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HIGH-LEVEL DIALOGUE ON
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High-Level Dialogue on Energy 2021

Annotated Outline of the Theme Report on Energy Finance and Investment¹

Co-leads: European Investment Bank, International Energy Agency
and the UN Economic Commission for Africa

Goal

- Inclusive economic growth and enhanced livelihoods will mean rising global demand for energy related services, especially in countries such as those in Africa with a high share of people without access to electricity.
- Ensuring that these needs are met while bringing down emissions will require rapid improvements in energy efficiency and a major ramp-up of investment in the provision of clean, reliable, and affordable energy. This is the common thread that can meet the objectives of SDG7 and net zero emissions.
- Achieving SDG 7 targets on energy access would require annual investment of around USD 40 billion per year in the period to 2030 (*IEA World Energy Outlook 2020*). This is a small fraction of total energy investment needs and can benefit one third of the global population while improving resilience to the health crisis.
- To get the world on track for net zero emissions by 2050, the amount of investment required in clean electricity (generation and grid/storage infrastructure) will need to rise to more than \$1.6 trillion per year by 2030. This compares with \$350 billion invested in these areas in 2020 (*IEA World Energy Outlook 2020*). In regions like Africa, installed electricity capacity will need to double from its present value of 250 GW by 2030 and increase at least five-fold by 2050 (*UN ECA estimates*).
- Achieving shared goals would also require major increases in spending outside the provision of clean electricity. Energy efficiency investment lags behind, for example, despite being a pillar of sustainable development and often having the lowest cost. Spending on more efficient buildings; industrial processes and transport needs to more than double during this decade
- There is, therefore, an urgent need to shift gear in terms of energy investment to meet 2030 SDG7 targets, support attainment of the other SDGs and enable a just transition to the global energy transformation that puts the world on track for carbon neutrality by 2050.
- This is a huge opportunity for governments, investors and societies. Governments have mobilised trillions of dollars to fight the shock of the Covid-19 lockdowns. This shows that when the global community is faced with a common threat, mobilising international cooperation can achieve common objectives. The critical question is how to use these public resources wisely whilst further mobilizing the trillions of dollars needed to attain these objectives.
- This Theme Report proposes ambitious innovative fit-for-purpose solutions and recommendations that could help mobilize public and private investment rapidly to create impact across geographies over the coming years to financing energy access, the energy transition and enabling of the other SDGs. Furthermore, the report shows how these solutions and

¹ Draft annotated outline for review by TWG members. Made available on 12 March 2021.

recommendations could be implemented in ways that are collaborative across a range of stakeholders with a focus on outcomes.

Context

- Total capital investment in the energy sector in 2020 was around \$1.5 trillion, down almost 20% on the previous year due to the impacts of the pandemic (*IEA World Energy Investment 2020*). Of this sum, the amount spent on clean energy technologies, including energy efficiency, was around \$600 billion – some 40% of the total.
- All market segments of the energy sector have been adversely impacted, to varying degrees, by the economic downturn following the outbreak of the COVID-19 pandemic. Value chains were by the outbreak itself, liquidity constraints have emerged that stifled grid and distributed renewable energy investments, new connections and existing operations of utilities and private operators.
- Compared with fossil fuel investments, clean energy spending was relatively resilient through the Covid crisis but there has been no noticeable uptick since 2015, when the Paris Agreement was signed. Although due in part to the dramatic fall in unit costs for some key technologies, notably solar PV and wind, this amount remains well short of what would be required to reach the world's climate and other sustainable development goals. Annual investment in renewables alone will need to triple by 2030, to \$1.1 trillion.
- There is a clear gap in perceptions in many parts of the world between the financial community, who see a lack of clean energy investment projects ready for financing, and the perspective of some countries and project developers, who feel that they do not have access to low-cost finance for sustainable energy.
- Bridging this gap to meet the 2030 SDG targets and the 2050 goal of net zero emissions will require the public and private sectors working together to align incentives and increase the speed and scale of investments, particularly in the case of developing countries.
- Keeping costs low, including financing costs, will be critical to ensure the energy transition is affordable, one of the objectives of SDG7. While most of the investment needed can save on fossil fuel costs, they are intensive in capital, and this capital needs to be repaid over time, including a return.
- As the energy sector is decarbonised, its total costs will depend less and less on the price of fossil fuels and increasingly on financing costs. The Covid-19 pandemic has exacerbated imbalances in the cost and availability of capital across different economies, as some developing economies face increased borrowing costs due to increased debt and perceptions of risk.

Energy access: getting back on course to 2030

- There has been significant progress in recent years in increasing the number of people with access to clean and affordable energy. The number of people without access to electricity fell from 1.2 billion in 2010 to 789 million in 2018, although the number of people without access to clean cooking reduced by only 200 million people, from 3 billion to 2.8 billion in 2018 (*SDG 7 Tracking report 2020*).
- Despite the critical role of energy in catalysing economic development and supporting people's health and livelihoods, the world remains severely off track to achieve universal access to affordable, reliable, sustainable and modern energy for all by 2030, especially so in Africa.
- The COVID-19 pandemic has exposed the severe vulnerabilities and structural inequalities resulting from chronic under investments in energy access in some developing countries. Health facilities are under-energised and so unable to deal with increasing numbers of patients from the pandemic, while critical equipment, handling and distribution of vaccines is hampered by lack of access to secure and reliable energy, in addition to lack of adequate number of doctors and limited availability of intensive care facilities.

- Moreover, poverty induced by the pandemic could lead to around 6% of the population of sub-Saharan Africa who currently have electricity connections losing the ability to afford basic electricity services during 2020 (*IEA World Energy Outlook 2020*).
- The pandemic has underlined the urgency of ensuring that the world gets on track for the SDG 7 goals. However, it has also exacerbated the affordability of energy for large parts of the population and weakened the financial situation of many of the entities that are promoting access, including utilities and rural electrification companies.

Clean energy transitions towards net zero emissions by 2050

- Over the last year, many of the planet's largest economies and companies have announced that they aim to bring their emissions down to net zero by the middle of this century or soon after. Making economies carbon-neutral by 2050 is a huge undertaking, and at heart it is an energy challenge, as the energy that powers our daily lives produces three-quarters of global emissions.
- Making economies carbon-neutral is a challenge that goes well beyond setting long-range targets. Nothing short of a total transformation of the world's energy infrastructure is required — a undertaking of unprecedented speed and scale. As with the achievement of energy access goals, the next decade needs to be a decade of decisive action.
- While some aspects of clean energy investment showed strong resilience during the global pandemic, notably solar PV and wind for power generation, other key pillars of energy transitions such as energy efficiency have faced a setback. In addition, the social implications of the energy transition require close attention from policymakers.

Clean energy supply and infrastructure

- Reaching net-zero will require a large scale-up of investment across a wide range of clean energy supply technologies and infrastructure, led by renewable sources of energy, alongside a concerted effort to develop integrated energy systems. Investment in the electrification of the transport sector and of industry will be a major component of energy transitions.
- Future deployment of renewable energy will reap the benefits of a decade of dramatic cost declines for some key technologies. However, the rest of the system cannot stand still as shares of wind and solar PV rise. Investment in robust grids and a wide range of sources of supply- and demand-side flexibility will be essential to value renewables and maintain electricity security.
- For parts of the energy sector where direct electrification is difficult or not cost-effective, a range of low-carbon and sustainable fuels will be increasingly important, including low-carbon hydrogen. Carbon capture utilisation and storage technology can play critical roles in some areas, and some countries will also invest in other low carbon technologies such as nuclear power. Many of the technologies required in hard-to-abate sectors are at demonstration or prototype stages, so public support for clean energy innovation remains essential
- Finding solutions to climate change cannot be just a question of building clean from now on. It is also a question of cleaning up what we already have, given the long operating lifetimes of some coal-fired power plants, or iron and steel or cement plants. Finding ways to deal with these emissions, and financing the necessary abatement measures, is vital.

Energy efficiency

- Significant investment in energy efficiency is required to reduce the energy consumption needed to meet rising demand for energy-related services, and reach a level compatible with reaching net-zero emission on the supply side.
- Global improvements in energy efficiency, as measured by the energy intensity of the global economy, have been declining since 2015. The Covid-19 crisis added an extra level of stress. Energy intensity improved by only 0.8% in 2020, roughly half the rates, corrected for weather, for

2019 (1.6%) and 2018 (1.5%). This is well below the level needed to achieve global climate and sustainability goals.

- Uncertainty about economic conditions, strains on household and corporate budgets and continued low fuel prices could further delay spending on energy efficiency improvements across the global economy, in more efficient buildings, appliances, industrial equipment and vehicles.
- In all sectors, the design of government stimulus packages implemented as part of Covid-19 recovery policies will heavily influence technical efficiency by supporting investments in new stock, and structural changes.
- Energy efficiency is important too for energy access: the reduced costs of energy efficient appliances is one of the key factors that has enabled increased use of off-grid solutions such as solar home systems.

The importance of a sustainable recovery

- As economies recover from the shock of the pandemic, a focus on clean energy investment offers a huge opportunity to stimulate economic activity, provide reliable clean energy, employment, and put global emissions into structural decline.
- The recovery from Covid-19 also has to be a period of acceleration in progress towards SDG7. Seizing the opportunity of fiscal responses can support investment needed to meet access and sustainable energy goals. An increasing number of geographies are allocating an important share of their recovery packages to support energy efficiency and renewable investment.
- One of the most important co-benefits of energy efficiency is job creation. Many measures taken to improve the efficiency of cities, buildings and transport systems are labour intensive.
- Ensuring at the same time the rapid absorption of public money available and the compatibility of the support with a green recovery will be a key challenge.

The rise of sustainable finance

- Financial markets are getting greener and increasingly reward ambitious transition policies. As a result, financing is expected to become increasingly available for clean energy projects, which could translate in lower financing costs. This trend is accelerating across the financial sector.
- New rules on corporate disclosure and emerging sustainability commitments by these actors have the potential to significantly bolster capital allocation towards clean energy
- The market for sustainable debt, including green bonds is growing rapidly. Governments and companies are expected to issue USD 500 billion of green bonds in 2021 alone, an increase of 50% of the stock of green bonds. The EU sustainable finance action plan is defining a taxonomy to increase transparency of climate action and environmental sustainability, contributing to set global standards for this asset class, while other countries are also developing approaches to classifying investments in line with sustainability goals.
- Investment funds and equity investors are taking climate risk increasingly seriously. Transition risk is priced in for carbon-intensive projects and companies. Many asset managers are in the process of reducing their exposure to, or divesting entirely, from energy activities and companies involved in coal, oil and gas.)
- An increasing number of investment banks are setting lending targets for climate action and excluding investment that are not in line with the Paris agreement. Many banks have announced that they would no longer finance coal projects. The EIB has also phased out financing to all energy projects relying on unabated fossil fuels, including natural gas.
- Public financiers, including MDBs and NDBs, also have an important role to play to finance energy sector. They usually provide low cost and long term financing that is not otherwise available and their can crowd-in private financing. Given their limited resources, their focus is usually on projects where their additionality is the highest.

- Central banks as well are increasingly seeing climate change as a source of financial risk. The Network for Greening the Financial System is a network of 83 central banks and financial supervisors advocating a more sustainable financial system. Banks are being under supervisory pressure regarding climate-related risks.
- In those countries with adequate savings pools, there is good potential for financial learning among local actors, which can further unlock low-cost finance, when appropriate policies are put in place.

Challenges

- Accelerating the flow of public and private investment to meet the world's climate and energy access and development needs will require multiple policy tools and instruments to address a range of market failures and to appropriately allocate and manage risks. These range from supportive energy policies and price signals (notably via fossil fuel subsidy removal and carbon pricing), to economy wide issues of well-functioning markets and effective governments, to the effective use of financing tools and development finance to mobilise private investment.
- The available financing with appetite for sustainable finance does not always match with the risk-profile of clean energy investments. There is a need for wide range of de-risking instruments to bridge the financing gap for clean energy projects.
- There is no such thing as a typical clean energy project or a typical energy efficiency project, and the financial challenges vary widely across different sectors and geographies. However, when market, policy and regulatory frameworks successfully mitigate real and perceived risks associated with investment, finance becomes available and financiers compete for projects. The private sector will play an important role to finance the energy transition; these are the dominant actors in many of the clean energy areas (although not in all). The financial capabilities and strategies of large private companies will guide a significant part of investment. Meanwhile, small and medium sized enterprises (SMEs) everywhere face greater financing constraints, which have been exacerbated by the pandemic
- State-owned enterprises dominate the picture in many developing economies for fuel supply, thermal generation and electricity networks. The financial sustainability and strategic choices of these enterprises, and their host governments, will be critical for prospects of expanding finance to reach clean energy goals.
- Commercial viability and the ability of consumers to pay remains a major constraint. It will be essential to increase financial flows to the least-developed countries, and to find ways for public funding to leverage the private sector to invest in clean energy that reaches the poorest people; inequality is an underlying cause of many global challenges and a major risk factor for progress towards energy-related sustainable development goals.
- Illicit financial flows deprive some key regions of critical resources that are necessary to finance clean energy transitions and resilient recovery from the COVID-19 pandemic. For example, Africa lost at least USD 50 billion to illicit financial flows in 2015. This 30% of the USD 170 billion per year need to close Africa's infrastructure gap.
- Overall, it is essential that the move to sustainable energy leaves no one behind – the focus must be on delivering universal access to clean cooking and electricity while accelerating the global energy transition. and accommodating the transfer of employment opportunities from one sector to another to avoid creating a divide between those who do and those who benefit and those who do not benefit from modern energy.
- Against this backdrop, the issue is not only to scale up investments, but also to ensure that they are also reaching the poor(est) and most vulnerable and to address the social consequences and distributive effects of the transformation of energy systems to ensure a just energy transition.

Challenges with financing energy access

- Utilities in many countries with a large access deficit are challenged by poor planning, weak financial positions and struggle to undertake new investments and at the same time service existing debt obligations and meet operating costs. Alongside increasing revenue losses due to COVID-19 shock, this hinders a rapid expansion of reliable grid-connected electricity access.
- The pandemic has also increased the importance of affordability as a barrier to access clean energy. Connection to the grid, mini-grids, off-grid solutions, or investment in cook stoves have a high upfront cost for the third of the global population without access.
- Connecting households distant from the grid may incur costs that are not easily recuperated via the additional revenue streams such new customers bring and other solutions may be necessary.
- There has been considerable innovation in business models for off-grid and mini grid renewable systems, via models such as pay-as-you go and third-party ownership for solar home systems, which offer energy-as-a-service. However, whilst already operating in a high-risk market, some nascent companies promoting rural electrification by operating mini grids in rural locations and providing off-grid solar services are facing additional financial difficulty or even insolvency because of the pandemic.
- Even for connected consumers, reliable energy is not a certainty. In many parts of Africa, transmission and distribution investments have not kept up with investments in generation, resulting in high losses on the most fragile networks (in some cases as high as 40%) and unreliable and poor quality of services. Data and analytics may serve to better inform distribution investment decisions by optimising cost/benefits and reducing uncertainty. This reduces credit risk, positively benefiting price and availability of funds.
- Financing challenges for access encompass end-user credit risk, the ability and method of payment for electricity, a scarcity of domestic investor capital for mini grid projects, as well as broader issues such as currency risk. Significant political and public and private financial commitments are necessary to overcome these barriers and accelerate deployment.
- The uptake of clean cooking solutions continues to face many barriers, especially in areas where firewood does not have a direct financial cost. This hinders investment in cook stoves and the development of viable business models for clean cooking services, although pay-as-you-go schemes can help by allowing customers to buy smaller amounts of fuel so that they can adapt payments to changes in income.

Challenges with the pipeline of clean energy project

- Low-carbon energy investments tend to have high upfront capital intensity, making financing costs an important affordability component. Providers of debt and equity capital price project risks into their cost of financing, including market and regulatory uncertainty, following a risk/reward dynamic. Higher risks thus increase costs but may also curb investment appetite resulting in lower capital availability.
- In some geographies, energy investment opportunities remain scarce compared with investment needs, especially as a result of high perceived risks, resulting in very high premiums on the cost of capital. To meet the sustainable energy goals and targets, there is a need to rapidly increase the number of projects available through an improved enabling environment for clean energy investments and more projects being brought to market. A market that is considered small has lower investor interest. A market that is perceived as difficult is also one that has low investor confidence.
- In many cases, this requires addressing some crosscutting barriers (e.g. permitting, land acquisition), as well as policy frameworks that can increase confidence in clear and predictable remuneration for the investment concerned.

- Lengthier decision-making and permitting processes throughout the development cycle increase project costs. Red tape, lacking coordination, and slow decision-making processes are harmful not only the speed of project development but also their development and financing costs.
- Institutional and human capacity can also be a major constraint: many governments, particularly in developing economies, have limited experience and capacity to develop regulations, manage, structure and negotiate the contracts that underpin clean energy investments. The costs associated with professional and legal services can be substantial.
- Lessons learned from the large scale roll out of renewables in some geographies provide many insights to identify best practices to accelerate energy investment. Renewable auctions have been effective in attracting competition in many countries and the auction design can influence financing conditions. Initiatives like the “scaling solar” initiative can help to deploy renewables rapidly and cost-efficiently by using a standardised approach.
- In some countries, weak grid infrastructure limits project size and pushes up costs and risks. Renewable generation projects need to go hand-in-hand with the necessary investments in grids, as well as other sources of flexibility.
- As countries reach high share of renewables in electricity generation, they will have to make a trade-off between maintaining financing costs low and to take on higher market risk to incentivise projects with higher value for the power systems.
- Barriers vary across different types of investment. Progress with energy efficiency investments is often slowed by relatively high upfront investment costs, the diffuse nature of these types of investment, split incentives and perceived uncertainty of future benefits in terms of energy savings and associated cash flows.
- In many geographies, pricing signals do not encourage sustainable investments. Phasing out subsidies to fossil fuels improves clean energy investment incentives across economies; these subsidies also encourage wasteful consumption of fuels.
- Pricing in externalities is likewise very important: new carbon pricing initiatives are coming online, such as the new Emissions Trading Scheme in China or the carbon tax in South Africa, increasing the cost of investing in emissions-intensive activities. Revenues from carbon pricing can be used to fund recovery and adjustment costs elsewhere in the system.
- The risk/reward dynamic means that counterparty credit risk matters and affects affordability. While take-or-pay fixed price contracts have been successful in attracting low cost financing in renewable auctions in many countries, the financial viability of offtakers is a critical aspect in a large part of the world and a main bottleneck to increased investments (and higher costs). The counterparty risk depends on the ability of governments to implement sound energy regulation and in some cases implement energy tariff reforms. In Sub-Saharan Africa alone, the tariff gap has been estimated as equivalent to USD 21 billion (of which USD 11 billion in South Africa alone), or 1.5% of the region’s GDP. Improving billing and collection efficiency and reducing technical and commercial losses are key to reforming this sector. Residual risk may still necessitate lenders to seek sovereign guarantees, increasing contingent liabilities to the state.

Challenges with the type of available financing

- There is a need to improve and increase the availability of capital to fill clean energy and infrastructure gaps. This should be based on improved complementarity and coordination between public and private finance, and a shared vision among different financial institutions, including international financial institutions, local banks and institutional investors.
- While the rise of ESG linked financial instruments such as green bonds is creating more liquidity seeking clean energy investments in an already liquid environment, oftentimes the risk appetite of market participants is more limited

- The cost and availability of finance is closely related to the enabling environment for new clean energy projects. Attracting private financing depends on the energy policy frameworks including infrastructure planning, fiscal incentives and market and regulatory issues.
- Early stage project development spending is needed to develop investment opportunities and ensure a steady pipeline of projects coming to market. Resources may be scarce in the public sector and the private sector not always properly incentivized, resulting in a shortage of grants, early-stage capital and technical assistance.
- Development Finance Institutions and International Financial Institutions play an important role addressing market failures and addressing investment gaps but their financial firepower is inherently limited by their balance sheets. Public banks need to step up their role as catalysts for investment, for example through blended finance (mix of grants and loans and concessional blended finance) supporting project additionality and cross-border investment in riskier markets and sectors.
- International investors frequently maintain strict environmental and social standards implying that investment opportunities will have to meet these standards in order to be realized; there is no room for short cuts.
- Institutional capital brings the promise of immense scale and can be mobilised under the right circumstances. Particularly the secondary market for clean energy assets may be suitable for sizeable participation by this type of market participants, such as for example the purchase of a portfolio of performing operational assets. In turn, this frees up capital in the primary market (project developers, banks) towards new operations.
- Financial innovation can also take advantage of the greening of the financial sector and to serve areas of the clean energy transition, including energy efficiency and harder-to-abate sectors.
- For smaller-scale investments, e.g. improvements to the energy efficiency of buildings, governments and banks may seek to develop standardised products and encourage aggregation in order to reduce transaction costs and attract large-scale investors.
- Multilateral guarantee mechanisms could contribute to lower the counterparty for investors, not only local political risk, but also the credit risk associated with offtake agreements. Existing risk guarantee mechanism can be expensive or even unavailable in the markets that need it most.. Competitive instruments are important to keep the overall cost of capital low enough to ensure the financial sustainability of the project. Cross-border renewable financing mechanisms are emerging in developed countries and have the potential to play an important role by spurring clean energy investment elsewhere.

Recommendations / Plan of Action

Overview of recommendations and time horizon for implementation

Previous number	Recommendation	Time horizon for implementation
Direct and immediate measures to accelerate clean energy projects		
	[How to] Align Covid-19 recovery plans to accelerate the energy transition while increasing support to countries that have limited financial resources to achieve SDG7	0 – 1 years
	[How to] Provide financing and technical assistance to accelerate project preparation and development	0 – 2 years

	[How to] Set effective incentives for clean energy projects, such as competitive procurement mechanisms, and equipments to meet targets	1 - 4 years
Targeted support to unlock energy transition and leave no one behind		
	[How to] Deploy financial instruments that can help to manage energy project risks and leverage available funding thanks to portfolio guarantee for lenders	0 – 2 years
	[How to] Support investments in riskier technologies (e.g. CCUS, hydrogen) and enabling infrastructure	2 – 5 years
	[How to] Provide financial resources and capacity building to support energy access and an inclusive, just transition	0 – 5 years
Sound energy policy and regulatory frameworks to attract private investment		
	[How to] Get the prices right for energy and emissions	0 – 5 years
	[How to] Design broad and ambitious clean energy strategies and carry out system planning with high shares of renewables	1 – 5 years
	[How to] Set standards, obligations and address regulatory barriers to project development	1 – 3 years
	[How to] Enhance transparency, predictability and governance within energy systems	1 – 5 years
Vibrant ecosystem of financial providers, entrepreneurs and companies that can support clean energy transitions		
	[How to] Guide growing appetite for sustainable finance from the capital markets	0 – 5 years
	[How to] Develop a network of local intermediaries to finance smaller, decentralized projects and SMEs, as well as facilitate aggregation	1 – 5 years
	[How to] Support strategic shifts and financial performance enhancements programmes for state-owned enterprises, including electric utilities and national oil companies	2 – 5 years
	Refocusing DFIs on climate and development mandates	

Details

Direct and immediate measures to accelerate clean energy projects

1. **[How to] Align covid-19 recovery plans to accelerate the energy transition while increasing support to countries that have limited financial resources to achieve SDG7**
 - a. Overview of green covid-19 recovery programmes

- b. Do recovery plans exclude investment not Paris aligned/not fit for net zero ?
- c. Development money included in the recovery programmes
- d. Energy investment needs for 2025 milestone and SDG7 target compared to the sums mobilized for the recovery?

WG members are invited to identify pragmatic recommendations/plan of action to facilitate Paris alignment, Percentage of recovery plans to climate action (e.g. 50%, percentage of recovery plans to support energy transition) and support to developing economies (e.g. representing x% of the recovery funds) Link company recue plans with increased climate ambitions

2. [How to] Provide financing and technical assistance to accelerate project preparation and development

- a. Increase risk capital for project development in the market (developers, utilities) towards early-stage project development
- b. Focus DFIs and MDB interventions on developing countries with less experience
- c. Expand Project Development Assistance and Technical Assistance to support the preparation of bankable projects
- d. Mobilise domestic resources and local capital

WG members are invited to discuss solutions to accelerate the implementation of projects already in the pipeline including (i) addressing barriers to expand upstream projects, (ii) best practices to increase the projects brought to market for financing, (iii) increase of resources (doubling ?...) needed to develop the projects to meet 2025 milestones and 2030 targets.

Possible illustrations: African Legal Support Facility (ALSF) run by the African Development Bank ALSF (aflsf.org)
tbc

3. [How to] Set effective incentives for new clean energy projects, such as competitive procurement mechanisms, and equipment to meet milestones and SDG7 targets in a timely fashion

- a. Roll-out effective electrification programs at national level (incl. innovative business models)
- b. Bankability of investment in electricity networks
- c. Renewable auctions: using best practices in terms of risk allocation
- d. Scaling Solar, taking into account lessons learned
- e. Energy efficiency standards and incentives to support building renovation

WG members are invited to present best practices in terms of public instrument to accelerate investment needed for SDG7: cookstoves, electrification programmes, renewable auctions, in particular for renewables (allocation of risks such as licencing; land acquisition; permitting connection to the grid)... energy efficiency standards, ESCOs or dedicated banks.

Possible illustrations: best-practices as already demonstrated in various markets, including in emerging markets such as RSA, Zambia, Senegal, Uzbekistan.
South African renewable energy IPP procurement lessons learned
tbc

Targeted support to unlock energy transition and leave no one behind

4. [How to] Deploy financial instruments that can help to manage energy project risks and leverage funding thanks to portfolio guarantees for lenders

- a. Scale up innovative financial instruments to mitigate counterparty risks of energy projects,
- b. Provide support in the form of multilateral portfolio guarantee (first loss piece) to DFIs and MFIs to increase lending to more risky energy projects (e.g. investEU)
For instance: consider the possibility of using existing Funds (such as the GCF) to provide first loss piece guarantees to energy investment by DFIs and MDBs
- c. Consider impact of regulation on commercial bank's readiness to lend

WG members are invited to formulate recommendations regarding the different tools and instruments available to de-risk investment.

Illustrations: [Junker Plan and InvestEU](#) [Climate Investment Funds Hedging emerging and frontier currencies](#) • [TCX Fund](#)

MIGA's breach of contract, non-honoring of financial obligations, short term liquidity support, political risk insurance
tbc

5. [How to] Support investments in riskier technologies at early stage of deployment (e.g. CCUS, hydrogen) and enabling infrastructure

- a. Hydrogen strategies, CCS demonstration projects and other emerging technologies
- b. Direct investment or market creation thanks to offtake agreement

Illustrations: Offshore wind development in Europe

6. [How to] Provide financial resources and capacity building to support energy access and an inclusive, just energy transition

- a. Close the funding gap for energy access
- b. Philanthropy on mini-grids (e.g. RF and Shell)
- c. Addressing implications of energy transition policies on other SDGs (including poverty eradication (SDG 1) gender equity and female empowerment (SDG 5), decent work opportunities and sustainable economic growth (SDG 8 and SDG 11), innovation (SDG 9)
- d. Impact of energy investment on the principle of "leaving no one behind" (SDG 10)
- e. Examples of measures and funds deployed in different regions

WG members are invited to provide illustrations and examples of policies to increase energy access and address the broader social consequences of SDG7 and net-zero by 2050, in particular in terms of social impact in some regions and associated funding needs.

Sound energy policy and regulatory frameworks to attract private investment

7. [How to] Get the prices right for energy and emissions

- a. Put a price on carbon by establishing mechanisms (e.g Tax or Cap & Trade).
- b. Develop reforms to end fossil fuel subsidies

Address the social consequences with compensation measures and support investment needed to reduce energy consumption

8. [How to] Design broad and ambitious clean energy strategies and system planning with high shares of renewables

- a. Set out clear targets plans
- b. Present auction programmes and a pipeline of projects for the upcoming years demonstrating to investors that there is a market
- c. Prepare sector planning demonstrating long-term visibility to the market

WG members are invited to formulate a plan of action for governments to reduce and eliminate fossil fuel subsidies and introduce carbon pricing or strengthen existing ones.

9. [How to] Set standards, obligations and address regulatory barriers to project development

- a. Set enforceable EE regulations, streamline policies and provide fiscal incentives
- b. Invest in training for sector specialists to ensure sufficient human resources are available
- c. Streamline regulatory framework & permitting process to ease doing business
- d. Prepare the regulatory frameworks for decentralized generation and storage (e.g. allowing new business models to emerge)

10. [How to] Enhance transparency, predictability and governance within energy systems

- a. Stable, transparent and independent regulation
- b. Strategies to prevent retroactive changes / breach of contract
- c. Complaint resolution mechanisms, contract sanctity and rule of law
- d. Long-term market framework to maximize the value of renewable

WG members are invited to identify key pragmatic and concrete measures that can improve the governance and market framework of energy sector in the timeframe of the 2030 SDG targets.

Vibrant ecosystem of financial providers, entrepreneurs and companies to support clean energy transitions

11. [How to] Guide growing appetite for sustainable finance from the capital markets (Deepen the greening of the financial system)

- a. Increase measures and regulations to reward ambitious climate policies: financial disclosure, bond purchase programs...
- b. Create more liquid and transparent market for green bonds
- c. Enhance risk management of climate risk within the financial system

WG members are invited to suggest recommendations on options and solutions to take advantage of the ongoing greening of the financial system and identify measures that could increasingly reward clean energy policies.

Possible illustrations: [EU taxonomy for sustainable activities | European Commission \(europa.eu\)](#)

tbc

12. [How to] Develop a network of local intermediaries to finance smaller, decentralized projects and SMEs, as well as facilitate aggregation

- a. Mobilise domestic resources and local currently financing (role of local banks)
- b. Energy distributors
- c. Fintech
- d. Investment funds?
- e. Aggregation platforms

WG members are invited to provide examples of successful intermediaries, (including energy distributors for energy efficiency programmes, mobile payment solutions, off-grid solutions; cooking stoves, local banks or other dedicated financing intermediaries....

Possible illustrations: Engie Africa, BBOXX,...

tbc

13. [How to] Support strategic shifts and conditions for financial performance enhancements programme for state-owned enterprises, including electric utilities and national oil companies

- a. Strengthen financially utilities (tariff reforms, operational efficiency, loss reduction, collection rates, etc) to enable investment in energy access and energy transition
- b. Improve the bankability of distribution projects
- c. Link rescue and recovery programmes of companies to their decarbonisation plans
- d. Capacity building (to reduction of fossil fuel path dependence and facilitate variable renewable integration)
- e. Aggregation platforms

WG members are invited to identify examples of successful strategies for the recovery of energy utilities associate with decarbonisation plans in developing countries that could be replicated in other countries, with the objective to have more robust counterparts for PPAs or loans.

14. [How to] Refocusing DFIs on climate and development mandates

- a. Mandate of DFIs
- b. Paris alignment policies

Impact

This section will focus on the impact of meeting the goals, including opportunities and co-benefits, and the impact on investment and financing costs.