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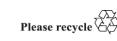
Management response to the evaluation of UNDP support to energy access and transition

I. Introduction

- 1. The UNDP Independent Evaluation Office conducted the first comprehensive analysis of the contribution of UNDP to access to energy and the transition to renewable forms of energy (DP/2022/9). UNDP support for energy dates to the 1990s and has long been linked to the organization's environmental and development objectives.
- 2. The evaluation is expected to inform the positioning of UNDP vis-à-vis the United Nations system-wide strategic document to support implementation of the 2030 Agenda for Sustainable Development; and relevant Sustainable Development Goals, the operationalization of the UNDP Strategic Plan, 2022-2025 and the planning and implementation of country programmes and partnerships. It is also intended to inform the UNDP response to the United Nations High-level Dialogue on Energy, through which Member States and other stakeholders renewed their commitment to reach Goal 7 by 2030
- 3. The evaluation aims to provide UNDP management and programme stakeholders with an independent assessment of the effectiveness of UNDP work on energy access and transition; the relevance of UNDP work in this area; and the opportunities to support the strategic positioning and performance of UNDP work on energy as one of the six signature solutions in the Strategic Plan.

II. Energy access and transition: a global context

4. Access to energy is a precondition for health, education and economic prosperity, an essential multiplier for the Sustainable Development Goals. Sustainable energy is also key to driving progress across other Goals, including but not limited to no poverty (Goal 1), zero hunger (Goal 2), good health and well-being (Goal 3), quality education (Goal 4), gender equity (Goal 5), decent work and economic growth (Goal 8), industry, innovation and infrastructure (Goal 9) and reduced inequalities (Goal 10). While access to energy is at the core of affordable and clean energy (Goal 7), it is also critical and relevant in the context of sustainable cities and communities (Goal 11), climate action (Goal 13) and life below water (Goal 14), among others.







- 5. However, as of 2019, 759 million people do not have access to any form of electricity, equivalent to 1 in 10 people worldwide. Of these, 75 per cent live in sub-Saharan Africa. A further 2.6 billion people roughly one in three people worldwide lack access to clean technologies and fuels for cooking (referred to as "clean cooking"). Pollution from open fires or stoves is linked to the premature deaths of 3.8 million people.
- 6. At the same time, the consequences of climate change keep increasing. The years between 2010 and 2020 were the hottest on record, and the significant increase in extreme weather events often impacted the most vulnerable parts of the world. According to the World Resources Institute,⁴ energy consumption is by far the biggest source of human-caused greenhouse gas emissions, responsible for 73 per cent of such emissions globally. Energy sector mitigation actions are thus central to nationally determined contributions and often represent the single largest opportunity for countries to advance their mitigation and socioeconomic ambitions. Scaled-up clean energy investments and solutions are at the nexus of both challenges and key to realizing the ambitions of Sustainable Development Goal 7, to "ensure access to affordable, reliable, sustainable and modern energy for all" by 2030.
- 7. Transitioning to a sustainable and net-zero energy system by 2050 requires annual investments in clean energy (worldwide) to more than triple by 2030, to around \$4 trillion. However, recent estimates from the Sustainable Energy for All "Energizing Finance" for research series show that the world is falling far short of the level of investment required to achieve energy access for all. More specifically:
- (a) Finance for electricity in the high-impact countries the 20 sub-Saharan African and Asian countries, which together are home to more than 80 per cent of the people globally who lack energy access declined substantially in 2019 to \$32 billion from \$43.6 billion in 2018, and the amount of finance committed to residential electricity access fell to \$12.9 billion, less than one third of the estimated annual investment of \$41 billion needed to attain universal electricity access by 2030;
- (b) Investment in clean cooking has also stagnated, falling critically short of the \$4.5 billion in annual investment required for universal access. Annual tracked commitments to clean cooking in high-impact countries languished at around \$130 million between 2015 and 2019 (except in 2017 when commitments dropped precipitously to less than \$50 million), and the overall clean cooking investment portfolio continues to be dominated by a few large projects in a small number of countries, funded by a handful of capital providers.
- 8. These deficits in finance call for renewed commitment and partnerships to finance energy access, particularly in countries with the highest levels of energy poverty and realize the ambitions of Sustainable Development Goal 7.

III. UNDP support for sustainable energy

9. UNDP works with 170 countries and territories to: (a) support countries to achieve Sustainable Development Goal 7, ensure access to affordable, reliable, sustainable and modern energy for all by 2030; and (b) to ensure a just and sustainable energy transition. To date, the proportion of the UNDP energy portfolio from vertical funds (i.e., consisting of Global Environment Facility (GEF) and Green Climate Fund (GCF) projects) amounts to \$541 million,

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¹ International Energy Agency (IEA) et al. 2021. Tracking SDG 7: The Energy Progress Report. World Bank, Washington DC. Available at: https://trackingsdg7.esmap.org/

² IEA (2020). SDG7: Data and Projections, IEA, Paris. Available at: https://www.iea.org/reports/sdg7-data-and-projections

³ World Health Organization (2021). Factsheet: Household air pollution and health. Available at: https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health

⁴ World Resources Institute (2020). Available at: https://www.wri.org/insights/4-charts-explain-greenhouse-gas-emissions-countries-and-sectors

⁵ IEA. 2021. Net Zero by 2050. A Roadmap for the Global Energy Sector. Available at: https://www.iea.org/reports/net-zero-by-2050

⁶ Sustainable Energy for All (2021). Energizing Finance – Understanding the Landscape 2021. Available at: https://www.seforall.org/publications/energizing-finance-understanding-the-landscape-2021

composed of \$384 million under implementation, \$30 million approved and \$127 million in hard pipeline.⁷

- 10. Over the years, UNDP energy work has focused on three areas:
- (a) Supporting low-income countries to improve energy access through off-grid electrification at the community level, and the electrification of health facilities;
- (b) Supporting middle-income countries to accelerate their energy transition. This includes supporting countries to submit and implement their nationally determined contributions as part of the Climate Promise; helping cities become more sustainable through integrated urban planning, the promotion of electric mobility and increased energy efficiency in buildings; and developing a new offer to support countries to reform fossil fuel subsidies in a socially and economically fair way;
- (c) Working in fragile and crisis settings to improve energy resilience for displaced and vulnerable communities.
- 11. First, looking ahead (and as stated in the Strategic Plan, 2022-2025⁸), the objective of UNDP work on energy is to increase energy access for those furthest behind. By speeding up investment in distributed renewable energy solutions, especially for those hardest to reach and in crisis contexts, UNDP aims to increase access to clean and affordable energy for 500 million people. The Africa Mini-Grid Market Acceleration Programme, for example, is improving the financial viability of renewable energy mini-grids in 18 countries, encouraging private investment, lower tariffs and expanded service.
- 12. Second, UNDP works to accelerate the transition to renewable energy through systems changes that support inclusive, green economies, particularly in countries with low levels of renewable energy generation or poor energy-efficiency improvement rates. This work will capitalize on technological gains, clean energy innovations and new business models in the energy sector.
- 13. Change will be disruptive. Decreasing fossil fuel subsidies or shifting investment incentives, for example, will create winners and losers. UNDP will work to ensure that such transitions are fair, their impact on the vulnerable understood and mitigated. By adopting a human-centred approach, for example taking productive use of energy as an entry point rather than technical challenges, connections with areas like poverty or gender equality will naturally emerge, enabling a more integrated approach.
- 14. To realize these ambitions, UNDP has pledged to mobilize the entire United Nations system, Member States, financial institutions, private sector companies and businesses to accelerate progress towards Sustainable Development Goal 7 and other Goals, focusing on those furthest behind through strategic partnerships and targeted stakeholder engagement. Examples of UNDP flagship energy sector initiatives and partnerships are described below.
- 15. The Africa Mini-Grid Programme offers an opportunity to close the energy access gap at scale. It is a country-led technical assistance programme for mini-grids, active in an initial 18 African countries. The programme's objective is to support access to clean energy by increasing the financial viability of, and promoting scaled-up commercial investment in, low-carbon mini-grids in Africa, with a focus on cost reduction levers and innovative business models. The programme is expressly targeting early-stage mini-grid markets, seeking to establish the enabling environment for subsequent private investment at scale. Implementation will begin in 2021 in two cohorts of countries: Angola, Burkina Faso, Comoros, Djibouti, Ethiopia, Eswatini, Madagascar, Malawi, Nigeria, Somalia and Sudan (first cohort); and Benin, Chad, Mali, Mauritania, Niger, Sao Tome and Principe and Zambia (second cohort). These 18 countries together are home to an estimated 312 million people without electricity, more than half of the 548 million people

⁷ To ensure improved visibility of the entire UNDP energy portfolio, data collection on UNDP non-vertical fund projects is currently underway, in consultation with regional teams and country offices.

⁸ UNDP (2022). UNDP Strategic Plan, 2022-2025. Available at: https://www.undp.org/publications/undp-strategic-plan-2022-2025.

currently without access to electricity in sub-Saharan Africa. It is the most ambitious UNDP energy access programme to date, one of the biggest off-grid electrification technical assistance programmes in the region and it has the potential to be scaled even further.

- 16. The UNDP energy offer for the Sahel aims to ensure that Africa can harness its energy potential for sustainable development in the Sahel. In 2020, 18 United Nations agencies joined forces under the leadership of UNDP to develop, as part of the United Nations Integrated Strategy for the Sahel, a framework to spur economic growth through increased access to renewable energy. Aligned with this framework, UNDP is about to launch an ambitious programme to enhance the enabling environment for the deployment of off-grid renewable energy solutions, accelerate access to sustainable energy for productive use and basic services for vulnerable communities in the Sahel and trigger sustained socioeconomic development in rural areas, through a holistic ecovillage approach. In collaboration with Sustainable Energy for All, this new partnership aims to unlock public and private investments towards affordable and sustainable energy access for all people in Africa, particularly in the Sahel. The programme aims to leverage new partnerships that can support bolder interventions that promote sustainable energy and development pathways in the Sahel.
- 17. The Solar for Health programme is addressing inequalities and vulnerabilities in health systems across the world. Today, 59 per cent of all health facilities in low- and middle-income countries lack access to reliable energy services, and the recent multi-tier framework assessment in six countries estimates that around 25 per cent of health facilities lack power altogether. Worldwide, more than 289,000 women die every year from pregnancy- and childbirth-related complications, many of which could have been averted with the provision of better lighting and other electricity-dependent medical services. Since 2017, UNDP and its partners have supported 15 countries, including 11 in sub-Saharan Africa, to equip health facilities with solar photovoltaic systems. To date, over 1,000 health facilities have gained access to clean, affordable and reliable electricity through this initiative, ensuring continuity of services without life-threatening power cuts and cold-storage solutions for vaccines, including facilities that were previously impacted by the coronavirus disease (COVID-19) pandemic. This has also enabled health facilities to cut energy costs and reinvest this money in health services. To scale up future work, UNDP aims to implement innovative business and financing models as part of the Solar for Health initiative, e.g., developing energy as a service approach, which is currently being explored in five countries (Liberia, Malawi, Namibia, Zambia and Zimbabwe).
- 18. The High-Level Dialogue on Energy, held on 24 September 2021, was the first global gathering on energy under the auspices of the General Assembly since 1981. The dialogue represented a global commitment to catalyse transformative action to ensure access to clean and affordable energy services for all by 2030 and accelerate the energy transition towards net-zero emissions by 2050. The Administrator is the co-Chair of UN-Energy and was co-Chair of the High-Level Dialogue. As co-lead of the dialogue's working group on energy access, UNDP has spearheaded efforts to accelerate global action for sustainable energy for all.
- 19. The dialogue was attended by participants from 109 countries including 43 Heads of State and 39 other leaders from business and civil society. More than 150 energy compacts from national and local governments, businesses, foundations and international, civil society and youth organizations were submitted for the dialogue.
- 20. National Governments and the private sector committed more than \$400 billion in clean energy funding, both for access and transition; and partnerships including by foundations and industry associations aimed to leverage additional finance for Sustainable Development Goal 7. On energy access, national Governments committed to provide reliable electricity to over 166 million people worldwide; private companies pledged to reach just over 200 million people; and

⁹ Angola, Chad, India, Lebanon, Liberia, Libya, Malawi, Namibia, Nepal, South Sudan, Sudan, Uganda, Yemen, Zambia, and Zimbabwe.

foundations and business associations promised to pursue partnerships to reach hundreds of millions of additional people.

- 21. The "Global Roadmap for Accelerated SDG7 Action in support of the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change", released by the Secretary-General on 3 November 2021, outlines the critical milestones the world needs to achieve to reach global clean energy targets, including the following priorities:
- (a) Ending the construction and development of new coal power plants post 2021;
- (b) 500 million more people gain access to electricity and 1 billion more people gain access to clean cooking solutions by 2025;
- (c) Fossil fuel consumption subsidies to be redirected towards renewable energy and energy efficiency;
- (d) Doubling annual investments in renewables and energy efficiency globally to ensure a 100 per cent increase in global renewable energy capacity;
- (e) 30 million jobs to be created in the renewable energy and energy efficiency sectors.

IV. Findings and conclusions of the evaluation

- 22. UNDP welcomes the evaluation's findings to inform its work on sustainable energy in line with the new Strategic Plan, 2022-2025, endorsed in September 2021, and the establishment of the new UNDP Sustainable Energy Hub.
- 23. UNDP notes that its domain expertise across energy access and transition has a track record of success, not only in programming but also in providing thought leadership and advancing dialogue and action on energy on the global stage, including through the role of the Administrator as co-Chair of UN-Energy and more recently as co-Chair of the High-Level Dialogue on Energy. The High-Level Dialogue marked the first such convening at this level in 40 years, providing an opportunity to raise global awareness and concrete action on Sustainable Development Goal 7 as a lever for the achievement of multiple Goals and the Paris Agreement on Climate Change Agreement.
- 24. The new UNDP Sustainable Energy Hub (or the "Energy Hub") represents the organization's systematic and programmatic approach to respond to the energy and climate change agenda. The Energy Hub will harness networks, experience and innovation to help 500 million additional people gain access and transition to clean, reliable and affordable energy by 2030, and will prioritize countries and regions with the highest levels of energy poverty. The Energy Hub will work with Governments in programme countries as they recover and build forward better from COVID-19 and with investors to unlock and harness public and private finance to power progress towards the Sustainable Development Goals.
- 25. UNDP agrees with recommendation 1 to "detail its strategic and programmatic approach to energy in an action plan that clearly articulates how it will support national Governments to achieve their Sustainable Development Goal 7 targets". The recently formed Sustainable Energy Hub represents the systematic and programmatic approach of UNDP to responding to the energy and climate change agenda in programme countries. The Energy Hub is designed to harness networks, experience and innovation to help 500 million additional people gain access and transition to clean, reliable and affordable energy by 2030, and will prioritize actions in countries and regions with the highest levels of energy poverty. The Energy Hub will work with Governments in programme countries as they build forward better from COVID-19, and with investors to unlock and harness public and private finance to power progress towards the Sustainable Development Goals. The programming objectives of the Energy Hub, including its operational structure and new flagship initiatives, are detailed in chapter V below.
- 26. UNDP agrees with recommendation 2 to "update its value proposition on access to energy and transition to low-carbon technologies, expanding its role as a convenor and

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- delivery agent for complex energy project initiatives that incubate innovations and put in place sustainable pro-poor energy policies". UNDP support to countries via the Energy Hub will focus on all countries but especially those that are furthest behind on energy access. UNDP will be working with key partners in UN-Energy as well as new partnerships with multilateral development banks, international financial institutions (African Development Bank, World Bank), global funds (GEF, GCF), the private sector, foundations (Rockefeller Foundation) and others to strengthen local capacities to respond to urgent energy access needs.
- 27. UNDP welcomes recommendation 3 that "UNDP energy access initiatives should contain formal design components that respond to the user and local experience of energy initiatives, and it should monitor how its energy services lead to sustainable and pro-poor benefits". The UNDP commitment to increase access to clean and affordable energy for 500 million people will rely on strengthened and expanded partnerships across public and private sectors, including international development organizations and financial institutions, philanthropy and other key stakeholders. UNDP support to countries via the Sustainable Energy Hub will include a digital platform that will enable near real-time monitoring of energy delivery and track the quality of service, as well as broader, interlinked sustainable development impacts on areas such as access to health and education.
- 28. UNDP agrees with recommendation 4 that "UNDP should establish itself as a global thought leader in sustainable pro-poor energy and transition approaches, adopting a step change in ambition and targeting support to the least developed and middle-income economies that are highly exposed to a global transition to low-carbon energy". UNDP will leverage its expertise and on-the-ground knowledge to support Governments with a holistic view of policy options and frameworks to help guide a clean, inclusive energy transition and quantify the benefits and impacts. This includes understanding the distributional impacts of policy reforms including those related to fossil fuel subsidies and carbon pricing; options to limit adverse impacts on vulnerable groups; and support to develop a well-communicated and coordinated policy implementation with evidenced-based advocacy and outreach.
- 29. UNDP agrees with recommendation 5 that "UNDP should review its approaches to supporting energy access in crisis and fragile settings and develop formal principles and guidelines for addressing immediate energy needs within a more comprehensive plan for recovery and green transition". UNDP will leverage its expertise and experience in conflict and fragile settings through the Energy Hub. UNDP work in fragile and crisis settings will be context-specific and interventions will be adequately and appropriately sequenced and layered with wider development and humanitarian response efforts.
- 30. UNDP agrees with recommendation 6 to "promote a greater integration of gender considerations and more targeted gender guidance for its energy programming, and move away from the assumption that women will automatically benefit if they are simply included in energy initiatives". UNDP has incorporated gender as a key performance indicator (KPI) for the Sustainable Energy Hub, in terms of both its own capacities but also of its support to womenheaded households and micro-, small and medium-sized enterprises; the access women and girls have to education, skills development and jobs in the clean energy sector; and the wider development impacts that come with the provision of clean energy, most notably in the provision of clean cooking solutions.
- 31. UNDP agrees with recommendation 7 to "map where energy investments are needed, by region, to develop a holistic strategy of support to match the most appropriate funding model and resource mobilization strategy for the context". The strategy under the Energy Hub will be to work with countries' integrated national financing frameworks and nationally determined contributions as part of a "holistic strategy of support". The solution put forward by UNDP is to promote investment in clean energy by supporting countries to access abundant, low-cost commercial capital through policy de-risking. Financial resources for clean energy are limited, while the investment needs are enormous. These public resources need to catalyse far larger private financial flows if there is to be a widespread adoption of clean energy. Recognizing that transparent, clear and long-term targets, policies and regulations are key for private sector

investment, and building on its expertise, partnerships and on-the-ground network, UNDP will focus on policy de-risking to support Governments to design, implement and enforce policies and regulations. UNDP also works with financial and national partners on complementary financial de-risking and financial incentives, to achieve the most cost-efficient overall approach to attracting investment.

V. The future of UNDP support to sustainable energy

- 32. The UNDP Sustainable Energy Hub is anchored on the bold ambition and commitment to:
- (a) Close the gap on energy access so that marginalized people and communities gain access to sustainable, clean energy and the dignity and opportunities it brings;
- (b) Drive innovation and resilience in energy value chains to speed up investments in energy access in off-grid and fragile contexts. This includes the development and deployment of alternative business models to support off-grid solutions;
- (c) Accelerate an energy transition from fossil fuels through system changes that support a green recovery and bring together the best ideas from the worlds of government, business and finance.
- 33. The Energy Hub brings together all parts of UNDP, in an integrated fashion, working across teams and taking a whole-systems perspective in addressing energy challenges. Work under the Energy Hub will focus on the following five service lines:
- (a) Policy advisory services: designing effective policies and regulations to enable clean energy investment;
- (b) Digital transformation and artificial intelligence: developing and deploying digital tools to enhance the ability of Governments and project proponents for energy planning, project preparation, investment mobilization and results tracking;
- (c) Innovative business models and financial instruments: advisory services to support the structuring of innovative business models and financial instruments to accelerate energy access and the clean energy transition;
- (d) Integrated approaches for the Sustainable Development Goals and the Paris Agreement: helping clients to tackle complex development challenges and achieve the Goals and the climate change targets of the Paris Agreement through integration of the Goals and the clean energy nexus of water, health, gender, poverty, agriculture, etc.;
- (e) Energy leadership, linking and planning within the United Nations system and beyond: providing a platform to
- (f) connect key stakeholders and partners in the energy sector, including the role of UNDP in UN-Energy, the High-Level Dialogue on Energy and the Health and Energy Platform of Action.
- 34. With energy being one of the six signature solutions of the Strategic Plan, 2022-2025, the Energy Hub will leverage the organization's diverse portfolio of clean, affordable energy initiatives in over 100 countries to scale up support to programme countries on Sustainable Development Goal 7. Priorities will include harnessing linkages between energy and other sectors, or targeted initiatives such as the UNDP scaled support to small island developing States through its "Rising up for SIDS" initiative, among others.
- 35. UNDP will leverage its expertise and on-the-ground knowledge to support Governments with a holistic view of policy options and frameworks to help guide a clean, inclusive energy transition and quantify the benefits and impacts. This includes understanding the distributional impacts of policy reforms, including those related to fossil fuel subsidies and carbon pricing; options to limit adverse impacts on vulnerable groups; and developing well-communicated and coordinated policy implementation with evidenced-based advocacy and outreach.

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- 36. On procurement, UNDP will deploy its own operational capacity including energy procurement as well as strengthened fiduciary oversight systems. A clear link will be made to help advance green procurement, to ensure that projects are implemented with the lowest environmental impact and support significant socioeconomic gains in countries.
- 37. The Energy Hub will also focus on the "last mile", ensuring those that are furthest behind are put first. UNDP will work with key partners in UN-Energy and in new partnerships with multilateral development banks and international financial institutions (African Development Bank, Asian Development Bank, Inter-American Development Bank, World Bank and others), global funds (GCF, GEF), the private sector, foundations (Rockefeller Foundation) and civil society organizations to strengthen local capacities to respond to urgent energy access needs.
- 38. For example, through existing programmes like the Africa Mini-Grid Programme (described in chapter III), the Energy Hub will leverage and expand existing and new partnerships with the private sector. The Energy Hub will partner with firms such as Microsoft to create a new data insights platform for data collection, analysis, visualizations and insights to support Governments (particularly with COVID-19 socioeconomic recovery). The Microsoft partnership also offers scope to build a robust data architecture and action plan on climate, energy and environmental sustainability, which includes data to advance off-grid energy access.
- 39. At the same time, the Energy Hub will spearhead the following new flagship offerings, including the UNDP fossil fuel subsidy reform and new financing and carbon pricing facilities.
- 40. The UNDP fossil fuel subsidy reform initiative is supporting countries with a comprehensive suite of services, recently developed and launched, to enable a transition away from fossil fuels. The initiative supports both internal clients (notably UNDP country offices and other United Nations agencies) and external clients (most importantly, Governments). While the focus is on fossil fuels, the offer could be extended to support electricity subsidy reforms, which may be of relevance to some countries. This new offer was launched alongside the UNDP "Don't Choose Extinction" campaign on 27 October 2021 together with various flagship publications and products. 11
- 41. New financing facilities are to be developed with various financial partners. To achieve the most cost-efficient overall approach to attracting investment, UNDP is working with financial and national partners on complementary financial de-risking and financial incentives. For example, through the UNDP partnership with the Caribbean Development Bank, the "Transforming Finance to Unlock Climate Action in the Caribbean" project being implemented in Belize, Jamaica and Saint Lucia, concessional lines of credit will be available to national development banks for on-lending to micro, small and medium-sized enterprises for climate action investments. UNDP is supporting the formulation of the programme and will support the execution of the technical assistance component.
- 42. The "carbon payments for development" facility will support countries in achieving ambitious targets of nationally determined contributions and long-term strategies of the Paris Agreement. Through this facility, UNDP aims to promote ambitious climate action with a focus on energy-based mitigation approaches by supporting programme countries to implement their climate plans, aligned with the Paris Agreement. Through a performance-based payment

¹⁰ https://dontchooseextinction.com/en/

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Products and offerings under the UNDP fossil fuel subsidy reform initiative include: (i) Fossil Fuel Subsidy Reform: Lessons and Opportunities, a publication which offers key policy recommendations for designing and implementing subsidy reform in a progressive way that does not increase poverty and is socially just and economically fair, drawing insights from five case studies (Chile, France, Ghana, Islamic Republic of Iran, Indonesia); (ii) A Guide to Carbon Pricing and Fossil Fuel Subsidy Reform: A Summary for Policymakers, which explores and compares different types of policy instruments that can support countries in strategically designing integrated approaches to achieve emissions reductions and national development targets; (iii) Alternative Uses of Pre-Tax Fossil Fuel Subsidies Per Year, which provides a strong overview of the current status of fossil fuel subsidies as well as an analysis of how the \$423 billion spent on fossil fuel subsidies could be repurposed for social good, to eradicate extreme poverty, provide a temporary basic income and vaccinate the world; and (iv) a fossil fuel subsidy reform simulator to allow users to explore how reforming fossil fuel subsidies could free resources for other development priorities.

modality, the facility will de-risk and incentivize private sector investments into projects that directly contribute towards countries' conditional nationally determined contributions. By targeting a private sector-driven approach to implementation of these contributions, UNDP will stimulate lasting changes to the economies of programme countries and catalyse sustainable low-carbon development, including job creation. These investments will drive market growth, supporting a green recovery from the COVID-19 crisis. Recent research indicates that speedy results and targeting project types that deliver both climate and economic goals are critical components to achieving green economic recoveries. This facility has been designed to do just that: deliver climate and social impacts quickly and at scale.

43. Finally, UNDP will leverage its expertise and experience in conflict and fragile settings to ensure that support through the Energy Hub is context-specific and interventions are adequately and appropriately sequenced and layered with wider development and humanitarian response efforts. Furthermore, UNDP has incorporated gender as a KPI for the Energy Hub to ensure the tracking of gender indicators and impacts (e.g., education, job creation and improved skills for women and girls, and the wider development impacts from clean energy investments).

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Annex. Key evaluation recommendations and management response

Recommendation 1. UNDP should detail its strategic and programmatic approach to energy in an action plan that clearly articulates how it will support national Governments to achieve their Sustainable Development Goal 7 targets.

- 1. The plan should focus on ensuring that energy initiatives launched over the next eight years lead to sustainable results, through national ownership, better connection between upstream advice and downstream opportunities, and new models of consistent engagement with public and private entities. UNDP should retain its focus on context specificity but with greater guidance and instruments that allow country offices to: (a) design initiatives that systematically address the enablers and barriers to scaling up energy initiatives; and (b) build project pipelines that sequence these activities over the time frames in which energy sectors and markets typically reach readiness for the wider adoption of policies and technologies.
- 2. Areas that merit greater attention include: (a) the promotion of uptake models of energy technology and systems in geographic areas where the energy grid is unlikely to reach in the next three to five years; (b) the potential to leverage UNDP energy procurement; (c) mitigating the impact of climate change on renewable production and infrastructure; and (d) the UNDP position on, and engagement with, the digitalization of energy services. The action plan should clearly distinguish UNDP from other players, detailing its updated value proposition and subsequent partnership strategy. Additional staff with deep energy sector expertise and skills will be needed at regional and country levels.

Management response:

UNDP fully accepts recommendation 1.

The recently formed Sustainable Energy Hub (referred to as the "Energy Hub" in this management response) represents the systematic and programmatic approach of UNDP to respond to the energy and climate change agenda in programme countries. The Energy Hub is designed to harness networks, experience and innovation to help 500 million additional people gain access and transition to clean, reliable and affordable energy by 2030, and will prioritize actions in countries and regions with the highest levels of energy poverty. The Energy Hub will work with Governments in programme countries as they build forward better from COVID-19 and with investors, to unlock and harness public and private finance to power progress towards the Sustainable Development Goals. Specifically, it will help UNDP partners to do three things:

- 1. Close the gap on energy access so that marginalized people and communities gain access to sustainable, clean energy and the dignity and opportunities it brings;
- 2. Drive innovation in energy value chains to speed up investments in energy access in off-grid and fragile contexts. This includes the development and deployment of alternative business models to support off-grid solutions;
- 3. Accelerate an energy transition from fossil fuels through system changes that support a green recovery and bring together the best ideas from the worlds of government, business and finance.

With energy being one of the six signature solutions of the Strategic Plan, the Energy Hub will leverage the organization's diverse portfolio of clean, affordable energy initiatives in over 100 countries to scale up support to programme countries on Sustainable Development Goal 7 – affordable and clean energy – in this decade of action. UNDP will work in partnership including within UN-Energy, to deploy its own operational capacity including on energy procurement as well as strengthened fiduciary oversight systems. A clear link will be made to help advance green procurement, to ensure that projects are implemented with the lowest environmental impact and support significant socioeconomic gains in countries.

Key action(s)	Time frame	Responsible unit(s)	Tracking	
·			Comments	Status
1.1. Develop global strategy and action plan	December 2021	Bureau for Policy and		
for the UNDP Sustainable Energy Hub		Programme Support		
		Regional bureaux		
1.2. Develop partnership and engagement	March 2022	Bureau for Policy and		
strategy for the Sustainable Energy Hub		Programme Support		
		Regional bureaux		
1.3. Design and deploy new business models and	December 2025	Country offices with support		
partnerships in the deployment of clean energy in		from the Bureau for Policy		
off-grid contexts		and Programme Support		
1.4. Integrate sustainable procurement practices	December 2025	Bureau for Policy and		
during project design and implementation by: (a)		Programme Support		
promoting the uptake models of energy technology		Bureau for Management		
and systems in geographic areas where the energy		Services		
grid is unlikely to reach in the next three to five				
years; (b) leveraging of UNDP energy procurement;				
and (c) expanding and clarifying with guidance the				
approaches to mitigate the impact of climate change				
on renewable production.				

Recommendation 2. UNDP should update its value proposition on access to energy and transition to low-carbon technologies, expanding its role as a convenor and delivery agent for complex energy project initiatives that incubate innovations and put in place sustainable pro-poor energy policies.

UNDP should systematically identify underdeveloped contexts and countries that would benefit from its capacity as a facilitator, working across government, donor partners, the private sector and subnational entities. In framing this facilitator role, UNDP should support Governments to create plans for long-term barrier removal, investment and capacity development, aiming for far-reaching energy sector transformations. It should encourage "leap frogging" to more advanced access and efficiency measures, improvement to and delivery of the nationally determined contributions, and helping Governments to access and translate appropriate sources of funding into downstream projects.

UNDP should focus greater attention on its work of advising on policy development, especially the economic policies that affect the cost and marketability of renewables and the assessment and regulations which ensure that the farthest-behind groups benefit from increased energy investments. To do so, the organization should consider developing the post-analysis de-risking tools itself or form closer partnerships with organizations that offer these mechanisms (See also recommendation 7).

Management response:

UNDP fully accepts recommendation 2.

UNDP support to countries via the Sustainable Energy Hub will focus on all countries but especially those that are furthest behind on energy access. UNDP will be working with key partners in UN-Energy as well as new partnerships with multilateral development banks, international financial institutions (African Development Bank, World Bank), global funds (GCF, GEF), the private sector, foundations (Rockefeller Foundation) and others to strengthen local capacities to respond to urgent energy access needs.

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2.1 Map energy access gaps at local/community	December 2022	Bureau for Policy and	
level through the collection of geospatial and		Programme Support, in	
ground-level data in partnership with leading		coordination with regional	
technology providers and other stakeholders (e.g.,		bureaux and country offices	
international agencies, utility companies, financial			
institutions, philanthropy, et. al)			
2.2 Build government capacities to collect and	December 2025	Country offices with support	
analyse data to expand provision of access and		from the Bureau for Policy	
reach the last mile in at least 30 least developed		and Programme Support	
countries, small island developing States and other			
developing countries			
2.3 De-risk use of smaller-scale, off-grid energy	December 2025	Bureau for Policy and	
solutions to scale up access to more remote/rural		Programme Support, in	
communities e.g., through the provision of quality		coordination with country	
standards for sustainable off-grid solutions		offices	
(Distributed Renewable Energy Certificate, first			
loss capital investments, insurance and other policy			
de-risking tools and mechanisms) in at least 30 least			
developed countries, small island developing States			
and other programme countries			
2.4 Work with key partners in UN-Energy and with	December 2025	Bureau for Policy and	
multilateral development banks, international		Programme Support	
financial institutions (African Development Bank,			
World Bank), global funds (GCF, GEF), the private			
sector, foundations (Rockefeller Foundation) and			
others to strengthen local capacities to respond to			
urgent energy access needs			

Recommendation 3. UNDP energy access initiatives should contain formal design components that respond to the user and local experience of energy initiatives, and it should monitor how its energy services lead to sustainable and pro-poor benefits.

The UNDP commitment to increase access to clean and affordable energy for 500 million people is bold and provocative. Its attainment will require practical steps, focused on technology preference, cost and payment models, local value chains, productive usage and ownership and maintenance models. In developing this design component, UNDP should incorporate the perspectives of households, local businesses, facilities and subnational entities, which are key to the success and sustainability of energy initiatives. The assessment should lead to improved energy delivery, which should be monitored over the course of the project and beyond with a tool to capture the user experience and key indication of service quality. Improving the energy service and development benefits should build on impact assessments where UNDP projects have provided a more comprehensive energy service.

Management response:

UNDP fully accepts recommendation 3.

The UNDP commitment to increase access to clean and affordable energy for 500 million people will rely on strengthened and expanded partnerships across public and private sectors, including international development organizations and financial institutions, philanthropy and other key stakeholders. Support to countries via the Sustainable Energy Hub will include a digital platform that will enable near real-time monitoring of energy delivery and track the quality of service, as well as broader linked sustainable development impacts on areas such as access to health and education.

1 7		
3.1 Deploy data and digital planning tools to	December 2023	Bureau for Policy and
identify productive use opportunities at the		Programme Support in
subnational and local levels (including village		coordination with country
scale)		offices
3.2 Identify and deploy mechanisms for stimulating	December 2023	Bureau for Policy and
micro, small and medium-sized enterprises in the		Programme Support in
distributed/off-grid renewable energy space and		coordination with country
across the energy value-chain (e.g., to support cold		offices
storage or the agriculture, food and water sectors)		
3.3 Deploy digital platform to capture provision of	December 2025	Bureau for Policy and
energy delivery and impacts		Programme Support in
		coordination with country
		offices

Recommendation 4. UNDP should establish itself as a global thought leader in sustainable pro-poor energy and transition approaches, adopting a step change in ambition and targeting support to the least developed and middle-income economies that are highly exposed to a global transition to low-carbon energy.

1. UNDP should strengthen its advisory role to Governments with guidance to encourage faster uptake of clean energy and abandonment of unclean sources, based on a national vulnerability rationale as much as a climate change or energy capacity contribution. For that, UNDP energy strategy support to countries will need a broad lens that considers the wider economy, including energy switches within key sectors, job creation/replacement needs, the potential effects on particularly vulnerable groups and the risk to and from vested interests. This role should draw on UNDP strengths in governance and poverty reduction in combination with its energy expertise.

2. Given the top-down nature of global energy policy and investment decisions, the UNDP on-the-ground experience should have an important role to play in driving appropriate responses to the complex energy transitions now at hand. UNDP should build on its in-country knowledge to ensure the perspectives of the poorest and farthest-behind groups are factored into global and national transition agendas. This requires investment in bottom-up knowledge generation.

Management response:

UNDP fully accepts recommendation 4.

UNDP will leverage its expertise and on-the-ground knowledge to support Governments with a holistic view of policy options and frameworks to help guide a clean, inclusive energy transition and quantify the benefits and impacts. This includes understanding the distributional impacts of policy reforms, including those related to fossil fuel subsidies and carbon pricing; options to limit adverse impacts on vulnerable groups; and support to develop a well-communicated and coordinated policy implementation with evidenced-based advocacy and outreach.

4.1 Roll-out of guide on fossil fuel reform and	December 2022	Bureau for Policy and	
carbon pricing		Programme Support	
4.2 Conduct ongoing trainings and advocacy to	December 2025	Bureau for Policy and	
build government capacities to implement reforms		Programme Support	
and overcome public/political barriers		Country offices	
4.3 Support development of country-level	December 2025	Bureau for Policy and	
communications and outreach initiatives and		Programme Support	
platforms		Bureau for External	
		Relations and Advocacy	

Recommendation 5. UNDP should review its approaches to supporting energy access in crisis and fragile settings and develop formal principles and guidelines for addressing immediate energy needs within a more comprehensive plan for recovery and green transition.

- 1. UNDP should design a specific action plan on how it supports energy interventions before, during and after any crisis response, and wherever possible aim to ensure that interventions expand local capacities for adopting and governing cleaner sources of energy. It should build on the experience of countries and bureaux that operate in these contexts and incorporate wider research and deep case studies of national/transnational energy contexts. The objective should be to increase the application of more advanced intervention approaches at the country level while retaining flexibility to respond to contextual differences.
- 2. In developing this action plan, UNDP should consider: (a) supporting governance models for energy initiatives and natural resource management; (b) the potential for supporting local supply chains through energy procurement and capacity-building; and (c) models for expanding the focus on renewables and efficiency measures during power plant rehabilitations.

Management response:

UNDP fully accepts recommendation 5.

UNDP will leverage its expertise and experience in conflict and fragile settings to ensure that its support through the Sustainable Energy Hub is context-specific and interventions are adequately and appropriately sequenced and layered with wider development and humanitarian response efforts.

5.1 Develop an action plan to close the energy	December 2022	Bureau for Policy and		
access gap in fragile and crisis contexts		Programme Support an	nd	
		Crisis Bureau, in		

		coordination with regional bureaux and country offices	
5.2 Support Governments with developing national road maps for energy access and transition aligned to recovery efforts, including embedding energy access and transition into post-disaster needs assessments	December 2025	Country Offices with support from Bureau for Policy and Programme Support	
5.3 Identify and publish examples/case studies of best practice and lessons learned in poor and crisis affected communities (e.g., decentralized solar solutions in Yemen and Sudan; energy for crisis recovery in Lebanon; energy transition in major oil exporting and fragile States)	December 2025	Country offices Regional bureaux Bureau for Policy and Programme Support	
5.4 Develop/update operational guidelines and lessons learned for managing energy challenges in conflict or fragile settings.	December 2025	Bureau for Policy and Programme Support Crisis Bureau	•

Recommendation 6. UNDP should promote a greater integration of gender considerations and more targeted gender guidance for its energy programming, and move away from the assumption that women will automatically benefit if they are simply included in energy initiatives.

- 1. Attention is needed to move beyond the pursuit of gender parity and greater participation, to a next echelon of programming that also addresses the social norms preventing women from fully and equally benefiting from improved energy outcomes. UNDP should work towards converting energy access into real changes to women's economic status, by adequately considering, and to the extent possible addressing, the associated social norms and impediments that limit female livelihoods and financial control and prevent women from taking full advantage of the opportunities offered by improved access to safe and clean energy.
- 2. Although very different intervention strategies are required to support men and women of different ages and abilities, living in different settings, UNDP should increase the level of consultation with users and ensure they are conducted by specialists with an understanding of gender aspects. This will require guidance on the minimum steps needed in each project formulation and implementation, to recognize the perspectives of men and women, and provide prompts to overcome resistance and counter false assumptions that people automatically benefit from their involvement in an energy project or within a facility that has improved electrical supply.

Management response:

UNDP fully accepts recommendation 6.

UNDP has incorporated gender as a KPI for the Sustainable Energy Hub, both in terms of its own capacities, but also support to women—headed households and micro-, small and medium-sized enterprises; the access women and girls have to education, skills development and jobs in the clean energy sector; and the wider development impacts that come with the provision of clean energy, most notably in the provision of clean cooking solutions.

6.1 Develop guidance to support integration of	December 2023	Bureau for Policy and	
gender-specific considerations and targets in energy		Programme Support, with	
project formulation and national energy		inputs from country offices	
plans/strategies			

6.2 Conduct in partnership with internal and external gender experts, country-level consultations and capacity-building exercises to ensure greater understanding of gender aspects in energy programming	December 2025	Bureau for Policy and Programme Support, in coordination with regional bureaux and country offices	
6.3 Include gender-specific data points in the UNDP Data Futures platform to track links between energy access and improved safety and economic opportunities	December 2025	Bureau for Policy and Programme Support, in coordination with regional bureaux and country offices	
6.4 Ensure that gender is considered in integrated way on gender across all projects deployed and supported under the Sustainable Energy Hub	December 2025	Bureau for Policy and Programme Support	

Recommendation 7. UNDP should map where energy investments are needed, by region, to develop a holistic strategy of support to match the most appropriate funding model and resource mobilization strategy for the context.

UNDP should identify opportunities where Governments are open to new financing modalities for energy access and transformation, and seek to expand engagement with international, regional and national financial institutions to help these countries achieve their aims. UNDP, together with the international financial institutions, should classify contexts on a scale of readiness for investment and set out where and how it can help lay the governance foundations for greater investment. In this role, UNDP should emphasize poverty, productive use and equal access to energy to ensure that successful investments do not deepen inequality. Where investment finance is not feasible, UNDP should work to expand funding options through other channels such as the vertical funds, other donors and its Sustainable Development Goal bonds.

Management response:

UNDP fully accepts recommendation 7.

The strategy under the Sustainable Energy Hub will be to work with countries' integrated national financing frameworks and nationally determined contributions as part of a "holistic strategy of support". The solution put forward by UNDP is to promote investment in clean energy by supporting countries to access abundant, low-cost commercial capital through policy de-risking. Financial resources for clean energy are limited, while the investment needs are enormous. These public resources need to catalyse far larger private financial flows if there is to be a widespread adoption of clean energy. Recognizing that transparent, clear and long-term targets, policies and regulations are key for private sector investment, and building on its expertise, partnerships and on-the-ground network, UNDP focuses on policy de-risking to support Governments to design, implement and enforce policies and regulations. UNDP also works with financial and national partners on complementary financial de-risking and financial incentives to achieve the most cost-efficient overall approach to attracting investment.

7.1 Develop, package and upgrade a series of standardized instruments for post-analysis derisking work	December 2025	Bureau for Policy and Programme Support	
7.2 Build a pipeline of investment-ready projects in collaboration with key financial institutional partners	December 2025	Country offices with support from Bureau for Policy and Programme Support	

7.3 Launch an "Energy Access Innovation Challenge" to contribute to the roll-out of new	December 2022	Bureau for Policy and Programme Support Regional	
business models for distributed renewable energy solutions		bureaux	