Illustrative examples
Enhancing reliability of electricity access in district hospitals in Africa

- **Rationale**

- **Linkages with energy, climate change, and maternal and child survival**

- **Project overview**

Photo credit: Partners in Health/Haiti
Importance of energy to health services (in particular access to electricity)

- Easier recruitment and training
- Better staff morale
- Continued medical education
- Improved cold chain
- Laboratory testing
- E-health
- Prolonged opening hours
- Wider range of services
- Better functionality of medical devices
- Better communication
- Improved records management
- General hygiene improved
- Enhanced safety
- Staff and patient sense of security and safety

Access to electricity a significant concern

Percentage of Healthcare Facilities with Electricity Access

% of Healthcare Facilities with Electricity Access

- Red: < 25
- Orange: 25 - 50
- Yellow: 50 - 75
- Green: 75 - 90
- Blue: > 90
- Data not available
- Not applicable

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Data Source: World Health Organization
Map Production: Interventions for Healthy Environments
World Health Organization

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75 countries together account for > 95% of maternal and child deaths worldwide
Health facilities an essential setting for addressing preventable maternal and newborn mortality

- Improving quality of facility based care at time of birth a central strategy

- Electricity is a critical determinant of quality of care provided
Linkages with the SDGs

- Ending preventable maternal and newborn deaths (Targets 3.1 & 3.2)
- Access to modern energy and increasing share of renewables (Targets 7.1 & 7.2)
- Resilience and adaptive capacity to climate-related hazards (Target 13.1)
Opportunity associated with sustainable energy solutions

Off-grid Solutions

Hybrid Solutions

Grid Extension

Energy Efficient Equipment
Opportunities to finance "green energy" infrastructure in health facilities
Related WHO activities:
energy audits in district hospitals in Africa

Objective:
- To develop a model for improving energy services (particularly electricity) provided to health facilities using renewable energy technologies

Scope of focus:
- District hospitals and facilities that provide emergency obstetric services;
- Applications in low income settings particularly vulnerable to climate change
Focus of hospital energy audits

A. To determine minimum energy requirements of essential package for maternal and child health

CHILD BIRTH
PRENATAL CARE
BLOOD BANK
LABORATORY
INFECTION PREVENTION
SURGERY
EMERGENCY RECUSCITATION

Determine minimum electricity needs based on WHO and national standards of quality of care
Focus of hospital energy audits (continued..)

B. Analyze options for enhancing energy services in the target hospitals

GRID + GENERATOR
GRID + GENERATOR + SOLAR
GRID + SOLAR
SOLAR ONLY

Examine differences in cost, reliability, and climate and other environmental emissions (e.g. air pollution)
## Where are we?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
<th>Jun-16</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contracting of international and national consultants</td>
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<td>3, 4</td>
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<tr>
<td>Preparatory work, e.g. on tool development, data collection systems (e.g. spreadsheets), interview guides, etc.</td>
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<tr>
<td>Consultations with key project stakeholders to determine facility selection criteria and identify candidate hospitals for the energy audits</td>
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<td>1, 2</td>
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<tr>
<td>Conduct health facility energy audits</td>
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<td>ETHIOPIA</td>
<td>KENYA</td>
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<tr>
<td>Summarize initial findings present recommendations in stakeholder workshop</td>
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<td>ETHIOPIA</td>
<td>KENYA</td>
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<td>Prepare final report and case study documenting lessons learned</td>
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<td>7</td>
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Other relevant WHO initiatives


- Monitoring and reporting on the energy gap in health care facilities…….

- Advocacy and outreach, including through SE4ALL where WHO is co-leading together with UNF and UN Women a high-impact opportunity on health facility electrification