The Future of Energy Innovation: Applications for Off-grid Energy in Developing Countries

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DBL Partners
We are a San Francisco-based firm with a “Double Bottom Line” approach to venture capital investing

• Pioneering impact venture capital firm: No Sacrifice approach to investing
• Spun out from JPMorgan in 2008, legacy Hambrecht & Quist ventures group
• Over the last eleven years, the success of our portfolio companies and double bottom line assistance to our management teams has helped to put impact investing on the map
• As a result, many long-held biases are melting away as mission-related business moves to the mainstream
• Our approach allows for hands-on, proactive pursuit of mission and return, meeting a growing demand among investors for positive, not passive, portfolio development

Results:
• $75M Fund I (2004 vintage) – Seven exits, five IPOs
• $150.8M Fund II (2010 vintage) – One IPO, One M&A Exit
• $400M Fund III (Closed June 2015) – Currently Investing
• Market leading companies creating thousands of jobs with meaningful impact
Technology Leap Frogging in Developing Countries

- Landline
- Wireless Landline
- Cell Phones
- Smart Phones / VoIP

- Centralized Fossil Fuel Plants
- Utility Scale Renewables
- Distributed Renewables
International: 1.3 Billion Have No Grid Power

World Electricity Access and Lack of Access by Region, 2012

With access 85%

Without access 15%

Sub-Saharan Africa 55%

South Asia 34%

Others 12%

Rural 87%

Urban 13%

REN21 Renewables 2015 Global Status Report
Off.Grid: Electric delivers electrical services to the world’s off-grid poor.
Off-Grid Electric is the world's first massively scalable off-grid electric company

- DBL led the Off-Grid Electric (OGE) Series C round in 2015
- Initial focus on Sub-Saharan Africa. Tanzania is first country, expanding to Rwanda and other Sub-Saharan Africa countries in 2016
- OGE provides solar energy as pay-as-you-go service starting at same cost of kerosene & cell-charging fees ($8/month)
- Combines solar PV panels, Li-Ion battery and LED lighting to provide reliable, convenient, and affordable electricity and lighting
- Over 80,000 customers in Tanzania in 3 years. 10,107 new installations in October 2015 alone. Goal of 10M customers in Sub-Saharan Africa in 2020
- 800 employees today, projected to grow to well over 10,000 employees in the next few years. Off-Grid Academy is training over 100 new employees each month
- On December 17, 2015, OGE announced an investment vehicle of more than $45 million for solar and storage in Africa. The David and Lucile Packard Foundation, Ceniarth and the Calvert Foundation will lend up to $40 Million of this.
Figure 1 | Africa’s energy landscape: Present*  

<table>
<thead>
<tr>
<th>Region</th>
<th>Population (million people)</th>
<th>GDP billion/yr (current international $)</th>
<th>Access to electricity (% population)</th>
<th>Electricity (KWh per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Africa</td>
<td>175</td>
<td>1,936</td>
<td>98%</td>
<td>1,574</td>
</tr>
<tr>
<td>West Africa</td>
<td>327</td>
<td>1,310</td>
<td>47%</td>
<td>188</td>
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<tr>
<td>East Africa</td>
<td>303</td>
<td>646</td>
<td>23%</td>
<td>91</td>
</tr>
<tr>
<td>Central Africa</td>
<td>115</td>
<td>227</td>
<td>25%</td>
<td>167</td>
</tr>
<tr>
<td>Southern Africa</td>
<td>177</td>
<td>1,100</td>
<td>43%</td>
<td>2,061</td>
</tr>
</tbody>
</table>

*Note: statistics refer to 2013, except for access to electricity which refers to 2012.

Source: http://c1cleantechnicacom.wpengine.netdna-cdn.com/files/2015/10/IRENA-5.jpg