High-Level Dialogue on Energy 2021

Concept Note for Technical Working Group 1 on Energy Access

Co-Leads: World Bank, UNDP and OHRLLS

Goal of the Technical Working Group

To produce an action-oriented, operational-focused Thematic Report with targeted recommendations for achieving the 2025 interim milestones, the 2030 SDG7 targets and net-zero emissions by 2050.

Overall Objective of Technical Working Group

To create the conditions in the wider systems of energy for mutual learning to challenge habits and enable profound shifts in mindsets and attitudes for the possibilities of new patterns of behaviours and relationships, and actions and investments, to accelerate progress towards the 2025 interim milestones, achieving SDG7 by 2030 and net-zero by 2050 for everyone, everywhere.

A. Status of progress towards achieving SDG7 energy access targets – Where are we Today?

Clean Energy is an essential enabler for sustainable development. *The multiplier effect of providing access to clean, reliable and affordable energy at-scale touches on every aspect of Sustainable Development, from poverty reduction, to increasing levels of health, education, gender equality and overall well-being and prosperity while tackling the climate and environmental crisis. Achieving SDG 7 is key to support all the other SDGs.*

Electricity

Important progress has been made but a significant electricity access gap still needs to be closed. The last decade has seen notable progress in access to electricity with an increase in access from 83% of the global population in 2010 to 90% in 2018; representing an additional 1 billion people gaining electricity access during this period[1]. This was largely driven by the successes in South Asia (India in particular) but progress has not been equal between regions. Sub-Saharan Africa (SSA) remains the part of the world with the largest access deficit, where over half of the 789 million unserved people live[2]. Of the overall LDC population, only 52% had access to electricity in 2018, with some rural access rates well below 10% in these countries[3]. In SSA, only 43% of the population is electrified[4], one in four health facilities have no access to electricity at all, and only 28% of facilities have reliable

[1] Tracking SDG7: The Energy Progress Report

[2] Tracking SDG7: The Energy Progress Report

3 UN-OHRLLS (2020). Urgent Action Needed for World's Vulnerable Countries to Meet Energy Targets by 2030

4 Blimpo, Moussa P., and Malcolm Cosgrove-Davies. 2019. Electricity Access in Sub-Saharan Africa: Uptake, Reliability, and Complementary Factors for Economic Impact. Africa Development Forum series. Washington, DC: World Bank

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

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)[8]. 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 regions. High income countries have between 15-40 appliances, compared to 3-10 appliances for the average household in India and 2-5 appliances for households in most part of rural Africa[9]. Household appliances, such as refrigerators, mobile phones, and fans can have a wide-range of positive impacts in terms of livelihood, health and education. Lack of access to cooling puts 1.2 billion people, across 54 high impact countries at risk[10], while energy poverty remains a challenge even in the European Union (EU), where 6.9% of the population reported that they could not afford to heat their homes sufficiently[11].

Access to electricity services is critical for health and human development and economic growth. However, electrification programs do not automatically translate into higher levels of human development and economic growth. The absence of integration with productive use programs and support for small business development may hinder such development in combination with barriers created by the absence of reliability and quality of electricity services. In addition, energy policies, programs and projects often remain gender-neutral[12]. The benefits of energy access are not equitably distributed between gender the energy needs of women may differ to men as a result of pre-existing social expectations and entrenched inequalities[13].

All market segments of the energy sector have been adversely impacted by the economic downturn following the outbreak of the COVID-19 pandemic. Value chains have been disrupted by the outbreak itself, liquidity constraints have emerged that stifled grid and distributed renewable energy investments, new connections and existing operations of utilities and private operators. In particular COVID-19 has exacerbated the fragility of the nascent off-grid solar sector, which at the beginning of 2020 had grown into a USD 1.75 billion market serving 420 million users[14], forcing almost one third of the market into business closure[15]. Women entrepreneurs may have been particularly affected by the

5 WHO (2015). Access to modern energy services for health facilities in resource-constrained se ings: a review of status, signi- cance, challenges and measurement. Switzerland.

6 World Bank & SEforAll (2020). Energy access takes center stage in fighting COVID-19 (Coronavirus) and powering recovery in Africa.

7 NORCAP, BCG (2020). EmPowering Africa's Most Vulnerable.

8 Tracking SDG7: The Energy Progress Report

9 Energy for Access Coalition (2019). The State of the Off-Grid Appliance Market.

10 SEforALL (2020). Chilling Prospects.

11 Europan Commission (2020). Energy Poverty

12 ENERGIA (2019). Gender in the transition to sustainable energy for all: From evidence to inclusive policies

13 ENERGIA (2020). Policy Brief #2 Why energy access and gender equality are inextricably linked

14 Off-Grid Solar Market Trends Report 2020, Lighting Global, GOGLA, ESMAP, Vivid Economics and Open Capital Advisors, February 2020.

15 COVID-19: Energy Access Industry Barometer, Endev, August 2020.

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 limited the ability to participate in trainings and capacity building activities. The World Bank (2020) notes that nascent companies operating mini grids in rural locations and providing off-grid solar services to an increasing share of the African population, could face financial hardship or even insolvency. Some of the most vulnerable people and businesses across Africa risk plunging into darkness at a moment when electricity access is vital. Support for these companies will remain vital in the post-Covid era.

The downturn in economic growth has left uncertainty with respect to future demands in the short and medium term. Affordability for the poor and rural communities has further been hampered as a result of the economic downturn, loss of jobs, and uncertainty of future economic activity.

The public sector will be unable to rapidly scale up electricity access at the same time as improving reliability for existing customers. Globally, a significant number of grid-connected customers face unreliable services. Utilities in SSA are challenged by poor planning, weak financial positions and struggle to undertake new investments and at the same time service existing debt obligations and meet operating costs. This situation together with increasing fiscal constraints post-COVID hinders a rapid expansion of reliable grid-connected electricity access.

Grid connected utilities, particularly in SSA, have to date faced challenges in providing services to the most unserved areas. In many SSA countries, where services are unreliable and large segments of the population remain without access, distribution investments have not kept up with investments in generation, resulting in high losses on the most fragile networks (in some cases as high as 40%) and unreliable and poor quality of services. The high cost of service delivery has required significant capital subsidies combined with ongoing subsidies to cover operating costs. In many countries a sustainable expansion to connect the unserved communities will not be possible by 2030. In other countries such an expansion may not be least cost, and the required subsidies are often unaffordable reducing the ability of utilities to adequately maintain and operate distribution.

Distributed renewable energy solutions have gained significant ground in the provision of services. By 2018, the adoption of off-grid energy sources had tripled worldwide from 2010 levels[16]. Solutions for off-grid renewable energy, either via solar photovoltaic (PV) and hybrid mini grids or stand-alone solar systems have become the backbone to closing the energy access gap, driven by three key trends: (i) continued reductions in hardware costs – in solar modules, batteries, energy management systems, meters, etc. and energy efficient appliances; (ii) a digital revolution facilitating geospatial planning, preparation for scaling, marketing, payments and monitoring, as well as new fintech solutions (for example, end-user credit assessments); and (iii) innovation in business models, such as pay-as-you go (PAYG) and third-party ownership for solar home systems, which offer energy-as-a-service, and can remove previously prohibitive up-front costs for households and small businesses[17]. These new business models have also contributed to gender equality in energy access by allowing women the possibility to afford off-grid solar products through flexible financing schemes.

[16] Tracking SDG7: The Energy Progress Report

[17] UNDP & ETH Zurich (2018). Derisking Renewable Energy Investment: Off-Grid Electrification. United Nations Development Programme, New York, NY and ETH Zurich, Energy Politics Group, Zurich, Switzerland.

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[18]. The benefits of energy efficient appliances – considerations of minimum energy efficiency standards for the end use products of the off-grid, mini grid, and expanded grid access solutions could have a major impact in electricity access, both for household end use and productive uses. Cooling appliances such as fans and small energy efficient air conditioners are particularly important for these expanded access solutions. Cooling end-use solutions should be prioritized – not only to ensure liveable indoor temperature in the climates without sufficient energy access, but also for productive uses (eg: refrigeration, transporting perishable goods to markets, storing medicine) and healthcare, including cold chain for COVID-19 vaccines.

Solar hybrid mini grids are currently the most viable and reliable solution for off-grid areas with sufficient population and load density, with a potential to provide access to electricity for an additional half a billion people by 2030[19]; while for areas with small and dispersed communities stand alone solar systems can provide cost effective solutions.

Governments can support the mini grid industry, with assistance from development partners, toward achieving clear and measurable targets for each of the five market drivers that will enable it to connect 490 million people by 2030:

(i) reducing the levelized cost of electricity (LCOE) of mini grid electricity to $0.20/kWh;
(ii) building around 1,500 projects per key access-deficit country per year by 2030 and reducing the time it takes to build a mini grid to five weeks;
(iii) providing superior-quality service of more than 97% uptime by 2030 and increasing the industrywide average load factor to 45%;
(iv) attracting nearly $220 billion of investment from development partners, governments, and the private sector;
(v) raising the average Regulatory Indicators for Sustainable Energy (RISE)[20] score in the top-20 electricity access-deficit countries to 80 out of 100.

Experience to date has shown that accelerating deployment of mini grids at scale will require country-specific focus on 10 building blocks that need to be in place to support these five key market drivers. These include: (i) introduction of the latest advances in solar-hybrid technology and optimization of component costing, (ii) incorporation of geospatial portfolio planning, (iii) promotion of income-generating and productive uses of electricity, (iv) emphasis on early and continued community engagement, (v) presence of local and international industry, (vi) access to finance, (vii) comprehensive support to training and skills building across the supply and demand sides, (viii) setup of an appropriate institutional framework, (ix) presence of workable regulations, and (x) setup of an enabling business environment.

[18] Energy for Access Coalition (2019). Op. Cit.

[19] ESMAP. 2019. Mini Grids for Half a Billion People: Market Outlook and Handbook for Decision Makers.
Executive Summary. Energy Sector Management Assistance Program (ESMAP) Technical Report 014/19. Washington, DC: World Bank.

[20] ESMAP. 2020. Regulatory Indicators for Sustainable Energy (RISE) Sustaining the Momentum. Washington, DC: World Bank.

A number of persisting risks which results in underlying barriers for the market will need to be addressed[21]:

- **Energy Market Risk**: limitations and uncertainty in the energy market (off- and on-grid) regarding market outlook, access, price and competition;
- **Social Acceptance Risk**: lack of awareness and resistance to renewable energy and mini grids in communities;
- **Hardware Risk**: limitations in the quality and availability of mini grid hardware, as well as the customs treatment of hardware;
- **Labour Risk**: lack of skilled and qualified potential employees;
- **Developer Risk**: limitations in mini grids operator's management capability, and its creditworthiness and cash flow;
- **End-user Credit Risk**: customers' willingness, ability, and methods of payment for electricity;
- **Financing Risk**: scarcity of domestic investor capital (debt and equity) for mini grids, and domestic investors' lack of familiarity with mini grids and appropriate financing structures;
- **Currency Risk**: currency mismatch between domestic currency revenues and foreign currency financing;
- **Sovereign Risk**: mix of cross-cutting political, economic, institutional and social characteristics in the particular country which are not specific to mini grids.

A combination of policy and financial de-risking instruments with direct financial incentives can contribute to addressing these barriers and reducing the cost of mini grids. Frameworks for mini-grids and stand-alone systems have enjoyed fast-increasing policy support across countries, attesting to the growing understanding of their potential to accelerate electricity access[22]. Yet, significant political and public and private financial commitments are still necessary to deploy them at scale.

Electricity access can significantly help improve gender outcomes, by tackling the following gender inequality gaps: (i) drudgery and time saving for female-dominated labour intensive activities; (ii) employment for women who are more likely to gain employment outside the home following electrification; (iii) health and well-being especially when electrifying health clinics with positive impacts on maternal health, (iv) gender norms and community decision making around the mini grid system, (v) education and longer hours of study among children.

Clean cooking

In 2018, the global population without access to clean cooking fuels and technologies was 2.8 billion people, representing a rate of access of only 63%. Related household air pollution disproportionately affects the most vulnerable including women and children, and is a cause of at least 4 million deaths from noncommunicable diseases (including heart disease, stroke and cancer) per year, as well as childhood pneumonia. The use of traditional biomass for cooking also contributes to ecosystems

[21] UNDP & ETH Zurich (2018). Op cit.

[22] ESMAP. 2020. Regulatory Indicators for Sustainable Energy (RISE) Sustaining the Momentum. Washington, DC: World Bank.

degradation and to the emission of approximately 1 gigaton of CO2/year[23] (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)[24]. 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.

[23] Stockholm Energy Institute (SEI) (2013). Assessing the Climate Impacts of Cookstove Projects: Issues in Emissions Accounting, Policy Brief; SEI: Stockholm, Sweden.

[24] ESMAP. 2020. The State of Access to Modern Energy Cooking Services. Washington, DC: World Bank

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

Electricity Access

The post-Covid era will require continued focus on all three markets segments (grid extension, mini grids, and off-grid technologies) in parallel and should ideally be reflected in integrated energy plans, policy and regulatory frameworks. Network upgrades to improve reliability and quality of supply, intensification (increasing access where the network already exists) and expansion where the grid is deemed least cost (expansion to peri-urban areas mostly) and feasible to deliver reliable services. For rural areas and some peri-urban areas where network expansion is constrained or not the least cost option, mini grids can be regarded as the best option. For last mile customers in very small and dispersed communities off-grid solutions are likely the best option until they reach sufficient levels of electricity demand to justify the cost of deploying a mini grid. Energy sector planning needs to include expansion plans of all three market segments, including grid expansion, and deployment and business models for mini grids and off-grid solutions. Governments need to lead the way for electrification irrespective of whether it is through state-owned utilities or private sector participation. Such planning creates more certainty, which is critical for attracting private sector investments.

What is the role of dynamic Integrated Energy Planning tools to guide a least cost and rapid electrification process at the national and sub-national level? Can such a tool be developed and deployed rapidly at low cost and solve the existing data gaps? How can we ensure the availability and reliability of data to monitor energy access including tracking the reliability and affordability dimensions of access and gender considerations?

Mini grids and off-grid technologies are still fragmented segments*,* with mini grid projects in the past largely developed on an ad hoc and individual basis. However, the past few years have seen a rise in the rollout of comprehensive, large-scale national programs for electrifying rural populations, seeking to incorporate mini grids and off-grid technologies as complementary solution to grid extensions, guided by integrated energy plans. Governments have an important role to play in reducing policy and market barriers and promoting national approaches that ensure deployment at scale in combination with a competitive framework to further bring down costs.

How can we trigger a high-level commitment from governments to adopt long term dynamic integrated plans for energy access, with the enabling regulatory and policy framework which would allow the market to reach scale?

Electrification programs should be accompanied by support for productive use and business development, particularly focusing on women entrepreneurship and access to finance to help reduce gender inequalities. Such support would also help to improve financial sustainbility of electrification programs, reduce the need for subsidies, and help attract private sector investments.

What interventions are required to stimulate demand and create opportunities for productive use of electricity, including cooling/heating solutions and the electrification of health and education facilties?

Finance for energy access has not yet reached the level required to close the energy access gap by 2030, which is estimated at USD41 billion of annual investment for universal residential electrification.

Only USD16 billion was tracked in the High Impact Countries in 2018[25]. Furthermore, financing for SDG 7 remains uneven, requiring special attention to LDCs, LLDCs and SIDS to leave no one behind. International public financial flows to developing countries in support of clean and renewable energy reached $21.4 billion in 2017, a two-fold increase from in 2010. Yet, only a small proportion reached the countries most in need, such as Least Developed Countries, Landlocked Developing Countries and Small Island Developing States.

How can we mobilize the level of public and private investment for energy access? (Link with TWG 5: Finance and Investment).

Even if the above approaches will be fully successful, there will be a sizable number of people that won't be reached. We need tailored solutions to ensure that truly no one will be left behind. A significant number of people (estimates range in the order of 100 million households, which date from before COVID-19 and this number may have gone up now) are simply too poor to even afford a tier 1 solution. In addition, the number of refugees and other displaced populations continues to grow, and the stress this places on host communities. There is an urgent need to find solutions to provide energy services in those contexts.

How can we ensure the inclusion of poor and vulnerable people allowing them to access energy services? What is the best approach to providing sustainable energy services in fragile settings?

The ability to pay for energy services and end-user credit risk remain an important limiting factor for the private sector to scale up investment for energy access.

What solutions can be deployed to reduce these risks and increase predictability for both households and productive use?

COVID-19 has put additional pressure on the global economy. As countries are developing and implementing their recovery strategies, *can energy access investment play a central role?*

Clean cooking

The political attention around access to clean cooking is still far from matching up the scale and intensity of the problem. If progress is to be achieved at scale, strategic leadership and awareness raising will need to take a whole new dimension and involve governments along with the full range of their development partners including the private sector. The creation of a High-Level Coalition on Health and Energy in the scope of the Health and Energy Platform for Action (HEPA) constitutes a positive first step to leverage political support but needs to get further traction.

How to increase political will and ensure clean cooking is not overlooked by policy makers?

As of 2020, less than a quarter of the access-deficit countries, but half of the population without access to clean cooking have advanced policy frameworks for clean cooking. While a correlation can be observed in most countries between the level of income and the maturity of the clean cooking policy framework, exceptions show that prioritizing the policy agenda is not enough. Policy derisking instruments to sustainably reduce existing barriers, associated with financial derisking instruments to

[25] SEforALL, CPI, (2020). Energizing Finance: Understanding the Landscape 2020

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

How to increase the adoption, effectiveness and robustness of policy frameworks on clean cooking and what is required to complement them to achieve downstream impacts?

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.

What can be done to further promote innovative business models and facilitate the scale-up of more successful ones?

Scaling up access to clean cooking means moving away from traditional biomass-based fuels and cookstoves to adopt cleaner solutions (biogas, LPG and electricity) and more efficient cookstoves. This transition will require time and may be facilitated by a phased approach, whereby interim solutions (such as quality-assured biomass stoves) will allow to mitigate in the short term the worst adverse impacts of traditional biomass-based cooking methods. There is also a need to transition from the binary approach of measuring clean cooking access to a multi-dimensional one using for instance the Multi-Tier Framework developed by the World Bank to consider aspects such as user behavior, cooking conditions, the use of multiple cooking solutions, etc. This will allow to get a better sense of the baseline and design better-informed interventions.

How could this phased approach be concretely delivered to achieve universal access by 2030?

Access to clean cooking and electricity has in general been treated separately, through different project interventions, workstreams, technology solutions, business models etc. National energy planning and strategy development need to include and formalize cooking energy demand as a core component along with electrification planning.

How could an integrated household level energy approach including both clean cooking and electricity solution, accelerate the adoption of clean technologies?

Ultimately, there may be a need to realize that the access challenge goes far beyond technology and finance – often the main areas of focus – and results for a large part from the "human factor", i.e., considerations around economic models, politics, traditions, education and the overall culture of energy. Solutions must be user-centered and prioritize user preferences, gender and local cooking contexts to address longstanding barriers to the adoption of modern cooking solutions. The lack of access is defined by an absence of fully appreciating the everyday implications for the people without clean cooking solutions.

How could the discussion be reoriented to better consider the urgent needs of vulnerable people and lost opportunities for societal and ecosystem welfare?

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.

Group priorities

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, Malawi, Myanmar, Mozambique, Niger, Nigeria, Sudan, Tanzania, Uganda

Annex - High Level Dialogue on Energy 2021

Concept Note Formats and Guidelines for the Operationalisation of all Technical Working Groups

Goal of Technical Working Groups

To produce action-oriented, operational-focused Thematic Reports with targeted recommendations for the 2025 interim milestones, the 2030 SDG7 targets and net-zero emissions by 2050.

Overall Objective of Technical Working Groups

To create the conditions in the wider systems of energy for mutual learning to challenge habits and enable profound shifts in mindsets and attitudes for the possibilities of new patterns of behaviours and relationships, and actions and investments, to accelerate progress towards the 2025 interim milestones, achieving SDG7 by 2030 and net-zero by 2050 for everyone, everywhere.

Guiding Conditions for Technical Working Groups

1. Human-centric development mindset, with the spirit of solidarity for all people
2. Shifting perceptions and attitudes from competition to collective action, including within the Technical Working Groups and the Global Theme Champions
3. Working towards multiple solutions within and across Themes, not seeking to solve one Theme-specific problem at a time
4. Enabling the conditions for systemic change rather than incremental change, and working to end systemic energy injustice in all its forms
5. Rather than getting stuck in old patterns and old thinking, instead adding new contexts to go beyond entrenched zero-sum positions

Overall Questions for Technical Working Groups

Is there an unconditional commitment by the Co-Leads, Global Thematic Champions and Members to…

- build authentic relationships to address the deep challenges that are rooted in the relational contexts between nations?
- open a window of flexibility in which people can experiment with even the most unlikely of possibilities to solve multiple energy challenges simultaneously whilst enabling the achievement of the SDGs?
- be able to perceive new patterns of meaning and action with less fear and with wider circles of compassion and urgency for action for those most in need?
- be asking “what’s in it for us, all of us?”, rather than “what’s in it for me?”

We must find ways to, work across the Technical Working Groups, to learn quickly, by challenging deeply embedded habits on energy so that fresh ideas and outcomes are possible.

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

I. Energy Access Technical Working Group Report

This Theme Report is to be developed by the Technical Working Group for *Theme I. Energy Access*, 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

1) Goal

*Present the overall goal and targets for **Theme I (Energy Access)**, setting clear ambition in support of the 2030 Agenda, the Paris Agreement, the achievement of SDG 7 by 2030, and net-zero emissions by 2050. Approx. 1,000 words in total.*

2) Context

*Introductory section with a state of the sector assessment, providing background and current landscape of **Theme I (Energy Access)**. Approx. 1,000 words in total.*

3) Challenges

*Identification of critical barriers to progress in **Theme I (Energy Access)**. These may be categorised, e.g., as political, policy and regulatory, financial, market design, and/or behavioural, and levels of urgency can be attached to each barrier, with due consideration to the different circumstances of countries and regions. Approx. 2,000 words in total.*

4) Recommendations/Plan of Action

A proposed menu of ambitious and concrete solutions and policy options that will contribute towards a global roadmap towards the achievement of SDG 7 by 2030 and net-zero emissions by 2050; and respond to the challenges identified in Section (3), taking into account unique and diverse challenges faced across counties/regions. Provision of concrete examples of transformational action, including where possible implementation details and potential co-benefits. Approx. 5,000-6,000 words in total.

5) Impacts

Assessment of catalytic potential impacts of the proposed recommendations on SDG7 in support of the SDGs and net-zero emissions by 2050. Approx. 1,000-2,000 words in total.

6) References