A Nexus Approach to Universal Energy Access by 2030

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Universal energy access represents a multiplier effect in relation to sustainable development.

Having access to sustainable energy allows the achievement of many SDGs.

Natural resources are strongly interlinked.

The SDG on Energy is specially related to other important SDGs such as those tackling poverty eradication, water, food security, economy, education, gender, health and others.
To accomplish the Sustainable Development Goals, integrated and holistic approaches are needed to:

- Take advantage of synergies
- Allow for efficient solutions
- Avoid negative unintended consequences when sectoral approaches alone are used
- Assess competing alternatives for development (trade-offs)
Energy Nexus with the three Dimensions of Sustainable Development
Universal Access to Modern Energy Services

Over a Third of World Population is Without Access to Sustainable Energy

- 2.9 billion depend on solid unsustainable biomass for cooking
- 1.1 billion without electricity
- Over 80% live in rural areas
- Largest shares in Sub-Saharan Africa and Asia
Major Challenge: Ending Energy Poverty, SDG1

Lack of or insufficient commercial energy use correlates with high infant mortality, illiteracy, and with low life expectancy.
NEXUS: Energy/Food Security, SDG2

Gender, Poverty Eradication, Health, Education...
Energy/Health Nexus, SDG3

4 million premature deaths per year due to indoor air pollution -- more than Malaria, HIV/AIDS, and Tuberculosis combined.
A third of primary schools in the world lack access to electricity
Energy/Women’s Empowerment Nexus, SDG5
Solar PV System for Water Pumping, SDG 6

- Over 5,000 mts altitude
- Bolivia
Energy/Cities Nexus, SDG11

Climate, Water, Food, Transportation, Health, Education, Poverty Eradication...
Energy/Climate Change Nexus, SDG13

Water, Poverty Eradication, Sustainable Livelihoods, Biodiversity...
An Example of a Nexus Approach to Energy Access
School in Rural Community of Bolivia

School: Totora,
Province: Tiquipaya,
Near Cochabamba
Bolivia
Synergies: Energy for Education for Lighting
Synergies: Energy for Education for Lighting, for information and communication
Synergies: Energy for Education for Lighting, for information and communication and the new community center
Synergies: Energy, water and health
Synergies: Energy, Education, Water, Food, Health and Gender Nexus
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Possible Energy Nexus Targets / Indicators

1. **Nexus Energy - Health**
   - Ensure sustainable energy access to all the health centres of the world
   - Eliminate all premature deaths resulting from indoor pollution from polluting fuels

2. **Nexus Energy - Education**
   - Ensure electricity access to all schools of the world

3. **Nexus Energy - Gender**
   - Minimize all the risks to women and girls related to energy activities such as cooking, wood collection, lack of lighting, candle lighting, etc.
4. **Nexus Energy - Water**
- Minimize the use of water in all relevant steps of energy systems
- Maximize the availability of energy for efficient use in sanitation and water treatment, distribution, and heating.

5. **Nexus Energy – Food Security**
- Maximize the availability and “efficient” use of sustainable energy in all relevant steps of the food production and distribution cycles
- Maximize the use of efficient clean stoves and clean fuels for cooking
Supporting SDG7, Target 7.1: “By 2030 ensure universal access to affordable, reliable and modern energy services”
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Thank You!

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