

# High-Level Dialogue on Energy 2021

electricity<sup>5</sup>. Two-thirds of schools do not have reliable electricity either and distance learning remains a distant aspiration<sup>6</sup>. Displaced population are significantly exposed, with over 90% lacking sufficient access to electricity<sup>7</sup>.

An important urban-rural divide remains, with the world's rural areas continuing to have lower levels of access to electricity (80%, with 668 million people unserved) than urban areas (97%; 121 million people unserved)<sup>8</sup>. The progress made is also often offset by demographic growth and if current trends continue, without a significant scale up of actions, there will still be about 600 million people without access by 2030, mostly concentrated in SSA.

There is a stark difference between the level of overall electricity consumption and household appliances between

pandemic and remain amongst the most vulnerable to the adverse economic impacts. Preliminary findings suggests that the lock-down measures hindered women from reaching out to customers and

Reduced costs of energy efficient appliances is one of the key factors that has enabled increased access to off-grid solutions such as solar home systems. Sales of off-grid appliances have grown 50-80% annually and solar home systems kits now often include off-grid appliances<sup>18</sup>. The benefits of energy efficient appliances – considerations of minimum energy efficiency standards for the end use products of the off-grid, mini



degradation and to the emission of approximately 1 gigaton of CO<sub>2</sub>/year<sup>23</sup> (2 % of global emissions). Not progressing beyond the status quo is costing the world more than US\$2 trillion each year from the negative impacts on health (US\$ 1.4 trillion per year), climate, environment (US\$ 0.2 trillion per year) and loss in productivity for women (US\$ 0.8 trillion per year)<sup>24</sup>. Women's aggregate time loss from fuelwood collection and cooking averages about 5 hours per day.

The annual rate of access to clean cooking fuels and technologies from 2010 to 2018 increased by less than one percentage point as population growth outpaced the number of those with access. While Asia made notable progress, SSA remained at a standstill. Only 16% of the people in LDCs had access to clean fuels and technologies for cooking. In 22 LDCs, mostly in Africa, it was less than 5% for the same period. An assessment of recent trends and policies indicates that without additional efforts, 2.3 billion people will still be without clean cooking access in 2030.

There are urban-rural discrepancies worldwide in access to clean cooking fuels and technologies: 83% of urban dwellers have access to clean fuels and technologies, compared with 37% of those living in the rural areas. These discrepancies have been shrinking since 2010 owing, first, to increased access in rural areas, and, second, to population growth in the cities that is beginning to outpace access.

Clean cooking continues to attract less attention and lower prioritization by development partners, owing to the fragmented and difficult nature of the sector, and the complexity of achieving interventions at scale. The total amount of finance for residential clean cooking dropped to US\$ 32 million in 2017. The 2015-2016 estimated annual average was US\$ 117 million, compared to the US\$ 4.4 billion annual investment estimated to be needed to achieve universal access to clean cooking by 2030 (SEforAll, 2019). Key barriers that explain this persistent lack of progress include:

1. A lack of awareness at all levels and adequate enabling environment, from a limited political will demonstrated by many governments, to limited knowledge on the negative impacts of traditional cooking methods by the users, and resistance to change linked to various factors including risks of gender-based violence in certain contexts.
2. Technology-related challenges, which include the limited availability of alternative fuels and cookstoves in a given context, and the difficulty to sustainably deploy alternative clean cooking solutions that can match both the available resources and the local cooking habits to facilitate adoption.
3. The cooking ecosystem for supply and demand generation is complex and fragmented. There is a lack of interventions and solutions that respond to the needs of low-income and rural households, contextualized to local cooking practices and cultures.
4. Economic factors, linked to the households' limited ability and willingness to pay for clean(er) cooking solutions. This particularly applies in rural areas where firewood usually does not have a direct financial cost for households, as opposed to charcoal in urban areas. The customers' affordability barrier translates to the difficulty for the private sector to develop viable and sustainable business models for the provision of clean cooking services.

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<sup>23</sup> Stockholm Energy

## B. How to achieve the scale needed to accelerate progress towards 2030 targets?

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The post-Covid era will require continued focus on all three markets segments (grid extension, mini grids, and off-grid technologies)





transfer remaining risks show potential to holistically address the main barriers currently limiting investments in the clean cooking space.

Tangible financial instruments developed to date include the US\$ 500 million Clean Cooking Fund from the World Bank, which aims at incentivizing the private sector to deliver modern cooking services primarily through results-based funding grants and is expected to leverage at least US\$ 2 billion in investments over the next five years. Innovative companies leveraging on the growing penetration of mobile networks and digitalization have also started providing energy services on a pay-as-you-go (PAYG) basis, thus widely overcoming the affordability barrier. Moving forward, incentive schemes and innovative business models will need to be further developed, adapted to local conditions (noting in particular the strong disparity between urban and rural contexts) and applied to a wider range of fuels and technologies.

## C. Structured discussion guidelines

The generic guidelines for the discussion are in the annex. Energy access specific guidelines are the following:

This group will address the need and means for accelerated actions towards universal access to electricity and clean cooking, as well as heating/ cooling and other energy services.

This group will start from the position of seeing the challenges of energy access not only as issues of finance or technology, but as issues of addressing the urgent needs of vulnerable people and lost opportunities for societal and ecosystem welfare, and an understanding of the interdependencies within and beyond established boundaries.

The problems of energy access, electricity and clean cooking, are not with the amount of energy, not with the availability of technology, not just with the data, not with the need for innovation and not only to do with the access to finance and investment.

Energy access problems are within the business models, within the economic models, within the politics, within the history, within the education, and, ultimately, within the culture of energy. The problems all stem from an absence of fully appreciating the everyday implications for people who must go without electricity. The lack of access is rooted in relational contexts between and within countries that are defined by an absence of enough care for others.

1. Shift to a perception of interdependency and solidarity for a new energy access contract for all of humanity (working closely with TWG2 and TWG3)
2. Prioritise actions beyond established boundaries, specifically beyond your own boundaries to where the need is greatest (working closely with TWG4 and TWG5)
  - a. Focus on places with highest percentage of population without access
    - i. Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of Congo, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Mozambique, Myanmar, Niger, Rwanda, Sierra Leone, South Sudan, Uganda
  - b. Focus on places with the highest absolute number without access
    - i. Angola, Bangladesh, Burkina Faso, China, Democratic Republic of Congo, Ethiopia, India, Kenya, Malaw



The spirit of the Technical Working Groups needs to be to work together to embed the cross-cutting challenges (Enabling the SDGs; Innovation, Technology and Data; and Finance and Investment) into the Energy Access and Energy Transitions discussions and work effort throughout the entire Dialogue process by mixing expertise, participants bringing all of their complexity and experience, to allow for a shift in emphasis of the recommended actions from direct (first-order) solutions and fixes, to indirect (higher-order) systems-level approaches to create at scale, sustained change across all energy challenges well beyond the end of the Dialogue process in communities across the world.

The outputs of the Technical Working Groups are to be guided by the following Principles:

**Ambitious** – recommendations must contribute towards realising the theme-related 2025 milestones, SDG7 targets for 2030, and onwards to net-zero by 2050.

**Innovative** – recommendations should consider resolving identified barriers in novel and fit-for-purpose ways.

**Catalytic/ high impact** – recommendations should optimize for impact either in the form of induced and co-benefits, or through a significant contribution to overcoming the barriers identified.

**Collaborative** – solutions that allow multiple market stakeholders to work together and create value for all partners including local communities should be prioritized.

**Outcome focused** – interventions should take a targeted approach to responding to the barriers identified and advancing progress on the Theme.

**Replicable at scale** – recommendations that can be replicated across geographies at scale, and possible across Themes should be prioritized.

## High-level Dialogue on Energy 2021

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This Theme Report is to be developed by the Technical Working Group for *Energy*, with inputs from all members of the group. The required report length should be approximately 10,000 - 12,000 words and provide substantive recommendations with a plan of action Theme I, which, together with other Theme Reports, will contribute towards an action-oriented global roadmap towards the achievement of SDG 7 by 2030 and net-zero emissions by 2050. The report should be made in a succinct manner and can be widely consumed by a non-technical audience.

### Suggested Outline for the Report