

Comment on AU Technical Committee’s Proposal for an “African Common Position on Energy Access and Transition” for COP27

Table of Contents

I.	Introduction	3
II.	An AU Technical Committee has proposed an “African Common Position on Energy Access and Transition” for adoption at COP27	3
A.	Technical Paper on African Common Position on Energy Access and Transition	3
B.	Outcome of Specialized Technical Committee on Transport, Infrastructure and Energy	4
III.	Concerns arising from the Technical Paper and Outcome of the Technical Committee	5
A.	The technical paper fails to provide an adequate basis for defining an African Common Position on Energy Access and Transition	6
B.	The paper includes no analysis of the causes of energy poverty in Africa and ways to achieve universal access	6
C.	The paper includes no analysis of the nature or scale of energy transition required in light of climate science	6
D.	The paper includes no analysis of long-term scenarios for climate policies or energy markets and associated structural risks relating to stranded assets	7
E.	The paper includes no analysis of the potential contributions of different energy sources, or the continent’s substantial renewable energy potential	7
F.	The paper is based on the false premise that because energy access goals have not been met “all available measures” are required	7
G.	The paper does not recognise the inevitable trade-offs between different energy sources	8
H.	The paper includes no single recommendation for scaling up renewable energy production	8
I.	The paper, and the Technical Committee, propose an African common position for COP27 without consultation with Africa’s main intergovernmental bodies responsible for climate change	8
IV.	Expanding fossil fuel infrastructure and production will not address the Committee’s stated aims	9
A.	Expanding fossil fuel infrastructure and production is not an effective way to increase “energy access” and will divert resources from more effective approaches	9
B.	Expanding fossil fuel production – including the long-term utilisation of fossil gas – is not an “energy transition”	10
C.	The best way to address Africa’s rising energy demand, universal energy access, and just energy transition is a program focusing on modern, people-centred, decentralised renewable energy	10
D.	African Heads of State have already committed to meet growing energy demand through renewable energy	11
V.	Expanding fossil fuel infrastructure and production is inconsistent with 1.5 °C, the Paris Agreement, the existing African common position on climate change, and the goals of COP27	11
A.	The proposed approach is inconsistent with 1.5 °C and the Paris Agreement	11
B.	The proposed approach is inconsistent with African common position on climate change and goals of COP27	12

C.	The proposed approach entrenches the most climate-damaging fossil fuel as part of a long-term strategy when all emissions are taken into account	12
D.	Tapping Africa’s fossil gas reserves risk creating a methane bomb that is inconsistent with limiting warming below 1.5 °C	13
E.	The continued expansion of fossil fuel extraction in the medium- and long-term risks tipping the world into non-linear climate change that places Africa, other human societies and nature in jeopardy	13
VI.	Expanding fossil fuel infrastructure and production is inconsistent with Africa’s wider development priorities	14
A.	Expanding investments into fossil fuels increases structural risks and potential for stranded assets, communities and countries	14
B.	Expanding fossil fuel infrastructure is unsound in economic terms and constitutes a misuse of scarce resources for Africa’s development	14
C.	A focus on fossil fuels, including gas over the long-term, supplants investments into renewable energy, and will misdirect finance and investment towards fossil fuel rather than renewable energy infrastructure	15
D.	Expanding centralized infrastructure will reduce rather than increase resilience of Africa’s energy system, including to the adverse impacts of climate change	15
E.	Expanding centralised infrastructure is not consistent with fostering local ownership and democratic control, and risks making Africa’s energy system more subject to foreign ownership and influence	16
F.	Expanding fossil fuel infrastructure and production fails to address Africa’s energy needs for rural development and sustainable agriculture and increases risks to agricultural communities	16
G.	Expanding fossil fuel production will increase vulnerability of people in Africa and around the world, and potential for human rights violations	17
H.	Expanding fossil fuel production increases risks to public health in Africa	17
I.	Expanding fossil fuel production will increase threats to Africa’s ecosystems and biodiversity	18
J.	Expanding fossil fuel production risks exacerbating the “resource curse” associated with fossil fuels, and is a strategic error for Africa and its partners	18
VII.	Reliance on nuclear energy and hydrogen gas raise additional concerns	19
A.	Nuclear energy threatens major adverse impacts in Africa and world-wide, and is slow, expensive and unsuitable to address Africa’s requirements for universal energy access	19
B.	Hydrogen produced using <i>nuclear energy</i> is not “green” and adds to the risks of nuclear energy, the risks and limitations associated with centralized, large-scale hydrogen production	19
C.	Hydrogen produced using <i>renewable energy</i> could squander Africa’s renewable energy potential, and skew it away from meeting Africa’s needs towards foreign and export interests, particularly in Europe	20
VIII.	The proposed approach places at risk Agenda 2063 and UN Sustainable Development Goals	21
IX.	The proposed approach does not seem to be based on stated objectives relating to climate change, energy transition or energy access; but appears to be driven by interest relating to fossil fuel expansion, particularly in the fossil gas sector	21
X.	The proposed approach is irreconcilable with success at COP27, and so further dialogue is required with officials at the technical, Ministerial and Head of State level relating to climate change	22

I. Introduction¹

An African Union (AU) technical committee² has proposed an *African Common Position on Energy Access and Transition* for adoption at COP27. It calls for coal and oil to play “crucial roles” in expanding energy access in the short- and medium-term, and for fossil gas in the short-, medium- and long-term, in addition to nuclear, hydrogen and renewable energy.

The proposal is based on a technical paper that claims that COP26 left Africa in a “disadvantaged position” by calling for measures to phase out coal and oil and to strengthen emission targets to align with the temperature goal of the Paris Agreement.³ It suggests that to meet energy access goals (SDG7) all energy resources – both renewable and non-renewable – are required.

The proposal raises a set of questions that merit serious consideration by African policy-makers, experts and citizens. If adopted by all African countries the position risks locking fossil fuels into Africa’s long-term energy mix, with consequences for Africa’s future development, the credibility of COP27, and the viability of global climate goals as set out in the Paris Agreement.

This note describes the technical paper, the outcome of the technical committee, and a range of concerns that should be addressed by African policy-makers responsible for engaging in COP27 and the UN climate change process at the technical, Ministerial and Head of State Level.

II. An AU Technical Committee has proposed an “African Common Position on Energy Access and Transition” for adoption at COP27

A. Technical Paper on African Common Position on Energy Access and Transition

The proposal is based on a technical paper which a) describes Africa’s energy situation; b) proposes an African Common Position on Energy Access and Transition; c) addresses renewable energy and transportation; d) identifies four “pillars” for implementation; and e) defines expected decisions by Ministers.⁴

The paper notes that over 600 million Africans lack electricity access, 80% of sub-Saharan Africans lack access to clean cooking⁵, and current approaches will fail the SDG7 2030 energy targets⁶. It therefore suggests that it has become imperative for Africa “to use all available measures and resources”⁷, and asserts that COP26 left Africa in a “disadvantaged position” by calling for measures to phase out coal and oil and to strengthen emission targets to align with the temperature goal of the Paris Agreement.⁸

¹ This comment has been prepared by Africa Coal Network, Climate Action Network Africa, Climate Action Network Arab World, Environmental Rights Action, Friends of the Earth Africa, groundWork, JA! Justiça Ambiental, Power Shift Africa, South Durban Community Environmental Alliance, #StopEACOP Coalition, 350Africa.org as a contribution to deliberations by African policymakers in preparation for COP27 in Sharm El-Sheikh, Egypt, 6-18 November 2022.

² Specialized Technical Committee on Transport, Transcontinental and Interregional Infrastructure, and Energy (STC-TTIE), Ministerial Meeting on 16 June 2022, preceded by an expert meeting on 14-15 June 2022.

³ Specialized Technical Committee on Transport, Transcontinental and Interregional Infrastructure, and Energy (STC-TTIE), Ministerial Meeting on 16 June 2022, preceded by an expert meeting on 14-15 June 2022, paragraph 4

⁴ Technical Paper, African Common Position on Energy Access and Transition, June 2022

⁵ Technical Paper, paragraph 1

⁶ Technical Paper, paragraph 2

⁷ Technical Paper, paragraph 3

⁸ Technical Paper, paragraph 4

In terms of an African Common Position, it says that low levels of energy access signify that the “way forward is not about choosing between energy resources and systems” and that in addition to renewables in the “short- to medium-term fossil fuels, especially natural gas will have to play a crucial role”.⁹ In the long-term, the report claims that Africa will transition to energy systems based on renewable and clean sources of energy – which it defines to include nuclear, hydrogen gas, and fossil gas.¹⁰

In relation to renewable energy and transportation, the paper calls for electrification of vehicles on the basis that it is “energy efficient” and “enables use of renewable energy sources for transport”.¹¹

It identifies four pillars of implementation relating to: a) finance; b) regional integration (“to create large markets for energy services as well as ensure economies-of-scale and profitability for investments”); c) policy development and harmonization; and d) technology transfer and technical assistance.¹²

The paper requests a number of decisions relating to: a) national energy transition and resource mobilisation plans; b) a continental framework for technology transfer; c) acceleration of key initiatives; d) a continental program on hydrogen gas; e) mobilisation of domestic and international financing; f) acceleration of frameworks to utilize nuclear energy; g) promotion of electric vehicles.¹³

B. Outcome of Specialized Technical Committee on Transport, Infrastructure and Energy

Following discussion of the technical paper at an expert meeting on 14-15 June 2022, Ministers responsible for Transport and Energy met on 16 June 2022. The outcome included a) a Report of the meeting; b) a Declaration by Ministers; c) a Draft Decision for the AU Executive Council.¹⁴

The Report considers Russia’s invasion of Ukraine and the resulting energy crisis, and recommends an “increase in Africa oil production ... refining of African oil in African refineries, and pan-African storage and distribution infrastructure”; acceleration of “regional gas and electricity projects”; and “opportunities for the export of natural gas to other markets”. It refers to the Technical Paper (above) and summarises, as a proposed common position, that Africa: a) continue to deploy both renewable and non-renewable energy systems; b) that oil and coal will continue to play a crucial role in expanding access in the short- to medium-term; c) with renewables, nuclear, hydrogen and fossil gas providing energy over the short-, medium- and longer-term. It recommends endorsement of this as an African common position and calls on the AUC to consolidate African proposals and submit for endorsement to African officials at the technical (African Group of Negotiators or AGN), Ministerial (African Ministerial Conference on

⁹ Technical Paper, paragraph 5

¹⁰ Technical Paper, paragraph 6, see also Figure 1 defining fossil gas as an “Energy Technology” contributing over the “Long-term” to “Energy Access and Transition”

¹¹ Technical Paper, part 3

¹² Technical Paper, part 4

¹³ Technical Paper, part 5

¹⁴ Specialized Technical Committee on Transport, Transcontinental and Interregional Infrastructure, and Energy (STC-TTIE), Ministerial Meeting on 16 June 2022, preceded by an expert meeting on 14-15 June 2022

the Environment or AMCEN) and Head of State (Committee of African Heads of State and Government on Climate Change or CAHOSCC) levels.

In the Declaration, Ministers of Transportation and Energy endorse the proposed African common position on energy access and transition and request the African Union Commission (AUC) to “work together with the Member States to consolidate all the different African proposals on Energy Access and Just Energy Transition”. They also request the AUC to coordinate the submission of the consolidated African Position Paper to the AGN for onward transmission to AMCEN and CAHOSCC for endorsement. In parallel they called on African states to “define decarbonization targets through the Nationally Determined Contributions, while elsewhere in the document calling for a plan that “promotes intra-African trade and increased African oil production”; “refining African crude oil in African refineries and pan-African storage and distribution infrastructure”, and “acceleration of development of regional gas and electricity projects and infrastructure to support Africa's energy transition, industrialization, clean cooking, agriculture, petrochemicals and open opportunities to the export of natural gas to other markets” among other decisions. Ministers requested the “African Union Commission to submit this Declaration to the African Union Policy Organs for consideration and adoption”.

The Draft Decision, proposed for adoption by the AU Executive Council (the group of Ministers designated to prepare decisions for the AU Assembly made up of African Heads of State), commends the Ministers of Transportation and Energy, endorses their proposed African common position, and repeats with endorsement the other recommendations included in the Ministerial Declaration (including those summarised above). This Decision would provide the final step before adoption by the African Union of the common position proposed Energy and Transportation Ministers. Notably, this Decision avoids referencing fossil fuels, and merely endorses the common position, which is clearly referencing the underlying documents stating that “oil and coal will play crucial roles in expanding modern energy access” in the short- and medium-term, and fossil gas among other sources in the short-, medium- and long-term.

Despite purporting to be about “energy access” and “energy transition” the Technical Paper, the Meeting Report, the Ministerial Declaration, and the proposed Decision for the AU Executive Council focus extensively on the maintenance and expansion of fossil fuel production, particularly fossil gas, and on nuclear energy and hydrogen gas, and makes no specific recommendation on scaling up renewable energy production as part of an energy transition from fossil fuels, or about targeting decentralised energy to 600 million people in Africa that currently lack access.¹⁵ If adopted, Africa will present to COP27 a common position that explicitly provides that “oil and coal will continue to play crucial role” in the short- and medium-term, and that fossil gas will feature in the continent’s energy mix for the short-, medium- and long-term – a common position that is arguably inconsistent with African and international goals relating to climate change and sustainable development or with success at COP27.

III. Concerns arising from the Technical Paper and Outcome of the Technical Committee

A well informed, science-based and evidence-based African common position on energy access and transition would be grounded on a range of factors including analysis of Africa’s projected energy needs and demands; the causes of low energy access and potential solutions targeted to

¹⁵ The only references to renewable energy are: a) in references to the need for “both renewable and non-renewable” energy (twice); b) in the title of the Africa Renewable Energy Initiative (AREI) (three times); and c) in relation to a section on renewable energy and transportation, which proposes the electrification of vehicles, but includes no recommendations on way to scale up the production of renewable energy for use in electric vehicles.

addressing it; and the energy technologies and systems best placed to deliver rapid, cost-effective, low-carbon transition that meets Africa's energy needs and delivers on African and international sustainable development priorities including Agenda 2063, the UN Sustainable Development Goals and the Paris Agreement. The technical paper and associated outcome of the committee do not seem to be supported by this analysis, raising questions about the resulting proposed common position that has been proposed for adoption by African Heads of State and by the African bodies responsible for climate change and COP27.

A. The technical paper fails to provide an adequate basis for defining an African Common Position on Energy Access and Transition

The technical paper fails to include or to cite analysis or evidence from African or international sources to support its key findings including those suggesting that “all available measures and resources” are required, or that it “is not about choosing between energy resources of systems”, or calling for continued reliance on oil and coal in the medium-term, the long-term reliance on fossil gas, or the safety and viability of nuclear energy as part of the continent's long-term energy mix and its suitability for meeting concerns about energy access. For a variety of reasons, including those noted below, the technical paper fails to provide an adequate basis for defining an African Common Position on Energy Access and Transition.

B. The paper includes no analysis of the causes of energy poverty in Africa and ways to achieve universal access

Providing universal energy access is necessary to end poverty, empower women and generate opportunity and achieve Africa's goals as set out in Agenda 2063 and other documents. The technical paper correctly notes that “Africa still faces huge challenges including low generation capacity and efficiency, high costs, unstable and unreliable energy supplies, and low access rates”. It notes that “more than 600 million people are left without access to electricity while more than 80% of the Sub-Saharan African population lack access to clean cooking technologies.” It does not, however, examine *why* the current system has these characteristics, including why it has delivered energy in the form of electricity to wealthy, urban middle class and commercial sectors, or in the form of coal, oil and gas substantially for export to foreign markets, while failing to meet Africa's growing demand for energy, or to provide modern energy access to the vast majority of Africans. Nor does it offer any specific proposal for addressing energy poverty or ensuring universal energy access among its numerous recommendations.

C. The paper includes no analysis of the nature or scale of energy transition required in light of climate science

A position on energy access *and transition* also requires analysis of the need for, and constraints placed on, an energy transition, including those determined by climate change. Yet the paper includes no analysis of the findings of the Intergovernmental Panel on Climate Change (IPCC), the International Energy Agency (IEA), UN Environment or other bodies which would be required to inform the development of a common position addressing issues of energy access and transition, climate change and development for release by African governments at COP27. Instead it calls for continued reliance on oil and coal in the short- and medium-term, and fossil gas for the long-term, without any analysis of what this implies for efforts to limit warming below 1.5 °C or 2 °C, which are necessary to avoid catastrophic consequences for Africa and the world. The paper simply asserts the need for “energy development space” with no analysis of whether this is consistent with atmospheric physics or chemistry, or the requirements of a stable climate to enable Africa's development.

- D. The paper includes no analysis of long-term scenarios for climate policies or energy markets and associated structural risks relating to stranded assets

Beyond summary analysis of the Ukraine-Russia crisis' immediate effects, the paper includes no information or analysis on long-term scenarios relating to climate and energy policy, and their likely effect on the viability of different energy sources for both domestic and international consumption. The paper does not raise or assess the structural risks and potential for stranded assets associated with different energy system choices, particularly coal, oil and gas.

Understanding these factors would be important for Ministers when considering a common position, given current linkages between African and international markets, and the importance of building long-term energy sovereignty and security for the continent to meet its development objectives. Without this analysis, there is a risk that utilizing “all measures and resources” will result in poor investment choices, lock-in to obsolete energy systems, and substantial economic disruptions to a continent that already faces substantial debt, financial and economic challenges.

- E. The paper includes no analysis of the potential contributions of different energy sources, or the continent's substantial renewable energy potential

The paper refers to a number of potential energy sources including coal, oil, gas, nuclear/hydrogen and renewables but undertakes no analysis of the viability, potential or cost-effectiveness of different energy sources when defining which should form part of the long-term energy mix, not to mention the climate and ecological burden of these energy options. While Africa has 39% of the world's total renewable energy potential – by far the largest share of any continent¹⁶ – the paper seems focused substantially on justifying continued reliance on fossil fuels in the short-, medium- and long-term, with particular preference given to natural gas. It is notable that a paper on energy *transition* includes no specific recommendation for scaling up renewable energy deployment or production, and does not mention specific forms of renewable energy such as wind, solar or geothermal. Nor does the paper identify the opportunity for Africa to leapfrog to decentralised renewable energy systems, and the advantages of doing so in terms of affordability and availability or the delivery of low-carbon and climate resilient energy systems. The statement, included in the subsequent Meeting Report, that the technical paper analyses “the potential of various energy technologies, both renewable and non-renewable energy systems, to contribute to energy access and transition on the continent” is false and is likely to mislead Ministers and others reading the report of the Technical Committee.

- F. The paper is based on the false premise that because energy access goals have not been met “all available measures” are required

The paper says that based on current approaches Africa will not achieve the UN sustainable development goals on energy (SDG7) by 2030 and so it has become imperative for Africa “to use all available measures and resources” to accelerate access including both renewable and non-renewable sources. Consequently, Africa requires “energy development space” to enable use of fossil fuels (despite the outcome of COP26 calling for measures to begin to phase them out). Paradoxically the paper argues that because current systems have failed to achieve universal access, and are projected to continue to fail to do so, that we should make use of “all available measures” including, apparently, the current systems and approaches that have failed to achieve universal access. Without analysis of *why* current, largely centralised, largely fossil

¹⁶ <http://priceofoil.org/content/uploads/2021/10/Skys-Limit-Africa-Report-2021.pdf>

fuel-dependent, largely export-oriented energy systems have failed to deliver energy access to hundreds of millions of ordinary Africans, the paper and the Report of the Technical Committee each define an essential role for fossil fuels in the short-, medium- and long-term. An evidence-based African common position, by contrast, requires analysis of the most practical, efficient and cost-effective means for providing energy access to hundreds of millions of Africans lacking it, while transitioning as quickly as feasible to low-carbon sources.

G. The paper does not recognise the inevitable trade-offs between different energy sources

Economics is the study of choice; the role of government is to choose and implement policies that benefit their people and achieve the common good. The paper's statement that "it is not about choosing between energy sources" is clearly false, in both economic and policy terms. Faced with scarce resources and limited capabilities every government will need to make choices about which energy systems to prioritize. The investment of resources and construction of infrastructure lock-in certain energy sources, and crowd-out others. The prioritisation of investments and incentives towards the energy sources with the greatest potential to provide reliable, affordable, universal access to low-carbon, sustainable energy is therefore the cardinal choice facing African governments. The attempt to avoid a discussion about the necessary choices between energy systems seems designed to avoid discussing the relative merits and problems of different sources in addressing energy access and transition challenges. It risks locking the continent into obsolete, expensive and unreliable energy systems that have not and will not achieve its development objectives.

H. The paper includes no single recommendation for scaling up renewable energy production

The paper includes no recommendations for actively scaling up renewable energy sources such as solar, wind, small hydro or geothermal. Rather its recommendations seems heavily focused on justifying continued reliance on coal, oil and gas, as well as on the production of nuclear energy and hydrogen gas (which could equally be combined to produce nuclear-powered hydrogen gas, for export via gas infrastructure to Europe).¹⁷ The paper includes a section entitled "renewable energy and transportation" which calls for the electrification of vehicles but provides no recommendations for *producing* renewable energy to supply these vehicles. Electric vehicles *consume* energy and could equally be supplied by energy from gas, nuclear or renewable sources – the proposal is as consistent with providing a market for electricity produced from gas or nuclear power, as from renewables. The failure to provide a single concrete proposal to scale up renewable energy production is notable in a paper framed offering a position on energy transition.

I. The paper, and the Technical Committee, propose an African common position for COP27 without consultation with Africa's main intergovernmental bodies responsible for climate change

The paper proposes an African common position for communication by African governments to the "African COP27" to be held in Egypt in November 2022. Africa has a number of bodies mandated to define positions for the UN climate change negotiations at the technical level (African group of climate change negotiators), Ministerial level (African Ministerial Conference

¹⁷ As noted, the only references to renewable energy are: a) in references to the need for "both renewable and non-renewable" energy (twice); b) in the title of the Africa Renewable Energy Initiative (AREI) (three times); and c) in relation to a section on renewable energy and transportation, which proposes the electrification of vehicles, but includes no recommendations on way to scale up the production of renewable energy for use in electric vehicles

on Environment) and Head of State level (Committee of African Heads of State and Government on Climate Change). Despite addressing the central issues under discussion at the UN climate change negotiations – the need to phase down emissions and transition to clean energy, transportation and other low-emission solutions – the technical paper and the Technical Committee have proposed a common position without engagement with these bodies. Rather, the AUC is requested to submit it to those bodies while it is also being sent to the African Union Executive Council, which would result in endorsement by the organs of the African Union, and potentially create a forgone conclusion for African bodies responsible for climate change, including the Head of State body, CAHOSCC.

In the absence of a proper evidence base, without offering an analysis of the causes of low energy access or the requirements of an energy transition, lacking analysis of the relative potentials and contributions of different energy sources, relying on false premises to justify reliance on all available measures, resources and energy systems, including those that have created Africa’s current energy challenges, and failing to reflect sufficient consultation with relevant experts formally responsible for climate change and the UN climate negotiations, the paper and outcome of the Technical Committee raise a number of wider concerns that should be considered by African decision-makers before considering adoption of a common position.

IV. Expanding fossil fuel infrastructure and production will not address the Committee’s stated aims

The focus of the technical paper and the Technical Committee on expanding energy access via oil and coal in the short- and medium-term, and via fossil gas over short-, medium- and long-term will not address the Committee’s stated aims, or the aims of any credible program relating to energy access and energy transition, for reasons including those below:

A. Expanding fossil fuel infrastructure and production is not an effective way to increase “energy access” and will divert resources from more effective approaches

Since our fights against colonialism and for independence, African countries have spent decades and billions of dollars investing in fossil-fuel based energy systems that have failed to provide modern energy access to 600 million people, about half of the continent’s population, and remain characterised by “low generation capacity and efficiency, high costs, unstable and unreliable energy supplies”.¹⁸ Expanding the infrastructure to extract, refine, transport, and burn fossil fuels – and building out centralised electricity grids to distribute fossil fuels converted into electricity – is a costly, inefficient and ultimately unviable means for providing universal energy access to Africa’s people, particularly to poor and widely distributed rural communities.¹⁹ This is the energy systems equivalent of building more telephone landlines in an era of mobile phones. As noted by the International Renewable Energy Agency (IRENA) “A renewables-based energy transition promises to deliver vast socio-economic benefits to countries across Africa, improving energy access, creating jobs and boosting energy security. To realise these benefits, African countries have an opportunity to leapfrog fossil fuel technologies to a more sustainable, climate-friendly power strategy aligned with the Paris Agreement and low-carbon growth.”²⁰ Expanding fossil fuel infrastructure by contrast would mis-allocate scarce resources, lock Africa into

¹⁸ Technical paper, at paragraph 1

¹⁹ It is notable that Nigeria, Africa’s second largest oil producer, still has around 85 million people – around half its total population – living without grid-connected electricity. <https://foreignpolicy.com/2022/07/20/europe-africa-energy-crisis-oil-gas-fossil-fuels-russia-ukraine-war/>

²⁰ <https://www.irena.org/publications/2021/March/The-Renewable-Energy-Transition-in-Africa>

obsolete energy technologies and systems, and delay the provision of universal energy access to hundreds of millions of people, undermining efforts to unlock Africa’s tremendous development potential. Instead of the dirty, polluting energy sources of the past, Africa and its people deserve the clean energy sources of the future.

B. Expanding fossil fuel production – including the long-term utilisation of fossil gas – is not an “energy transition”

As well as being unsuitable to deliver “energy access”, expanding fossil fuel production, including the long-term utilisation of fossil gas, is not an “energy transition” – at least in any sense that is meaningful in the context of contemporary discussions around climate change and COP27. Indeed, the technical paper provides “In the short- to medium-term, fossil fuels, especially natural gas will have to play a crucial role in expanding modern energy access”.²¹ The Report provides “In the short- to medium-term, oil and coal will play crucial roles in expanding modern energy access in the transport, industrial and electricity sectors”.²² Both documents centre fossil gas as part of Africa’s long-term energy mix, attempting to characterize it as “clean” despite evidence it is the most climate-polluting fossil fuel source (see below). Rather than promote a transition *from* fossil fuels to cleaner, cheaper, lower-emissions, renewable energy sources, it seems designed to carve out a “critical role” for all fossil fuels in the short- and medium-term, and for fossil gas over the long-term. While the paper calls for a “smooth transition towards developing an energy system based on renewable and clean sources of energy” – its content seems more focused on consolidating a long-term role for fossil gas, than transitioning from it.

C. The best way to address Africa’s rising energy demand, universal energy access, and just energy transition is a program focusing on modern, people-centred, decentralised renewable energy

Globally, renewable energy offers the technical potential to produce more than 100 times the world’s energy needs by 2050.²³ Africa is a renewable energy superpower, with greater capacity than any other continent. Renewable energy is the most affordable option and best investment for Africa. IRENA confirms “renewable energy technologies now represent the most economical solution for new capacity in a growing number of countries and regions and are typically the most economical solution for new grid connected capacity.”²⁴ Moreover, “62 per cent of total renewable power generation added last year had lower costs than the cheapest new fossil fuel option”, it says²⁵, with cost reductions continuing into the future. Research demonstrates it will be more cost effective to close down 60% of the world’s coal plants and replace them with new wind or solar compared to continued burning of fossil fuels (this figure projected to increase 73% by 2025).²⁶ Investments into renewables create cleaner, better paying and more widely

²¹ Technical paper paragraph 5

²² Report of Specialized Technical Committee on Transport, Transcontinental and Interregional Infrastructure, and Energy (STC-TTIE), Ministerial Meeting on 16 June 2022 paragraph 16

²³ <https://carbontracker.org/reports/the-skys-the-limit-solar-wind/>

²⁴ <https://www.irena.org/costs/Power-Generation-Costs>

²⁵ IRENA at, <https://www.irena.org/newsroom/pressreleases/2021/Jun/Majority-of-New-Renewables-Undercut-Cheapest-Fossil-Fuel-on-Cost>, stating “The share of renewable energy that achieved lower costs than the most competitive fossil fuel option doubled in 2020, a new report by the International Renewable Energy Agency (IRENA) shows. 162 gigawatts (GW) or 62 per cent of total renewable power generation added last year had lower costs than the cheapest new fossil fuel option.

²⁶ Bodnar, P. et al. (2020) *How to Retire Early: Making Accelerated Coal Phaseout Feasible and Just*. Rocky Mountain Institute. <https://rmi.org/insight/how-to-retire-early>

distributed job opportunities²⁷, and are better suited both for large-scale grid-connected capacity, and to meeting needs of remote communities lacking energy access. Cheap decentralised energy from renewables, in turn, will spur new industries and opportunities in Africa. As the costs of renewable energy continue to fall, the argument for further investments into outmoded, centralized, climate-polluting, fossil fuel-based infrastructure continue to weaken, and reflect the interests of vested and special interests, rather than of African people, communities, economies and countries. Africa must move away from harmful fossil fuels towards a transformed energy system that is clean, renewable, democratic and actually serves its peoples.²⁸

D. African Heads of State have already committed to meet growing energy demand through renewable energy

African Heads of State adopted a continental renewable energy target in 2015 in the context of the Africa Renewable Energy Initiative (AREI). AREI was designed as a transformative Africa-owned and Africa-led effort to accelerate, scale-up and harness the continent's huge potential in renewable energy sources. Endorsed by all African Heads of State and Government via the African Union, the initiative was launched at COP21 in Paris 2015. AREI was intended to enable Africa to quickly move to modern distributed energy systems that are renewable, smart and able to both feed industry and reaching people currently without adequate access to modern energy services. The Initiative seeks to achieve universal energy access and the addition of at least 300 GW by 2030 – enough to meet Africa's growing energy needs over the next decades.²⁹ AREI was adopted in the context of the Paris Agreement, as Africa's contribution to a safe climate future, with commitments of support exceeding \$10 billion by developed countries. African governments, particularly the Chair of CAHOSCC, should consider re-establishing effective control over AREI, to address current challenges and to enable it to reach its full potential as part of the African COP27, and developed countries should honour their finance pledges.

V. Expanding fossil fuel infrastructure and production is inconsistent with 1.5 °C, the Paris Agreement, the existing African common position on climate change, and the goals of COP27

For reasons set out below the emphasis of the Committee's proposed common position on fossil fuels is inconsistent with 1.5 °C, the Paris Agreement and the existing African common position on climate change, and cannot be reconciled with the goals of an African COP27.

A. The proposed approach is inconsistent with 1.5 °C and the Paris Agreement

The Paris Agreement commits countries to “pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change”.³⁰ To limit warming below 1.5 °C the Intergovernmental Panel on Climate Change (IPCC) has established that the world must reduce emissions by around half by 2030.³¹ For a global energy pathways consistent with 1.5 °C, the International Energy Agency (IEA) confirms that “there is no need for investment in new fossil fuel supply” and that

²⁷ UN Secretary General, Antonio Guterres (“And investment in renewables creates jobs – three times more jobs than fossil fuels”, <https://media.un.org/en/asset/k1q/k1qn00cy8a>)

²⁸ <http://foeafrica.org/wp-content/uploads/2021/08/FoE-Africa-Just-Recovery-Energy-Plan-for-Africa-ENG.pdf> .

²⁹ [http://www.arei.org/wp-content/uploads/2018/02/ASSEMBLY%20AU%2016%20\(XXX\)%20 E.pdf](http://www.arei.org/wp-content/uploads/2018/02/ASSEMBLY%20AU%2016%20(XXX)%20 E.pdf)

³⁰ Paris Agreement, Article 2

³¹ https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_High_Res.pdf

“beyond projects already committed as of 2021, there are no new oil and gas fields approved for development in our pathway, and no new coal mines or mine extensions are required.”³² The UN Production Gap Report states “fossil fuel production must start declining immediately and steeply to be consistent with limiting long-term warming to 1.5 °C.”³³ To follow a 1.5 °C consistent pathway fossil fuel production will need to decrease “by roughly 6% per year between 2020 and 2030”, or roughly 50% during this decade. The Committee’s proposed approach, which provides oil and coal will play “crucial roles” in expanding energy access in the short- and medium-term, and which includes fossil gas as part of Africa’s energy mix over the long-term, is inconsistent with climate science, with the findings of the IPCC, the IEA, UN Environment and other leading international organisations, with international commitments under the Paris Agreement, and with a stable climate.

B. The proposed approach is inconsistent with African common position on climate change and goals of COP27

The proposed approach is also inconsistent with the African common position on climate change and the goals of COP27. Africa has consistently championed a global goal of limiting warming to below 1.5 °C above pre-industrial levels. This was included in the African Common Position on Climate Change adopted by Ministers and Heads of State in the run-up to the “African COP” in Durban in 2011. Support for the 1.5 °C goal by 54 African states led to it being included in the Paris Agreement – a major accomplishment for Africa. Limiting warming to below 1.5 °C is essential for the survival, development and prosperity of Africa because, as a large continental land-mass, Africa will warm roughly 1.5 times the global average level of warming (meaning global *average* warming of 1.5 °C already means warming of *more than* 1.5 °C on the continent of Africa, with major adverse impacts for Africa’s people, communities, economies and countries). The stated goals of the “African COP27” are to “unite to limit global warming to well below 2C and work hard to keep the 1.5C target alive” requiring “bold and immediate actions and raising ambition from all parties in particular those who are in a position to do so and those who can and do lead by example”.³⁴ The Committee’s proposed approach is inconsistent with the goals of COP27 and the African Common Position on Climate Change, and places at risk global climate goals and the UN climate change process. Rather than leading by example, it risks creating a precedent for other countries to lock-in fossil fuels as part of their short-, medium- and long-term energy plans, with potentially catastrophic consequences.

C. The proposed approach entrenches the most climate-damaging fossil fuel as part of a long-term strategy when all emissions are taken into account

A particular emphasis of the Committee’s proposed approach seems to be locking-in fossil gas as part of Africa’s long-term energy supply. This is presumably based on the common but misplaced assumption that fossil gas is “greener” or “lower-emissions” than oil and coal. When all greenhouse gasses including methane (and not only carbon dioxide) are taken into account, however, fossil gas is in fact the most climate-polluting fossil fuel. Fossil gas is composed mainly of methane. Methane is approximately 80 times more climate-damaging than carbon dioxide over the 20 year time period during which the world must curb warming to achieve global climate goals. Multiple studies indicate that, based on the “best available data, and a 20-year time period for comparing the warming potential of methane to carbon dioxide, the conclusion stands that both shale gas and conventional natural gas have a larger GHGs than do

³² <https://www.iea.org/reports/net-zero-by-2050>

³³ <https://productiongap.org>

³⁴ <https://cop27.eg>

coal or oil, for any possible use of natural gas...”³⁵ The Committee’s strategy consequently proposes an energy transition towards (and not away from) the fossil fuel that is most immediately dangerous to the climate system, and hence dangerous to the stable climate required for Africa’s future.

- D. Tapping Africa’s fossil gas reserves risk creating a methane bomb that is inconsistent with limiting warming below 1.5 °C

The Committee’s focus on fossil gas may undermine the climate strategies most effective at limiting warming. Because it is short-lived in the atmosphere, cutting methane is among the most important means to keep warming below 1.5 °C in the near term,³⁶ in order to safeguard Africa’s development and prosperity. The proposal to exploit Africa’s fossil gas reserves over the long term as part of a “clean” energy transition risks substantial methane leakage from production facilities, transportation pipelines and other infrastructure. The International Energy Agency confirms that the world need to cut methane emissions at least 75% by 2030 to remain on track for 1.5 °C³⁷. By contrast, the Committee is proposing to entrench fossil gas as part of Africa’s long-term energy mix, opening potential for a vast network of gas infrastructure that produces, transports and emits methane for the “long-term”. Fossil gas reserves in Africa totalled over 620 trillion cubic feet in 2021.³⁸ When methane emissions must decline by 75% by 2030, continuing to develop a body of fossilized methane of this scale risks creating a methane bomb that pushes greenhouse gas emissions well beyond the limits set out in the Paris Agreement.

- E. The continued expansion of fossil fuel extraction in the medium- and long-term risks tipping the world into non-linear climate change that places Africa, other human societies and nature in jeopardy

The Intergovernmental Panel on Climate Change’s (IPCC) October 2018 *Special Report on Global Warming of 1.5 °C* confirmed that the world had roughly a decade to ensure we are on path to avoid irreversible damage to the climate system, human societies and nature.³⁹ UN Environment’s *Emissions Gap Report 2019* stated unless global climate ambitions and actions are increased immediately “exceeding the 1.5 °C goal can no longer be avoided and the well below 2°C goal will slip increasingly out of reach.”⁴⁰ The most recent studies indicate that risks may be greater than recognised in these major scientific reports, with self-reinforcing feedbacks, tipping points, non-CO2 emissions, and potential for runaway climate change all remaining understated in the IPCC’s 1.5 °C Special Report. Against this background the Committee’s proposal for fossil fuels to play an ongoing role in Africa’s energy mix – particularly fossil gas – fails to consider the risks of tipping the climate into non-linear disruption and potentially catastrophic consequences for Africa, other societies, and the Earth’s natural systems. The Committee’s proposal that a continent of more than 50 countries and a billion people extend fossil fuel production as part of their long-term energy mix may put a stable climate beyond reach.

³⁵ <https://onlinelibrary.wiley.com/doi/10.1002/ese3.35>

³⁶ <https://www.bbc.co.uk/news/science-environment-56933443>

³⁷ <https://www.iea.org/reports/curtailing-methane-emissions-from-fossil-fuel-operations>

³⁸ <https://www.statista.com/statistics/1197585/natural-gas-reserves-in-africa-by-main-countries/>

³⁹ https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_High_Res.pdf

⁴⁰ <https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y>

VI. Expanding fossil fuel infrastructure and production is inconsistent with Africa's wider development priorities

As well as threatening Africa and the world with catastrophic climate impacts from continued reliance on fossil fuels, the Committee's position, proposed for adoption by all African states, is inconsistent with Africa's wider development priorities as set out in Agenda 2063, the Sustainable Development Goals and other major shared objectives.

A. Expanding investments into fossil fuels increases structural risks and potential for stranded assets, communities and countries

The latest report of the IPCC highlights the risk of stranded fossil fuel assets, which due to their lengthy lifetimes will lock humanity into "carbon-intensive lifestyles and practices for many decades."⁴¹ According to Carbon Tracker, "fossil fuel-reliant countries could see a drop of 51% in government oil and gas revenues in a shift to a low-carbon world over the next two decades".⁴² It states that "compared with industry expectations, government revenues in these countries could be \$9 trillion lower over the next two decades under a low-carbon scenario."⁴³ A recent report by the Natural Resources Governance Institute notes that if "national oil companies follow their current course, they will invest more than \$400 billion in costly oil and gas projects that will only break even if humanity exceeds its emissions targets and allows the global temperature to rise more than 2°C".⁴⁴ Ratings agencies, such as Fitch, have recently announced that climate change "stranded assets" could cause substantial falls in exporter's sovereign credit ratings, increasing their challenge in servicing existing debts. In Africa, stranded assets have been identified by the UN University as presenting "a very real threat" to Africa's development.⁴⁵ As noted recently by UN Secretary General Antonio Guterres, "fossil fuels are a dead end – for our planet, for humanity, and for economies. A prompt, well-managed transition to renewables is the only pathway to energy security, universal access, and the green jobs our world needs."⁴⁶

B. Expanding fossil fuel infrastructure is unsound in economic terms and constitutes a misuse of scarce resources for Africa's development

The Committees' focus on fossil fuels in the short-, medium- and long-term risks mis-using scarce African and international resources, and may undermine rather than advance Africa's energy and development goals. Building new renewable energy has become cheaper than running existing fossil fuel plants. According to Bloomberg, it is "now cheaper to build and operate *new* large-scale wind or solar plants in nearly half the world than it would be to run an *existing* coal or gas-fired power plant".⁴⁷ Renewable energy becomes even more cost-effective when the additional costs of extracting, transporting and refining fossil fuels, and of building new coal or gas-fired power plants, and of building the large-scale transmission systems

⁴¹ IPCC, 'Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change', (2022), doi:10.1017/9781009157926

⁴² Carbon Tracker, *Beyond Petrostates: The Burning Need to Cut Oil Dependence In the Energy Transition*, at: <https://carbontracker.org/reports/petrostates-energy-transition-report/>

⁴³ Carbon Tracker, *Beyond Petrostates: The Burning Need to Cut Oil Dependence In the Energy Transition*, at: <https://carbontracker.org/reports/petrostates-energy-transition-report/>

⁴⁴ Natural Resource Governance Institute, *Risky Bet: National Oil Companies and the Energy Transition*, at: <https://resourcegovernance.org/analysis-tools/publications/risky-bet-national-oil-companies-energy-transition>

⁴⁵ https://inra.unu.edu/publications/articles/discussion-paper-africas-development-in-the-age-of-stranded-assets_2019.html

⁴⁶ UN Secretary General, Antonio Guterres, 6 March 2022, Twitter, @antonioguterres

⁴⁷ <https://www.bloomberg.com/news/articles/2021-06-23/building-new-renewables-cheaper-than-running-fossil-fuel-plants>

required to distribute the energy, is taken into account. And even more cost-effective when the costs of adapting to the adverse climate impacts of fossil fuels are taken into account. Building extensive new fossil fuel infrastructure is simply not an economically sound path forward for Africa. While investments into infrastructure to develop fossil fuel reserves for export may benefit European countries and certain vested interests in Africa, it is not credible as a vehicle for advancing Africa's development goals as set out in Agenda 2063, nor does it make sense as a cost-effective means to address energy access, or to undertake an energy transition.

- C. A focus on fossil fuels, including gas over the long-term, supplants investments into renewable energy, and will misdirect finance and investment towards fossil fuel rather than renewable energy infrastructure

A focus on fossil fuels in the short-, medium-, and long-term risks locking-in fossil fuel infrastructure, while delaying and undermining the development of energy systems that are more suited to Africa's energy access and transition agenda. It is widely recognised that "The lack of lock-in to centralized and expensive fossil fuel grids in most regions in Africa provides a significant opportunity to leapfrog directly to more advanced and more affordable renewable energy technologies, a transition that will be more costly on other continents".⁴⁸ The International Renewable Energy Agency (IRENA) confirms that "improved reliability, rapidly falling technology costs and supportive policies have made stand-alone and mini-grid renewable electricity solutions viable for the 80% of those without access in rural areas".⁴⁹ "One of the most compelling arguments for off-grid solutions is that they are decentralised, and because project development activities occur locally, job creation is also localised," it says. In contrast to this, the technical paper seems to draw on an orthodox and outmoded understanding of energy technologies and production to justify continued reliance on centralised energy systems, such as fossil fuels and nuclear, and to call for "regional integration to create large markets for energy services". While substantial upgrades in electricity grids and connectivity will play an important role, the objective should be providing energy access and delivering energy to productive sectors, rather than creating large energy markets *per-se*, which are more prone to rent-seeking, oligopoly control and capture by vested interests. The Committee's continued focus on fossil fuels and centralised energy infrastructure risks misdirecting attention and finance towards fossil fuels rather than towards renewable energy sources that are more consistent with achieving Africa's energy access and transition agenda.

- D. Expanding centralized infrastructure will reduce rather than increase resilience of Africa's energy system, including to the adverse impacts of climate change

Because of their high level of integration, centralised energy systems are vulnerable to a variety of shocks and disruptions across the supply chain.⁵⁰ Investing further in centralised systems – including those based on fossil fuels and nuclear energy – is likely to further compromise the resilience of Africa's energy systems when compared with systems based on renewable energy, which are typically less dependent on a centralised energy supply, extended and incomplete transmission systems, and other infrastructure, and are consequently less at risk of operational disruptions and natural shocks such as extreme weather, storms, extreme heat, fires and floods. As noted by IRENA, "renewable energy technologies are deployed in a distributed, modular fashion, making them less prone to large-scale failure. This brings advantages during severe weather events or complex emergencies, as such technologies can be rolled out quickly wherever

⁴⁸ <http://priceofoil.org/content/uploads/2021/10/Skvs-Limit-Africa-Report-2021.pdf>

⁴⁹ <https://www.irena.org/benefits>

⁵⁰ <https://www.sciencedirect.com/science/article/abs/pii/S0301421508004710>

needed, getting electricity to people without complex and time-consuming infrastructure development.”⁵¹ Faced with shocks and disruptions, including those relating to climate change, Africa would be well served by developing resilient energy systems that are fit for the future.

- E. Expanding centralised infrastructure is not consistent with fostering local ownership and democratic control, and risks making Africa’s energy system more subject to foreign ownership and influence

Development of large-scale, centralised, capital-intensive energy infrastructure based on fossil fuels or nuclear energy will also continue the current pattern of energy development in Africa which is heavily dependent on foreign capital, technology and ownership, and unduly skewed towards meeting foreign rather than African energy needs. Development of more centralised energy infrastructure also risks further consolidation of energy systems for consumption by urban populations, economic elites and polluting industries, while undermining potential to develop modern decentralised people-centred energy systems that are socially-owned and community-based. “Due to their decentralized nature, many climate solutions – from renewable energy to ecological farming methods to public transit – lend themselves better to public, cooperative, and other not-for-profit ownership models than their fossil fuel-based counterparts.”⁵² Once investments into more highly centralised infrastructure is made, Africa will be locked into high-greenhouse gas emissions, fossil fuel and nuclear dependence, reliance on foreign ownership and technology, and potential rent-seeking by African and foreign interests, potentially for decades.⁵³

- F. Expanding fossil fuel infrastructure and production fails to address Africa’s energy needs for rural development and sustainable agriculture and increases risks to agricultural communities

Fossil fuel exploitation is driving climate-induced droughts and famines across Africa, while centralised fossil fuel infrastructure has systematically failed to bring energy to rural communities, including millions of African farmers and pastoralists. An energy transition that shifts *away* from fossil fuels *towards* more decentralised, community-based approaches is needed to support a model of African rural development that benefits rural people and communities, and delivers food sovereignty and security for the continent. “The energy transition is also an important opportunity to transform our food systems away from insecurity, commodification, and fossil fuel-heavy inputs, and towards one based on ecological agriculture, democratic ownership, and ensuring enough healthy food for all”, according to African and international civil society groups.⁵⁴ Leading African energy experts confirm that:

The model of energy provision is key. Decentralised, demand-driven renewable energy can power rural and peri-urban health facilities and systems for sanitation and hygiene, and enable effective irrigation and farming everywhere. Better access to clean energy makes communities more resilient to health and other shocks, and is essential for economic development... All countries must move as rapidly as possible away from centralised fossil fuel-based energy systems towards more decentralised 100% renewable energy if we are to have any chance of keeping global heating below 1.5 °C or 2 °C.⁵⁵

⁵¹ <https://www.irena.org/benefits>

⁵² <http://priceofoil.org/content/uploads/2021/10/Skys-Limit-Africa-Report-2021.pdf>

⁵³ <https://www.sei.org/publications/carbon-lock-in-from-fossil-fuel-supply-infrastructure/>

⁵⁴ <http://priceofoil.org/content/uploads/2021/10/Skys-Limit-Africa-Report-2021.pdf>

⁵⁵ <http://ldcreeei.org/op-ed-clean-energy-is-vital-to-the-covid-19-response-in-the-worlds-poorest-countries/>

G. Expanding fossil fuel production will increase vulnerability of people in Africa and around the world, and potential for human rights violations

The IPCC states that 3.5 billion people, roughly 40 percent of humanity, are "highly vulnerable" to the impacts of climate change. Africa, in turn, is arguably the most climate vulnerable continent. Africa and its people are already being devastated by the ravages of the climate crisis – cyclones hitting Mozambique, Malawi and Zimbabwe; droughts in southern Africa; famines in the Horn of Africa; heat waves across the continent. Amnesty International states that “fossil fuels are the main driver of the climate crisis, the impacts of which are already hindering our rights to health, food, water, housing, work and even life itself.” As well as adverse climate impacts, vulnerable people “also suffer the direct human rights harms of fossil fuel extraction, production and its related infrastructure in their local communities such as contamination of local water and food supplies, air pollution, biodiversity loss, forced evictions and other human rights abuses...violating states’ obligations to protect human rights”.⁵⁶ Analysis by UNEP demonstrates how oil extraction has contaminated soil and water bodies in the Niger Delta, and led to health crises including a rise in cancers, birth defects, breathing difficulties, and contributed to the brevity of life in the oil field communities which stands at 40 years.⁵⁷ In Eastern Africa, the East African Crude Oil Pipeline is undermining human rights, causing 12,000 families to lose land, and endangering sensitive and vital ecosystems, according to non-governmental organisation Oxfam.⁵⁸ In Mozambique, hundreds of rural families have been removed from the homes, farmland and fishing grounds to build the infrastructure required to exploit fossil gas reserves in Cabo Delgado.⁵⁹ Further expansion of fossil fuel infrastructure increases the vulnerability of African populations to both climate-related and direct impacts from the fossil fuel industry, breaching African states’ obligations to protect human rights.

H. Expanding fossil fuel production increases risks to public health in Africa

The World Health Organisation identifies burning fossil fuels as the primary cause of air pollution, which “is considered by WHO as the greatest environmental risk to health.”⁶⁰ In 2018, fossil fuel-related air pollution caused a staggering 1 in 5 deaths worldwide.⁶¹ Fossil fuels have been identified as “world's most significant threat to children's health and future”.⁶² Health problems from fossil fuels include asthma, pneumonia, bronchitis, upper respiratory and eye problems, heart attack, heart disease, neurological deficits, immune system problems, and organ damage.⁶³ The Committee’s proposal to expand energy access drawing on oil and coal in the short- and medium-term, and fossil gas in the short-, medium- and long-term, threatens to exacerbate health problems on the continent. By contrast IRENA notes that “wind, solar and hydropower produce little or no air pollution. Other renewable energy technologies, such as

⁵⁶ <https://www.amnesty.org/en/documents/IOR40/5405/2022/en/>

⁵⁷

<https://static1.squarespace.com/static/620ef5326bbf2d7627553dbf/t/622824a543109c49186ef913/1646797999602/CSO.Equity.Review-2021-A.Fair.Shares.Phase.Out.Of.Fossil.Fuels.pdf>

⁵⁸ <https://uganda.oxfam.org/latest/press-release/companies-must-take-action-respect-rights-communities-risk-east-africa's-oil>

⁵⁹ <https://ja4change.org/2021/04/29/total-runs-from-its-responsibilities-with-its-force-majeure-announcement-on-mozambique-gas/>

⁶⁰ <https://www.who.int/vietnam/news/feature-stories/detail/ten-threats-to-global-health-in-2019>

⁶¹ <https://www.theguardian.com/environment/2021/feb/09/fossil-fuels-pollution-deaths-research>

⁶² <https://pubmed.ncbi.nlm.nih.gov/29295510/#:~:text=Fossil-fuel%20combustion%20by-products%20are%20the%20world%27s%20most%20significant,is%20the%20most%20important%20human-produced%20climate-altering%20greenhouse%20gas.>

⁶³ <https://blog.arcadia.com/10-health-problems-fossil-fuels/>

biomass and geothermal, do emit air pollutants, but at much lower rates than most conventional fuels. Air pollution has become a critically important issue in many developing countries, where up to 2.9 billion people still rely on wood, coal and charcoal for cooking and heating homes. Cleaner options, including solar technologies, can play a role in this regard.”⁶⁴

I. Expanding fossil fuel production will increase threats to Africa’s ecosystems and biodiversity

Fossil fuels are the main driver of climate change, and climate change is becoming the largest driver of biodiversity loss worldwide. The fossil fuel industry and its products accounted for over 90% of global industrial emissions and around 70% of all human emissions in 2015, the year the Paris Agreement was signed.⁶⁵ Climate change, in turn, is among the five direct drivers of change in nature with the largest relative global impacts so far,⁶⁶ and is poised to become the largest driver according to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).⁶⁷ Expansion of fossil fuel production in Africa and the associated emissions will accelerate the degradation of Africa’s natural systems and undermine international targets relating to biodiversity. As well as climate-related threats, the expansion of fossil fuel infrastructure presents direct threats to Africa’s ecosystems and biodiversity. Planned fossil fuel infrastructure to develop the East African Crude Oil Pipeline, for example, is shown to create risks to biodiversity, protected areas, communities and water resources.⁶⁸ The networks of infrastructure enabling exploration, extraction, transportation and combustion of fossil fuel — mines, wells, pipelines, refineries, roads and transportation infrastructure — is already degrading nature and causing direct and immediate harm and will worsen if that infrastructure is expanded.

J. Expanding fossil fuel production risks exacerbating the “resource curse” associated with fossil fuels, and is a strategic error for Africa and its partners

The relationship between the presence of fossil fuels and other mineral resources, and the absence of adequate social, economic and political outcomes – known as the “resource curse” – is well documented. Fossil fuels are documented as causing adverse impacts to local communities: as increasing the likelihood of civil war and armed separatist movements; as strengthening the hands of undemocratic political regimes – enabling small powerful elites to extract rents and maintain economic and political control, while their populations lack access to energy, food and other essential services and remain impoverished.⁶⁹ Just as Europe is seeking to end a war and defund a fossil-funded autocratic regime in Russia, it is apparently seeking to scale up the financing of fossil fuels in Africa. Increasing investments into coal, oil or gas in Africa risks entrenching fossil fuels, poverty and climate change over the longer-term, placing both Africa and its neighbouring countries and regions at risk. Falsely classifying fossil gas or nuclear as “green” – as the European Union has recently done⁷⁰, presumably in part to “greenwash”

⁶⁴ <https://www.irena.org/benefits>

⁶⁵ Carbon Majors Database, *Carbon Majors Report* (2017), at <https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf?1499691240>

⁶⁶ <https://unfccc.int/news/ipbes-climate-change-is-a-key-driver-for-species-extinction>

⁶⁷ <https://ipbes.net/news/Media-Release-Global-Assessment>

⁶⁸ Stockholm Environment Institute <https://mapforenvironment.org/story/The-East-African-Crude-Oil-Pipeline-EACOP-a-spatial-risk-perspective/111>

⁶⁹ See e.g. <https://doi.org/10.1177/0022343304043773>; <https://doi.org/10.1177/0022343309350015>; <https://doi.org/10.1016/j.erss.2020.101690>

⁷⁰ <https://www.nytimes.com/2022/07/06/world/europe/eu-green-energy-gas-nuclear.html>

dangerous fossil gas and nuclear investments into Africa, presents a gift to fossil-fuel funded autocratic regimes everywhere, including to Russia, and is a major strategic error for Africa, for Europe and for countries around the world seeking to avoid conflict, promote peace, advance democracy, and ensure a stable climate.

VII. Reliance on nuclear energy and hydrogen gas raise additional concerns

A. Nuclear energy threatens major adverse impacts in Africa and world-wide, and is slow, expensive and unsuitable to address Africa's requirements for universal energy access

The technical paper, and the Committee's proposed common position, seek to complement the long-term use of fossil gas with reliance on nuclear energy as part of an energy transition based on "all resources and approaches". Yet nuclear energy, like fossil fuels, is costly, capital-intensive and, as a centralized energy system, unsuitable to address universal energy access; while also raising a host of additional concerns. Nuclear energy produces nuclear waste that remains radioactive and toxic for hundreds to thousands of years, and cannot be easily managed; it increases the chances of nuclear proliferation by using technology and producing substances that can be used in the development of nuclear weapons; it presents a security risk and can be targeted by terrorists or foreign entities risking populations in an entire region; it may lead to catastrophic nuclear accidents such as those occurring in Chernobyl in 1986 and Fukushima a mere decade ago; it increases the risks of illness and disease, such as cancer; it faces limitations and foreign dependencies due to the need for nuclear fuel; it is expensive to build, run and operate; it is slow to build and deploy, and often subject to delays and cost overruns; it is reliant on technologies owned by foreign corporations and countries, reducing Africa's capacity for self-reliance; and it is highly centralised, and so ill-suited to achieve the common position's stated aim of ensuring universal energy access.⁷¹ Stanford Professor, Mark Jacobson, states that: "New nuclear power costs about 5 times more than onshore wind power per kWh. Nuclear takes 5 to 17 years longer between planning and operation and produces on average 23 times the emissions per unit electricity generated. In addition, it creates risk and cost associated with weapons proliferation, meltdown, mining lung cancer, and waste risks. Clean, renewables avoid all such risks."⁷² Analysis of nuclear and renewables in over 120 countries confirm that renewable energy is significantly more effective than nuclear in reducing carbon-emissions, and that in some developing countries nuclear programmes actually pushed carbon emissions higher.⁷³ They also finds that the two "do not mix well", and tend to crowd each other out, locking in energy infrastructure that is specific to their mode of power production. According to the authors, "countries planning large-scale investments in new nuclear power are risking suppression of greater climate benefits from alternative renewable energy investments".⁷⁴ The finding "exposes the irrationality of arguing for nuclear investment based on a 'do everything' argument".⁷⁵

B. Hydrogen produced using *nuclear energy* is not "green" and adds to the risks of nuclear energy, the risks and limitations associated with centralized, large-scale hydrogen production

⁷¹ See, e.g., <https://www.energysystems.com/10-disadvantages-of-nuclear-energy/>

⁷² <https://eu.boell.org/en/person/mark-z-jacobson>

⁷³ <https://www.nature.com/articles/s41560-020-00696-3>; see also <https://energypost.eu/renewable-energy-versus-nuclear-dispelling-myths/>

⁷⁴ <https://www.sciencealert.com/here-s-why-nuclear-won-t-cut-it-if-we-want-to-drop-carbon-as-quickly-as-possible>

⁷⁵ <https://www.sciencealert.com/here-s-why-nuclear-won-t-cut-it-if-we-want-to-drop-carbon-as-quickly-as-possible>

The technical paper, and the outcome of the Technical Committee, advocate hydrogen gas as part of Africa's long term energy mix, and link nuclear energy and hydrogen gas as energy technologies over the longer-term (see Figure 1), while also calling for the AUC to collaborate in developing "a continental programme on green hydrogen to create sustainable and cost-effective domestic and international markets for green hydrogen". The focus on nuclear energy and hydrogen gas, the references to "international markets", along with the parallel recommendation "to accelerate the implementation of appropriate frameworks to utilize nuclear energy" all point to a strategy of using nuclear energy to produce hydrogen gas for export markets. This coincides with European Parliament's June 2022 decision to falsely re-classify fossil gas and nuclear energy as "green".⁷⁶ Read together with the "common position" proposed for African Energy Ministers, this would clear the deck for substantial expansion of fossil gas infrastructure in Africa in order to export gas to Europe, and subsequently for European nuclear technology to be used to produce hydrogen gas, also for European consumption. The European decision, in turn, would enable it to characterise as "green" a strategy of turning Africa into its feedstock for fossil gas and nuclear-powered hydrogen, despite the fact that fossil gas is more climate-polluting than all other fossil fuels (as noted above); that nuclear involves very considerable risks to Africa (as noted above), centralised approaches focusing on fossil fuels; that nuclear and hydrogen are not well suited to addressing Africa's need for energy access; and that focusing on Europe's energy needs diverts attention from Africa's wider objectives of providing universal access for all Africans, and securing funding for energy sources and technologies that best serve its development. As such, the combined focus on nuclear and hydrogen gas risks skewing Africa's energy mix towards foreign interests and away from Africa's genuine needs for energy access and transition.

- C. Hydrogen produced using *renewable energy* could squander Africa's renewable energy potential, and skew it away from meeting Africa's needs towards foreign and export interests, particularly in Europe

Just as producing hydrogen from nuclear involves the risks of nuclear energy; producing hydrogen from genuine renewable energy involves the risk of mis-applying Africa's substantial renewable energy potential. Africa has the highest untapped hydropower potential worldwide, yet has only realised around 11% of its potential.⁷⁷ Development of these renewable energy resources could make a major contribution to enhancing energy access, and enabling an energy transition that supports Africa's development. But a focus on hydrogen is skewing attention towards harmful large-scale developments, rather than to projects that are tailored to meet the needs of local and regional communities, businesses and economies. These projects, in turn, are being captured by foreign billionaires and corporations to convert Africa's renewable energy resources into opportunities to service foreign markets. The proposed Grand Inga Dam, for example, is planned to produce 42GW, with foreign billionaires intending to divert electricity produced from the scheme to produce hydrogen, steel and aluminium for export to European markets.⁷⁸ As well as sponsoring dangerous and damaging energy projects, and diverting renewable energy resources, this would waste them. Converting renewable energy into hydrogen gas results in substantial energy losses (in the order of 20-40% over direct use of renewables), so upwards of 1/3 of the energy used for hydrogen could be lost, with residual energy converted into commodities that predominantly benefit foreign billionaires, corporations

⁷⁶ <https://www.nytimes.com/2022/07/06/world/europe/eu-green-energy-gas-nuclear.html>

⁷⁷ <https://www.hydropower.org/publications/2021-hydropower-status-report>

⁷⁸ Australian mining magnate, Andrew Forrest of Fortescue Metals Mining Group, has reportedly been granted, subject to final discussions, exclusive rights to develop the project according to mining sources: <https://www.mining.com/inga-hydropower-could-be-key-to-the-green-electrification-of-africa-report/>

and consumers. Hydrogen, if it is produced from genuine renewable energy sources, at a medium-scale, and for use by Africans, could form part of a viable energy access and transition strategy. But the trade-offs between using renewable energy directly, and using it for the production of hydrogen gas, will need to be carefully weighed, and aligned with models of economic development that are focused on meeting the needs of Africans.

VIII. The proposed approach places at risk Agenda 2063 and UN Sustainable Development Goals

Agenda 2063 seeks a prosperous Africa based on inclusive growth and sustainable development. The UN Sustainable Development Goals seeks “to end poverty, protect the planet and ensure prosperity for all by 2030”. The two sets of goals are closely linked, as noted by the African Union Commission.⁷⁹ For reasons such as those set out above both development agendas are threatened by the fossil fuel industry, which has been documented as posing critical dangers to all 17 sustainable development goals, according to a recent review of more than 400 academic articles (see Annex for a summary of threats).⁸⁰ The direct impacts of fossil fuel infrastructure undermine the SDGs due to effects on public health, human well-being and the stability of natural and human systems. Fossil fuelled carbon dioxide, methane and other emissions will intensify climate change and its impacts will become more severe, further impeding progress towards the SDGs in Africa and worldwide. According to the review, “The exploration, extraction, refining, transportation and combustion of oil, gas and coal is making it impossible for the global community to meet the SDGs, threatening lives and livelihoods, and the ability of the planet to sustain human well-being”.⁸¹ An African common position seeking to expand energy access drawing on coal and oil in the short- and medium-term, and fossil gas in the short-, medium- and long-term, as well as not achieving its own objectives of energy access and transition, will likely fail to achieve – and is almost certain to undermine – multiple other development goals including those in Agenda 2063 and the SDGs.

IX. The proposed approach does not seem to be based on stated objectives relating to climate change, energy transition or energy access; but appears to be driven by interest relating to fossil fuel expansion, particularly in the fossil gas sector

In light of the points made above, the paper and the proposed “common position” is best understood *not* as a position motivated primarily by the objectives of energy access and transition. By focusing substantially on centralized, large-scale, climate polluting and dangerous technologies of the kind that have not delivered energy access in Africa, and that are not well placed to deliver a low-carbon energy transition, and by failing to include specific recommendations for scaling up the production of renewable energy (despite including recommendations relating to fossil fuels, nuclear and hydrogen gas), the proposed “common position” seems more inclined towards clearing the deck for certain African and European vested interests to increase investments into energy infrastructure in Africa with the goal of exporting fossil gas and subsequently nuclear-powered hydrogen to Europe. In line with the new EU taxonomy, these investments could be falsely classified as “green”, and Europe can then falsely claim it is supporting Africa’s low-emission and climate-resilient development at the

⁷⁹ <https://au.int/en/agenda2063/sdgs>

⁸⁰

https://static1.squarespace.com/static/5dd3cc5b7fd99372fbb04561/t/6296213edccb884277d2a10d/1654006083637/FFN_MVSA003+Report+-+Executive+Summary_V4-FA-Screen-Single.pdf

⁸¹

https://static1.squarespace.com/static/5dd3cc5b7fd99372fbb04561/t/6296213edccb884277d2a10d/1654006083637/FFN_MVSA003+Report+-+Executive+Summary_V4-FA-Screen-Single.pdf

African COP27. Rather than delivering modern, affordable, low-emission, renewable energy assets into the hands of African businesses, communities and households – enabling genuine energy access as part of a genuine low-emission energy transition – it could pave the way for consolidation of Africa’s energy system by and for elite and foreign interests. While paying lip-service to renewable energy, the proposed common position is compatible with an attempt to carve out of international climate policy the right by some Africans to continue to exploit “certain resources” while claiming “energy development space”, and arguably reflects the interests of the fossil fuel and nuclear industries, and of various energy ministries and economic and political elites in Africa and Europe, rather than of African citizens and of all people and countries seeking sustainable development within a stable climate.

- X. The proposed approach is irreconcilable with success at COP27, and so further dialogue is required with officials at the technical, Ministerial and Head of State level relating to climate change

The most favourable interpretation of the proposed common position is that African Ministers responsible for Energy and Transportation were not well informed when developing the draft position. Without an extended process of input and consultation at the national and continental level – including with the agencies responsible for climate change – the Specialized Technical Committee has proposed a position that is not reconcilable with its stated objectives of enabling energy access and transition, with African and international climate goals, or with Africa’s wider development objectives.

The technical paper on which the position is founded fails to provide an adequate basis for defining an African Common Position on Energy Access and Transition. It lacks analysis of the causes of energy poverty or ways to achieve universal access, and fails to examine the nature, scale or speed of transition required in light of climate science. It ignores long-term scenarios relating to structural risks and stranded assets. It includes no analysis of the potential contributions of different energy sources, nor does it offer specific recommendations for realizing the continent’s massive renewable energy potential. Nor does it recognise the inherent trade-off between different energy sources, or the risks of locking in long-term reliance on polluting and dangerous energy sources.

As a result, the Ministers responsible for Energy and Transportation have proposed a common position that is not suited to achieve its own aims of enabling universal energy access, or of transitioning to low-emissions and climate resilient energy systems. Despite its references to energy access and transition, the proposal’s emphasis on fossil fuels in the short-, medium- and long-term is neither compatible with rapidly scaling up “energy access”, nor can it credibly be regarded as a “transition” to low-emissions or clean energy sources.

Despite being proposed for endorsement and support at COP27, the proposed approach is inconsistent with the findings of the Intergovernmental Panel on Climate Change, the International Energy Agency, or the UN Production Gap Report. Locking-in reliance on fossil fuels in the short-, medium- and long-term is irreconcilable with the Paris Agreement’s obligation to “pursue efforts to limit the temperature increase to 1.5 °C, and with the African Common Position on Climate Change, which has championed a limit of 1.5 °C, on the basis that warming above this level is incompatible with Africa’s interests and would be catastrophic to Africa. Indeed, by locking-in fossil gas over the long-term – continuing carbon emissions and triggering a potential methane bomb – it could tip Africa and the world into warming well beyond 1.5 °C.

The proposed approach also places at risk Africa's wider development priorities including those in Agenda 2063 and the UN Sustainable Development Goals. Continued reliance on fossil fuels increases structural risks, and potential for stranded assets, communities and countries. It is uneconomic and represents an unsound allocation of scarce resources for Africa's development. It would lock-in outmoded energy systems, and supplant investments into clean, modern, affordable renewable energy systems that are better suited to advancing Africa's energy access and transition agenda. Highly centralised fossil fuel systems are also less resilient to external shocks, more reliant on foreign technology, capital and ownership than decentralised systems, and difficult to reconcile with fostering local ownership and democratic control. Compared with renewable energy, it also increases climate-related risks to African farmers, while failing to meet their needs for decentralised systems that support rural development, and enhance food sovereignty and security. More emissions, and more wells, pipelines and polluting infrastructure, also pose a threat to public health, human rights, and Africa's ecosystems and biodiversity.

Just as the position's reliance on fossil-fuels is mis-placed, its emphasis on nuclear energy systems is problematic given that they are centrally planned and so unsuited to provide energy access, costly compared to renewables, slow to implement, involve foreign dependencies for fuel stocks, technology, capital and maintenance, and involve risks relating to radioactivity and toxic waste, illness and disease, nuclear proliferation, vulnerability to terrorism, and potential for catastrophic nuclear accidents such as those in Chernobyl and Fukushima.

Read carefully, in light of Europe's recent decision to reclassify fossil gas and nuclear as "green", the proposed common position looks less like an African agenda for "energy access and transition", and more like a plan by African and European fossil fuel, nuclear and energy interests to convert Africa into a long-term feedstock for fossil fuels, particularly fossil gas, for European consumption, and to use nuclear energy to produce hydrogen gas, also for export to Europe. It is compatible with an approach that benefits European countries, and African elites, while side-lining the needs of hundreds of millions of Africans to genuine energy access and transition. One that broadly resembles the approach adopted by Europeans to Africa for much of our shared history.

Putting such an approach forward at COP27 risks calling into question the credibility of the COP itself, as well as the UN climate change negotiations and the wider United Nations system of which it is part. Against this background, Africa's technical experts, Ministers and Heads of State responsible for climate change, and Egypt as the Presidency of COP27, and all concerned countries, should decline to endorse or support the proposal, ensure that it does not secure formal adoption by other organs of the African Union, and seek input on energy access and transition initiatives that avoids the pitfalls of fossil fuels and nuclear energy, and build on potential to harness Africa's huge potential in renewable energy to achieve universal energy access, transition to low- and zero-emission energy systems, advance its development aspirations, and achieve success in COP27 and beyond.

Annex: Dangers posed by the fossil fuel industry to the 17 UN Sustainable Development Goals and by association to Agenda 2063 (see [here](#) for linkages)

- No poverty (SDG 1) - Fossil fuels are the primary driver of climate change, which is set to push 122 million more people into extreme poverty by 2030. Globally, governments spend three times more money on fuel subsidies than the annual amount needed to eradicate poverty
- Zero hunger (SDG 2) - Increases in global temperatures, shifting rainfall patterns, extreme weather events, and elevated surface carbon dioxide concentrations from burning fossil fuels will reduce the yields of key crops and push millions into food insecurity. Fossil fuel production and offset schemes pull vast amounts of land away from agricultural uses.
- Good health and wellbeing (SDG 3) - Roughly 8.7 million people died prematurely due to fossil fuel pollution every year between 2012 and 2018. The worsening climate crisis, driven by fossil fuels, is linked with increases in disease, infant mortality and displacement, with devastating impacts on health and wellbeing.
- Quality education (SDG 4) - Children born in 2020 are expected to experience between two and seven times as many extreme weather events as someone born in 1960, disrupting their education and future prospects. Fossil fuel exporting states are vulnerable to fluctuating prices and often underfund the provision of education
- Gender equality (SDG 5) - Climate change exacerbates existing gender inequalities, particularly during natural disasters and extreme weather events. Women disproportionately bear the health and social burdens of fossil fuel processes, such as gas flaring.
- Clean water and sanitation (SDG 6) - Fossil fuel production and the waste it generates are proven to contaminate water supplies, which can lead to increased outbreaks of disease and illness. Broader climate impacts, like rising temperatures and flash flooding, have been shown to increase water insecurity and disease outbreaks.
- Affordable and clean energy (SDG 7) - 770 million people are estimated to remain without access to cheap, reliable electricity, of whom 570 million live in least developed countries (LDCs). While the cost of providing universal energy access would only cost \$41 billion annually, total fossil fuel subsidies came to \$5.9 trillion in 2021
- Decent work and economic growth (SDG 8) - 1.2 billion jobs directly rely on a healthy environment, which is being undermined by fossil fuelled-climate change. By 2030, heat stress alone could lead to the loss of over 2% of total working hours worldwide every year. It is estimated that a green economy transition will lead to a net gain of approximately 18 million jobs.
- Industry, innovation and infrastructure (SDG 9) - Fossil fuel companies are expected to spend \$527 billion on new fossil gas exploration and \$405 billion on oil exploration by 2030. This will lock economies into emissions for decades at a time when they need to decrease urgently.
- Reduced inequality (SDG 10) - Fossil fuel pollution disproportionately impacts poorer and more vulnerable communities, while fossil fuel subsidies benefit the richest members of society the most. The risk of stranded assets could further entrench global wealth inequalities.
- Sustainable cities and communities (SDG 11) - Fossil fuel pollution is making urban life a health hazard, with 98 percent of cities with populations over 100,000 in low- and middle-income countries exceeding WHO guidelines for particulate matter. As the climate crisis accelerates, many cities will suffer due to sea-level rise and extreme heat.
- Responsible production and consumption (SDG 12) - Humanity is not shifting away from fossil fuels quickly enough, with the global “material footprint” increasing by 70 percent

between 2000 and 2017. In 2020, global fossil fuel subsidies reached \$5.9 trillion—equivalent to \$11 million per minute.

- Climate action (SDG 13) - Fossil fuel firms are actively undermining climate action through lobbying, donating to politicians and political parties and funding misinformation. Despite all their promises and pledges, fossil fuel firms are not driving the energy transition, they are subverting it.
- Life below water (SDG 14) - Fossil fuels are fundamentally altering the chemistry of the oceans, with acidification and extreme heat stress threatening marine life and ecosystems. Fossil fuel production processes are proven to disrupt key feeding and breeding areas, which can have huge implications for global populations of marine species.
- Life on land (SDG 15) - The extraction, transportation and combustion of fossil fuels drives the fragmentation of habitats, contaminates the water and feeding grounds wildlife populations rely on and, when these infrastructures fail, ecosystems can face total annihilation.
- Peace, justice and strong institutions (SDG 16) - Oil and fossil gas are associated with higher levels of conflict and lower levels of democracy. Despite its invasion of Ukraine, Russia is expected to receive \$321 billion from energy sales by the end of 2022.
- Partnerships for the Goals (SDG 17) - Fossil fuel firms do not play by the rules, avoiding tax, enjoying tax exemptions and suing governments pursuing ambitious climate action. In 2019-2020, 62 fossil fuel companies paid zero tax in Australia despite receiving revenues of \$81.4 billion.