Secure
- Durable
- Technology made in Germany manufactured / assembled locally

Wider development Impact:
- Fighting deforestation
- Providing clean and healthy energy
- Counteracting rural depopulation
- Creating employment and income
- Providing information and entertainment possibilities

“Win Win“ as business philosophy: business franchise model enables kiosk manager to become a successful entrepreneur without upfront payment

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The average household in Sub-Sahara Africa in off-grid areas spends up to 40% of their income, about 120 USD, annually on substitutes for electricity, such as biomass, paraffin, kerosene, diesel, candles…

Each mobile phone charging in off-grid areas costs about 0,20 – 1 USD….

Remote off-grid areas in the world are a vast and untapped market for all the products and services that fit the needs of rural people: Light, energy, food, drinks, medicaments, daily goods, mobile phone and battery charging, internet, after sales service, maintenance, productive energy…

Source: Worldbank, ENDEVA Study 2012

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The SOLARKIOSK business model generates revenues from three sources and is scalable.

SOLARKIOSK business model

Revenues from

- Fixed fee per month
- Variable fee related to electricity consumption
- Margin from product purchases

• Ensuring steady and stable cash-flows
• Participate in kiosk energy-services
• Monitored by SOLARKIOSK tracking software
• Participate in sales of end customer solar products and daily goods

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The SOLARKIOSK serves as a platform and enables to service additional future business expansion.

Future possible business extensions

- Advertising
- Water purification
- Banking & microfinancing
- Entertainment
- Telecom towers
- Mini grid, productive energy
„Plug & Play Powerbox“ for product distribution and energy services

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The SOLARKIOSK is the first professional approach to combining electricity production and consumption in one entity.

**SOLARKIOSK plug & play features (1/2)**

<table>
<thead>
<tr>
<th>Services</th>
<th>Technical setup</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cell phone charging</td>
<td>• Standard-size kiosk: 2.4 by 3.2 meters of solar panels → 1 kW peak power</td>
</tr>
<tr>
<td>• Lantern charging</td>
<td>• 1 kW peak power yields ~4 kWh of energy per day (depending on climate)</td>
</tr>
<tr>
<td>• Charging of other batteries</td>
<td>• Bigger kiosk = more energy</td>
</tr>
<tr>
<td>• Cooling of customer items</td>
<td>Integrated technical panel: “black box” for</td>
</tr>
<tr>
<td>• Internet café</td>
<td>• software</td>
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<tr>
<td></td>
<td>• telecom</td>
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<td></td>
<td>• chargers</td>
</tr>
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<td></td>
<td>• converters</td>
</tr>
</tbody>
</table>

**Products for sale**

• Solar lanterns, pico systems
• Cold drinks (from fridge)
• Kiosk products (cell phones, prepaid cards)

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The SOLARKIOSK is highly flexible, safe and durable. It will be locally manufactured.

SOLARKIOSK plug & play features (2/2)

**Flexibility**
- Infinitely expandable, many sizes possible
- More roof area = more power

**Security**
- Prevent looting of kiosk & theft of valuable contents
- Kiosk is structurally solid
- Walls hard to penetrate
- All screws accessible only from inside

**Transportability**
- Light-weight, sturdy, durable, secure
- Kit of parts: assembled only at target location
- Local components
- Extensible, flexible

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The SOLARKIOSK goes far beyond business.

- Brings light into people's homes
- Enables them to read & study & communicate at night
- Cools food & drinks & medication
- Creates business & qualified jobs in rural areas (operator plus \( \geq 4 \) employees per kiosk)
- Helps prevent deforestation
- Enables capacity building
- Creates local manufacturing / assembly
- Introduces after sales services and maintenance
- Brings information & entertainment to rural areas
- Reaches towards productive energy use

The SOLARKIOSK has the potential to dramatically foster the fulfillment of the MDGS.

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Thank you!

Access to power... is Access to information... is Access to a new marketplace.

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