Using emerging technologies to deliver more energy efficient buildings, industries, and homes

Jette Findsen, VP Environment and Energy, DAI
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PROJECT OVERVIEW

COMPONENTS

01 Strengthening Local Enabling Environment
02 Unlocking Capital
03 Spurring Innovation

PROJECT GOALS

400MW
Of distributed energy systems deployed

$600M
Investment mobilized

20
Innovative solutions

Donor
USAID

Budget
$14M

Implementer
DAI

Timeline
2019-2024

Location
DaNang & Ho Chi Minh City (HCMC)
WHY WAS VUES SUCCESSFUL?

“Advanced, distributed energy solutions deployed to improve urban energy resilience and energy security”

CITY FOCUSED
- Innovation hubs
- Suffer from pollution and climate disasters
- Cities account for two thirds of energy demand

LOCALLY LED
- Technical assistance co-created with cities & provided by local experts
- Decentralized solutions are more effective and implemented faster

STRATEGIC
HCMC and DaNang were selected based on:
- Potential for energy saved
- Ease of doing business
- Eagerness to embrace clean energy
SPURRING INNOVATION

Innovation Challenge Fund (ICF)

- Created an inclusive environment
- Served as a vetting mechanism
- Provided catalytic funding
- Remained flexible and supportive
## FUNDED EXAMPLE

### High Efficiency Ceiling Fans (HECFs)

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>Ceiling fans with the ability to work at multiple speeds while ensuring the same air flow as traditional fans, reducing energy consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHY THIS TECHNOLOGY?</td>
<td>It demonstrates the benefits of fitting energy efficient motors in traditional ceiling fans. Has the potential to replace 2-3 million traditional fans per/year</td>
</tr>
<tr>
<td>SAVINGS</td>
<td>Annual energy savings of one ceiling fan is 39.4 kWh/year</td>
</tr>
<tr>
<td>CHALLENGES</td>
<td>Limited manufacturing capability to meet demand; stiff competition from lower quality known brands</td>
</tr>
</tbody>
</table>
**Funded Example**

*Eco-power meters*

<table>
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<tr>
<th>TECHNOLOGY</th>
<th>Energy management system. Uses smart meters for continuous monitoring of lighting equipment, air conditioners, and production equipment</th>
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<tr>
<td>WHY THIS TECHNOLOGY</td>
<td>Measures electricity use, visualizes energy consumption and highlights areas for EE improvements and target setting. Potential applications in buildings, industrial zones, shopping malls, schools, hospitals</td>
</tr>
<tr>
<td>SAVINGS</td>
<td>Demonstrated potential to reduce energy consumption by at least 26%</td>
</tr>
<tr>
<td>CHALLENGES</td>
<td>Complex owner/tenant arrangements; Commercialization and scaling</td>
</tr>
</tbody>
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![Diagram of eco-power meters](image-url)
**Funded Example**

*E-point*

<table>
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<tr>
<th><strong>Technology</strong></th>
<th>An App for consumers to view data on their electricity consumption and other information</th>
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<td><strong>Why This Technology</strong></td>
<td>By installing E-point, customers can track their electricity use, pay bills, and receive incentives for reducing energy use</td>
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<tr>
<td><strong>Savings</strong></td>
<td>Provided customers with greater control over their energy use, leading to energy and cost savings</td>
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<tr>
<td><strong>Challenges</strong></td>
<td>Low numbers of downloads and user awareness; complexity of PPPs; hesitation to link electricity contract with App</td>
</tr>
</tbody>
</table>
Recommendations for Implementing and Scaling Innovative Solutions

LESSONS LEARNED

Choose a location where you can achieve maximum impact
Gain buy-in early and often
Work concurrently to foster innovation, mobilize capital, and improve the enabling environment
Support innovators with business planning and investment mobilization

Private capital is necessary for scaling
To attract private investment:
Create adequate enabling environments
Target large industries/building categories
Promote local incentives for energy savings
SHAPING A MORE LIVABLE WORLD.