



Global Challenge Program

Energy Transition Efficiency and Access

Approach Paper

[left intentionally blank]

TABLE OF CONTENTS

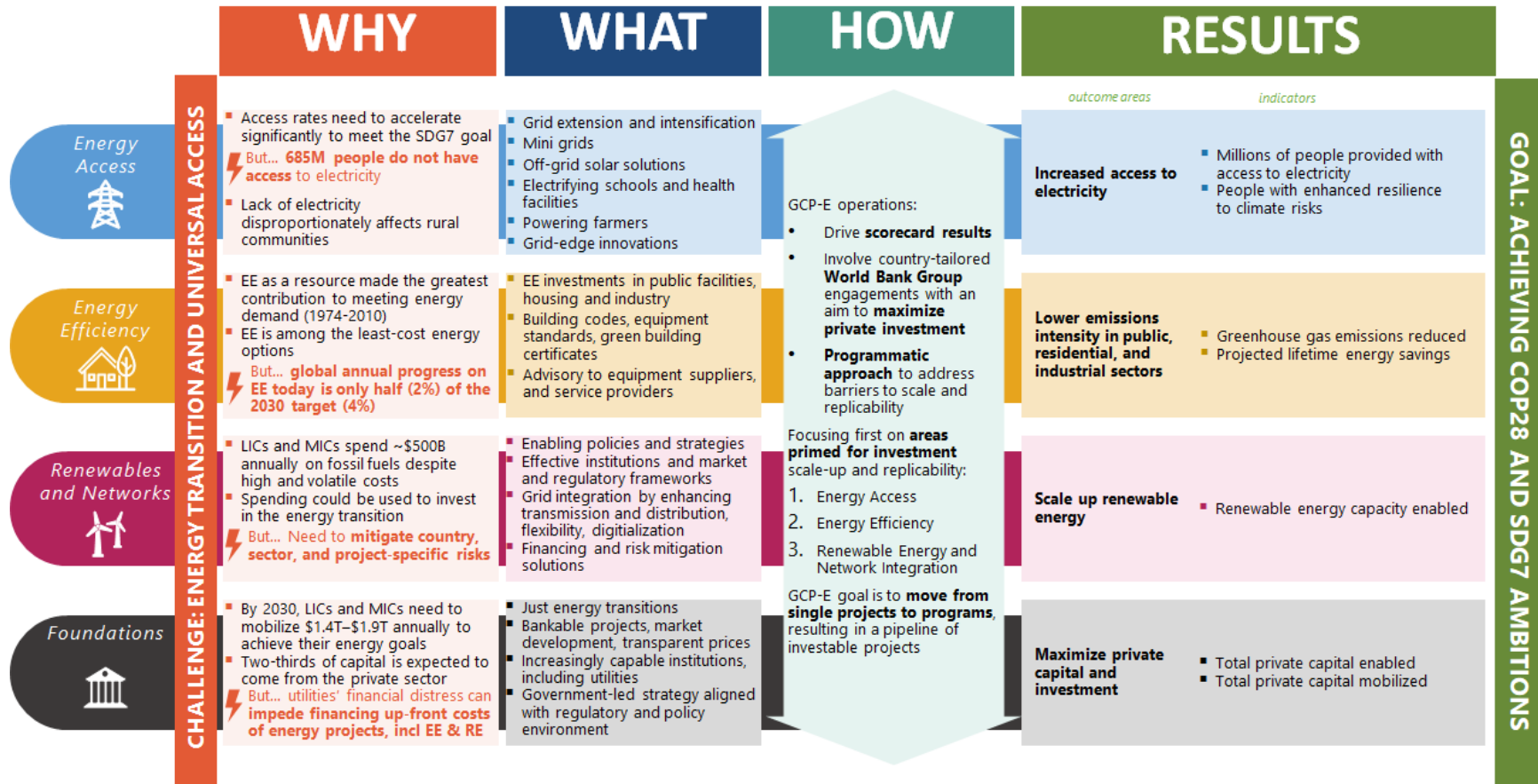
1	The global energy challenge.....	1
2	A global program commensurate with global ambition	2
2.1	Results areas	2
2.2	Cross-cutting priorities	3
2.3	Scaling up investment and results	4
2.4	World Bank Group approach for more than the sum of its parts.....	5
3	An approach with the capacity to scale	6
3.1	Expanding programmatic engagements.....	7
3.2	Knowledge partnerships to boost client capacity and deliver solutions.....	10
3.3	Targeted concessional finance to address global public goods and affordability	12
	<i>Rationale for concessionality</i>	12
	<i>Sources of concessionality</i>	13
4	Results and Program Management	15
4.1	Measuring Results, Learning, and Knowledge	15
4.2	Operationalization	16
4.3	Indicative Pipeline and Next Steps.....	17
4.4	Reporting	17
	ANNEX 1: World Bank Group in Energy Access.....	18
	ANNEX 2: World Bank Group in Energy Efficiency	19
	ANNEX 3: World Bank Group in Renewable Energy and Network Integration.....	20
	ANNEX 4: World Bank Group in Utility Performance Improvement	21

LIST OF ACRONYMS

AC	Air Conditioning
AFE	Eastern and Southern Africa
AFR	Africa
ARISE	Accelerating Renewable Energy Integration and Sustainable Energy
ASCENT	Accelerating Sustainable and Clean Energy Access Transformation
ASEAN	Association of Southeast Asian Nations
ASPIRE	Accelerating Sustainable Private Investment in Renewable Energy
C&I	Commercial and Industrial
CAREC	Central Asia Regional Economic Cooperation
CASA-1000	Central Asia South Asia Electricity Transmission and Trade Project
CCDRs	Country Climate and Development Reports
CCG	Climate Change Group
CDI	Development Impact Department
CIF	Climate Investment Fund
CIF-TAF	Climate Investment Fund's Technical Assistance Facility
COMESA	Common Market for Eastern and Southern Africa
COP	Conference of Parties
CPSDs	Country Private Sector Diagnostics
CSF	Climate Support Facility
CTF	Clean Technology Fund
DARES	Distributed Access through Renewable Energy Scale Up
DEC	Development Economics
DPF	Development Policy Financing
E3	Scaling up Energy Efficiency in Europe and Central Asia
ECA	Europe and Central Asia
ECARES	Europe and Central Asia Renewable Energy Scale-up
ECOWAS	Economic Community of West African States
EDGE	Excellence in Design for Greater Efficiencies
ESCO	Energy Service Company
ESF	Environmental and Social Framework
ESG	Environmental, Social and Governance
ESMAP	Energy Sector Management Assistance Program
ETA	Energy Transition Accelerator
FCV	Fragility, Conflict, and Violence
FIF	Financial Intermediary Facilities
GCF	Green Climate Fund
GCP	Global Challenge Program
GCP-E	Global Challenge Program on Energy Access and Transition
GEF	Global Environmental Facility
GHG	Greenhouse Gas
GWh	Gigawatt hours
IBRD	International Bank for Reconstruction and Development
ICRF	Integrated Climate Results Framework
IDA	International Development Association
IDA-PSW	International Development Association-Private Sector Window
IFC	International Financial Corporation
IPF	Investment Project Financing
KGGTF	Korea Green Growth Trust Funds

LICs	Low Income Countries
M&V	Measurement and Verification
MD	Managing Director
MDB	Multilateral Development Bank
MICs	Middle Income Countries
MIGA	Multilateral Investment Guarantee Agency
MIS	Management Information Systems
MPA	Multiphase Programmatic Approach
MWh	Megawatt Hours
O&M	Operations and Maintenance
OGS	Off-Grid Solutions
PCM	Private Capital Mobilization
PforR	Program-for-Results
PIU	Project Implementation Unit
PPA	Power Purchas Agreement
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public Private Partnerships
PrDO	Program Development Objective
RBCF	Results-Based Climate Finance
RCREE	Regional Center for Renewable Energy and Energy Efficiency
RE	Renewable Energy
RISE	Regulatory Indicators for Sustainable Energy
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SAR	South Asia
SCADA	Supervisory Control and Data Acquisition
SCALE	Scaling Climate Action by Lowering Emissions
SDGs	Sustainable Development Goals
SIDS	Small Island Developing States
SOE	State-Owned Enterprise
SPC	Pacific Community (formerly – South Pacific Commission)
SPJ	Social Protection and Jobs
SRMI	Sustainable Renewable Risk Mitigation Initiative
SSA	Sub-Saharan Africa
SSI	Social Sustainability and Inclusive
TA	Technical Assistance
TDB	Trade and Development Bank
TOR	Terms of Reference
UN	United Nations
USD	United States Dollar
WBG	World Bank Group

OVERVIEW of GCP-E



CHALLENGE: ENERGY TRANSITION AND UNIVERSAL ACCESS

GOAL: ACHIEVING COP28 AND SDG7 AMBITIONS

1 The global energy challenge

1. **The COP 28 pledge to triple global renewable power capacity and double the annual rate of energy efficiency improvement by 2030 demonstrates governments' commitment to energy transition.**¹

Transforming the world energy system will create new jobs, enhance lives and livelihoods, empower people, and foster resilient communities. A just energy transition underpins achievement of the UN Sustainable Development Goals (SDGs), particularly SDG 7 - universal access to affordable, reliable, sustainable, and modern energy for the 685 million people currently without.² Keeping global temperature rise to 1.5°C in line with the Paris Agreement, while achieving universal access to electricity and ensuring energy security and affordability, requires accelerated action and ambitious policy implementation this decade. Low- and middle-income countries (LICs and MICs) need increased support and investment from multiple sources including the private sector, multilateral development banks, and philanthropy. Heightened ambition and collaboration should be directed to develop accessible financing mechanisms to reduce the cost of capital in LICs and MICs, to enhance technical support and capacity building, to improve energy demand management, and to ensure that policies are conducive to just and resilient energy transitions.

2. **To achieve universal access to electricity and the ambitions of COP28, public and private investment in MICs and LICs needs to increase significantly, while maintaining affordability and fiscal sustainability.** Today, LICs and MICs spend nearly \$500 billion annually on fossil fuels despite high and volatile costs. This recurrent spending on fuels should instead service debt and equity on financed investments in energy transition and access. By 2030, LICs and MICs need to mobilize \$1.4 trillion–\$1.9 trillion annually to achieve their energy goals. This is a seven-fold increase from the current annual public and private investment of \$260 billion.³ Two-thirds of the capital needed is expected to come from the private sector, which will require significant effort in sector reform and preparation of bankable investment opportunities in many countries. There is no shortage of private capital, but attracting private investment in energy access and energy transition for LICs and MICs is often constrained by the slow pace of utility and market reform that maintains a vicious cycle of: (i) limited fiscal space to make catalytic investments; (ii) limited consumer affordability; and (iii) limited access to affordable capital.⁴ LICs and MICs need to address project bankability by mitigating country, sector, and project-specific risks using public and concessional resources to maximize private capital with innovative financial and de-risking solutions and to achieve the greatest impact in terms of social returns.

3. **Growing a pipeline of bankable projects depends on government leadership, a supportive regulatory and policy environment, increasingly capable institutions – especially financially and operationally strong utilities – and procurement mechanisms that provide transparent price discovery.** Engagement with governments to build creditworthy utilities and a bankable pipeline of projects is essential. Scaling-up private investment requires robust public sector interventions and strong institutional capacity to assess and mitigate the environmental, social, and governance impacts of energy transition. A well-coordinated sector reform complemented with measures to improve utility financial and operational performance should boost creditworthiness and bankability of investments. Financial sustainability of energy utilities, whether publicly or privately owned and operated, is the foundation for

¹ For the full text of the UNFCCC first global stock take. https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

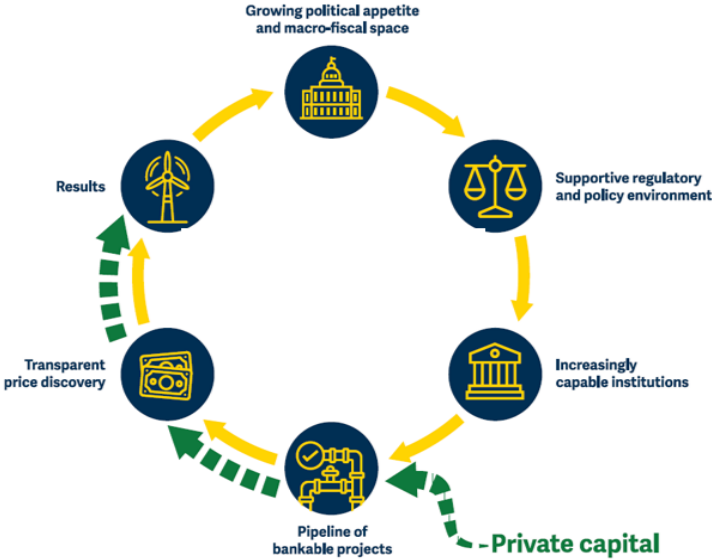
² IEA, IRENA, UNSD, World Bank, WHO. 2024. Tracking SDG 7: The Energy Progress Report. World Bank.

³ IFC/IEA (2023). Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies. These calculations exclude China. Separate estimates of energy transition investment needs in China exceed \$500 billion/year.

⁴ World Bank (2023). "Scaling Up to Phase Down: Financing Energy Transitions in the Power Sector". Washington, DC.

attracting commercial financing and private investments. The virtuous cycle will achieve greater scale over time as programs and early investments demonstrate results that encourage greater ambition (Figure 1). This cycle of scalable investment programs is not sequential; private and public capital may be mobilized through appropriate risk allocation and risk mitigation instruments *while* progress is made simultaneously to improve the long-term enabling environment for investment.

Figure 1: Engagement throughout the virtuous cycle drives greater private investment



Source: World Bank (2023) “Scaling Up to Phase Down.”

2 A global program commensurate with global ambition
 2.1 Results areas

4. The Global Challenge Program for Energy Access and Transition (GCP-E) seeks to respond to the urgency and enormity of the global challenge, not with a change in focus, but with an evolution of the World Bank Group’s engagement model to double down on impacts in line with the Bank’s Evolution Roadmap. While energy transitions vary by country circumstances, the WBG’s Country Climate and Development Reports (CCDRs) revealed a ubiquitous need for progress in three areas⁵: energy access, energy efficiency, and renewable energy and network integration. Four foundations - just transition, market development, institutional capacity building, and government policy and strategy - underpin the results areas and ensure sustainable scaling up of results. All results areas will support climate adaptation recognizing that resilient people and infrastructure are foundational to development outcomes. The GCP-E will include operations that meet the following criteria: (i) drive select scorecard results, (ii) involve country-tailored, World Bank Group (WBG)⁶ engagements with an aim to maximize private investment, and (iii) address barriers to scale and replicability programmatically. GCP-E operations will be embedded in the existing country engagement model driven by country demand. *Annexes illustrate how results areas will be operationalized.*

⁵ World Bank Group. 2022. Climate and Development: An Agenda for Action - Emerging Insights from World Bank Group 2021-22 Country Climate and Development Reports.

⁶ World Bank Group (WBG) refers to engagements that leverage the comparative advantages of IDA, IBRD, IFC and MIGA.

5. **The first five-years of the GCP-E will focus on the areas primed for investment scale-up and operational replication (Figure 2).** Broader energy system decarbonization, such as hydrogen, critical minerals production and recycling, coal repurposing and decommissioning, carbon capture and sequestration and industrial decarbonization, are emerging areas of WBG business and may be included in the GCP-E scope at a later stage. Transformative projects supporting countries’ development and climate goals, such as hydropower development and cleaning cooking would be included in the GCP-E if they meet the criteria specified above; areas outside of the GCP-E will remain an integral part of WBG’s engagement with clients.

Figure 2. GCP-E Results Areas

Corporate Scorecard Indicators	<ul style="list-style-type: none"> • Millions of ppl provided with access to electricity • GW of renewable energy capacity enabled • Ppl with enhanced resilience to climate risks • Total private capital enabled • Total private capital mobilized • Greenhouse gas emissions reduced 		
Results Focus Areas	<p style="text-align: center;">Energy Access</p> <ul style="list-style-type: none"> ▪ Off-grid solutions ▪ Distributed mini-grids ▪ Grid extensions for last mile connections 	<p style="text-align: center;">Energy Efficiency</p> <ul style="list-style-type: none"> ▪ Building renovations, appliances, and sustainable heating/cooling solutions ▪ Plant modernization and process improvements 	<p style="text-align: center;">Renewable Energy & Network Integration</p> <ul style="list-style-type: none"> ▪ Renewables and flexibility for integration (e.g. storage, regional interconnectivity) ▪ Strengthening transmission and distribution
Foundations	<p>Just energy transitions for energy workforce, communities, poor and vulnerable</p> <p>Bankable projects, market development, transparent price discovery</p> <p>Increasingly capable institutions including financially and operationally strong utilities</p> <p>Government-led strategy aligned with regulatory and policy environment</p>		

Source: WBG

2.2 Cross-cutting priorities

Gender and energy

6. **Addressing gender equality is core to energy access and a successful energy transition.** In many countries, women and girls are primarily responsible for managing household energy needs, such as cooking, heating, and lighting. However, they often lack access to clean and reliable sources of energy, which can have profound impacts on their health, safety, and economic opportunities. Without modern energy services, women may spend more time on basic tasks and have less time for education or income-generating activities. Advancing gender equality is also critical for energy transition as its success hinges on a greater and more diverse talent pool to drive the transformation. Analysis shows that women are better represented in clean energy jobs compared to traditional extractives jobs. Yet, despite accounting for 39 percent of the global labor force, women only make up 16 percent of the traditional energy sector, and for management levels, the share further drops. The GCP-E will advance gender equality in energy access and transition through the lending and learning agendas leveraging existing training and toolkits on mainstreaming gender equality in energy, such as ESMAP’s ‘Women’s Employment in Energy Sector Utilities Toolkit, for designing and implementing activities on increasing women’s employment in the power sector.

Countries affected by fragility, conflict, and violence and small island developing states

7. The GCP-E will consider the unique challenges of countries affected by fragility, conflict, and violence (FCV) affected countries and small island developing states (SIDS) which suffer from compounded challenges. Support to FCV countries has consistently embraced a flexible and adaptive approach that combines humanitarian and development efforts – addressing the most immediate needs of providing access to affordable energy in marginalized communities while laying the foundations for energy transition through policy support, technical assistance, and institutional capacity building. Based on experience in FCV countries, a multi-prolonged approach guided by the following principles is used as a basis for interventions: investing in fundamental building blocks; close coordination with the local communities, NGOs, and other development agencies; balanced effort between parallel efforts addressing both the long-term sustainable development and the immediate humanitarian needs; and helping FCV countries navigate through the uncertainties toward a more resilient energy sector that attracts private sector investment. Successful examples of supporting SIDS, including in EAP and SAR, will be integrated into the design of programs. For instance, Accelerating Sustainable Private Investments in Renewable Energy (ASPIRE) and Accelerating Renewable Energy Integration and Sustainable Energy (ARISE) projects in Maldives achieved a leverage ratio of 1:12 through a systematic WBG approach which can be replicated in other SIDS.⁷

8. In FCV context, as elsewhere, IFC and IBRD/IDA coordinate with government through jointly developed sector reform roadmaps and identified investments to scale up access and leverage engagements with the private sector. For example, WBG teams are collaborating on a significant, private sector-led access program in Burundi – an FCV country with 12 percent electricity access, which is envisioned as a second phase project under the regional energy access MPA for Eastern Africa (ASCENT), demonstrating the adaptability of the MPA framework to a GCP-E approach. Similarly, efforts through programmatic approaches like the Distributed Access through Renewable Energy Scale-Up Platform (DARES), leverage IBRD/IDA, MIGA and IFC to promote private investment in distributed renewable energy systems for accelerated electrification in Sub-Saharan Africa. Expanding energy access through off grid solar technologies has proven effective in achieving both the humanitarian and sustainable development needs in the rural areas of FCVs.

2.3 Scaling up investment and results

9. The GCP-E approach aims to leverage more private investment than in the past, to achieve progress toward global targets within five years. It aims to provide more people with energy access, increase lifetime energy savings, enable more renewable energy capacity, and reduce CO2 emissions. Early WBG interventions on energy access will contribute to the WBG’s corporate target to provide access to electricity for 250 million people in Africa by 2030 through distributed renewable energy systems as well as distribution grids⁸. Achieving this target is expected to unlock \$9 billion private investment opportunities in distributed renewable energy. Additional targets on GCP-E’s focus areas and foundations will be defined during the initial years of implementation based on client demand and available resources. Increasing the available resources will be necessary to drive results without detracting from other development priorities.

⁷ World Bank (2023). Why the Maldives 5 MW solar project is a game changer.

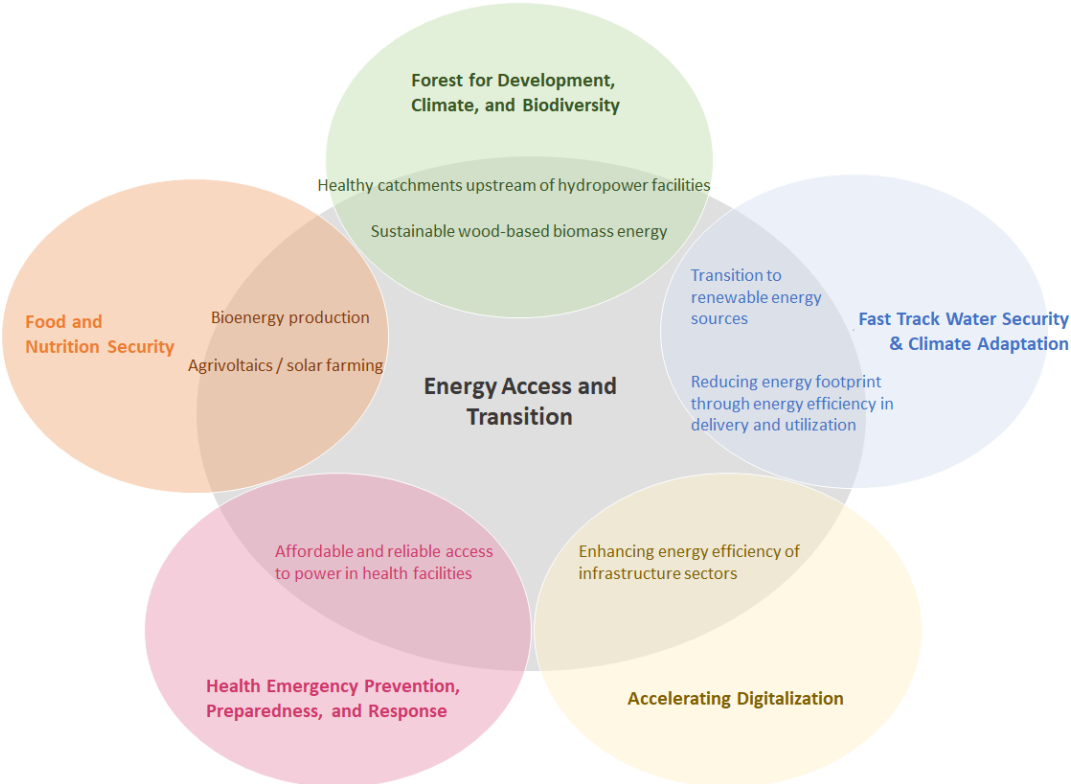
<https://blogs.worldbank.org/endpovertyinsouthasia/why-maldives-5-mw-solar-project-game-changer>

⁸ World Bank Group (2024). New Partnership Aims to Connect 300 Million to Electricity by 2030.

<https://www.worldbank.org/en/news/press-release/2024/04/17/new-partnership-aims-to-connect-300-million-to-electricity-by-2030>

10. Given the importance of energy for sustainable and resilient development, the GCP-E will engage other GCPs to enhance impact (Figure 3). Reliable and affordable energy is a prerequisite to digitalization while emerging digital technologies can allow for a faster uptake of clean energy, e-mobility, and demand management. Energy transition has impacts on forests and watershed management. Keeping the lights on for most critical yet vulnerable part of the social system, including for health facilities, is critical, particularly in FCV countries. Holistic solutions for the energy-water-agriculture nexus, will maximize synergies for clients confronting cross-cutting challenges.

Figure 3. GCP-E’s linkages with other GCPs



Source: WBG

2.4 World Bank Group approach for more than the sum of its parts

11. The GCP-E will require cross-institution commitment to a new set of mechanisms to engage the collective expertise of the World Bank Group. Collaboration will be critical within the respective regional business units; the IBRD/IDA, IFC, and MIGA will work together to increase the ability of country clients to draw on the resources of the private sector to meet their development goals. Staff from all three institutions will be systematically engaged early in the design and implementation of GCP-E engagements regardless of the lead institution. The WBG collaboration would extend from early stages of sector reforms through mobilizing affordable capital to achieve implementation at scale. This could include market shaping and reform, institutional capacity building, preparation of bankable pipeline of investment opportunities, viability gap financing for public private partnerships where needed, transaction advisory support, packaged IFC financing, and a menu of complementary risk mitigation instruments by IBRD/IDA,

IFC and MIGA for private capital mobilization. Upstream work to identify perceived risks can be followed by programs that support governments to address them within a time-bound, milestone-based plan.

12. The GCP-E will use joint WBG client engagements alongside existing instruments to increase volumes of private investment. WBG engagement with private sector clients will intensify. The GCP-E will support governments' engagement with private sector to maximize private sector participation through technological innovation, innovative business models, utility management and operational efficiencies through performance-based contracts, and private investment. The GCP-E will build on successful approaches to scale investment within countries, while piloting new ones, with the expectation that these are replicable across borders. WBG guarantees and insurance will be pursued more prominently, in combination with DPFs, PforRs, and IPFs to enable private financing. The continued expansion and alignment of the World Bank's guarantee program is essential for achieving such mobilization. MIGA political risk insurance instruments are designed to mitigate noncommercial risks such as transfer restriction and inconvertibility, expropriation, breach of contract of the offtaker, as well as war and civil disturbance. In addition, for select countries, MIGA offers its credit enhancement product to governments and state-owned entities. There is also an opportunity to structure tailored risk mitigation instruments in support of off-taker risk in the absence of government guarantees or long-term liquidity facilities.

13. The GCP-E will enable the World Bank Group to modernize our approach to delivery by working with governments to move from single projects to programs, resulting in a pipeline of investable projects. As detailed in the approach to energy transitions described in *Scaling up to Phase Down* and summarized in Figure 1, preparing programs instead of stand-alone projects requires countries to overcome barriers to scale systematically and increasingly attract private capital. Programs included in the GCP-E will be jointly designed with IBRD/IDA, IFC, and MIGA, with the intent to address legal and regulatory challenges to scaling up private investment. Targeted concessional resources are needed to overcome barriers, including to advance reforms, catalyze and leverage private capital, build institutions and enabling environments that mitigate risks, including risks to negatively affected workers, households, and communities. Blended finance structures that optimally use concessional, MDB, and private capital can further mitigate investment risks, address viability gaps, and improve overall affordability.

14. The GCP-E's coordinated WBG approach will allow clients to increase their ambitions and achieve their targets more quickly and efficiently. The movement from projects to programs underpinned by extensive knowledge sharing, will allow countries to replicate successful examples from across the world and scale their home-grown successes. Scaled up use of programmatic operations will streamline development and delivery building on existing technical, environmental and social, and procurement and financing (e.g., TORs for transaction advice, PPAs) documents to help in program preparation and implementation. These materials will be complemented by active preparation and implementation support through project preparation grants, as resources allow, and hands-on experts through knowledge partners. Clients will benefit from a joint WBG approach that will bring more integrated public and private sector solutions that can meet immediate needs for investment and strengthen enabling foundations while building toward a stronger sector over time. A clear delineation of public and private roles, around market segments, technologies, and human capital would allow for clearer divisions of roles and more effective cooperation across the three WBG institutions.

3 An approach with the capacity to scale

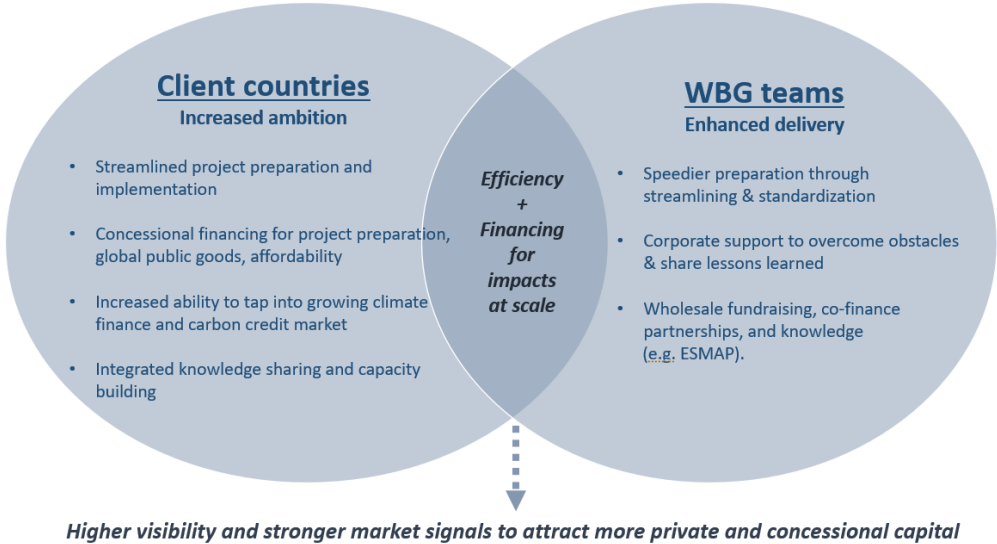
15. Over five years, the GCP-E aims to refine a joint WBG approach to come alongside client countries as they seek a 7-fold increase in investments. The GCP-E is further characterized by (1)

programmatic engagements, (2) knowledge partnerships to boost client capacity, and (3) mobilizing and targeting concessional finance to address global public goods and affordability.

3.1 Expanding programmatic engagements

16. As client countries move from a project-by-project approach to a programmatic one, the World Bank Group will increase support delivered through programmatic approaches and instruments – horizontal and vertical MPAs, PforRs, DPFs, IFC Platforms⁹, risk-sharing platforms, WBG guarantee platforms.¹⁰ The GCP-E will be a program of programs designed considering the need to maximize private investment through up-front, cross-institutional collaboration in the planning and country engagement process. Based on client demand in alignment with the existing country engagement model, a shift from projects to programs could be in different forms: (i) national programs, (ii) regional programs, and/or (iii) global programs.

Figure 4. Value proposition of GCP-E’s programmatic approach



Source: WBG

17. Clients emphasized speed and efficiency, knowledge sharing, and crowding in concessional and climate finance as the biggest incentives for a programmatic approach. Programmatic approaches will aim to deliver economies of scale in procurement, crowd in co-financing, standardize and streamline project preparation, and build client capacity for energy transition through regional knowledge partnerships. These objectives will also benefit WBG teams as shown in Figure 4.

⁹ [IFC Investment Platforms](#) provide an important tool for maximizing development impact, opening markets, and enabling more private sector participation across emerging markets in a cost-efficient manner.

¹⁰ World Bank Group Guarantee Platform Goes Live (2024). <https://www.worldbank.org/en/news/press-release/2024/07/01/world-bank-group-guarantee-platform-goes-live#:~:text=About%20World%20Bank%20Group%20Guarantees&text=The%20platform%20streamlines%20processes%2C%20or%20moves,to%20%2420%20billion%20by%202030>

National programs

18. Using the World Bank’s convening power and building on the wealth of lessons learned from energy access and transition partnerships,¹¹ the Bank will support collaboration between the government, development partners, civil society, and the private sector to jointly support preparation and implementation of government owned and led strategy for energy access and/or transition.

Collaborative engagements based on strong country ownership will outline both long-term public and private investment needs as well as the gaps in the current policy and regulatory frameworks that constrain the scale of impacts including private sector participation. Engagements under the GCP-E will consider how best to use the instruments and products of the World Bank Group to maximize the mobilization of private capital for investments in client countries.

19. Programmatic approaches at the country level could employ a variety of approaches and instruments to achieve results at scale. Development Policy Financing (DPF) focused on policy and regulatory actions may be essential to support countries through the myriad changes needed to create a sustainable enabling environment for private investment. Complementary reforms to environmental regulations and social protection systems may also be pursued. Depending on country context, different sector reforms could accelerate energy access and energy transition, such as electricity pricing, utility performance improvement reforms, and reforms to facilitate public-private partnerships. Programs for Results (PforR) have been an effective instrument to support better operational and financial performance of utilities that are seeking to integrate more renewable energy, while expanding access and improving service delivery. Vertical MPAs aligned with a national strategy could be an effective approach to progressively transition countries to increasing volumes and shares of private investment. Successful WBG engagements (e.g., in Morocco, Rwanda, and Türkiye) have supported government led strategy implementation in a holistic and programmatic manner.

20. Utility performance improvement is a prerequisite to energy access and energy transition that will be pursued under the GCP-E (see Annex 4). More than 40 percent of utilities in sub-Saharan Africa are unable to cover their operating costs and debt service. Few countries with nearly insolvent utilities can shoulder the logistical and financial challenges of an aggressive on-grid access expansion program. Similarly, financing the high upfront capital costs of expanding and modernizing transmission and distribution lines, renewable energy, and storage can be impeded by utilities’ financial distress. Innovative concessional financing solutions for restoring utility creditworthiness may be critical in some countries (e.g., refinancing utility debt on concessional terms or helping cover utilities’ tariff shortfalls in a transition period until they reach financial sustainability). Several programmatic engagements (e.g., in India, Jordan, Nigeria, Cameroon, and Tajikistan) are already underway to improve the financial viability of energy utilities preparing to raise commercial financing. IDA/IBRD loan guarantees could be utilized to raise commercial financing at competitive financing terms for utility capital expenditures or debt reprofiling. Depending on the readiness and credit rating threshold, MIGA can offer its non-honoring of financial obligations guarantee product to commercial lenders that lend to a state-owned enterprise (SOE), which protects such lenders against non-payment, without the need for government guarantee. This can bring in commercial debt resulting in competitive commercial pricing. IFC’s SOE window could be used in countries where utilities operate commercially.

¹¹ e.g., South Africa, Senegal, Indonesia, Viet Nam have Just Energy Transition Programs (JETPs) aiming to build country leadership in defining investment needs and working with partners to identify financing and knowledge resources. Many countries seeking to expand energy access have similarly developed long-term programs that bring together many partners.

Regional programs

21. Recent regional approaches are early applications of the GCP-E approach targeting a specific results area of the GCP-E. DARES leverages a WBG approach for an accelerated uptake of renewable distributed energy systems to expand electricity access. In FY24, a regional approach was pioneered with horizontal MPAs including for energy access in Eastern and Southern Africa (ASCENT), energy efficiency in ECA (E3), and renewable energy in ECA (ECARES). Others are expected in FY25, including a renewable energy program in EAP. These regional approaches allow each country to accelerate energy access or specific areas of energy transition within its unique context, while creating regional synergies, standardization, and knowledge sharing. IFC Platforms also offer precedents of programmatic approaches to tackle global challenges of health and food security – across countries and regions – which can be replicated for energy access and transition with a broadened WBG mandate.

22. Additionally, regional interconnectivity is an essential part of expanding renewable energy and enhancing security of supply. Cross border transmission, markets, and trade are important technical solutions to renewable energy integration that can ameliorate the daily and seasonal variability of renewable resources. Regional integration of power sectors – the physical infrastructure and the commercial aspects – is critical to unlock major renewable energy deployment, as well as to strengthen the resilience of economies against climate-related shocks in the energy sector (e.g., drought, damage from flooding / cyclones) that can lead to prolonged load-shedding or severe price volatility. Building on the Bank's longtime support in enabling regional connectivity in various regions, such as the Central Asia-South Asia Regional Electricity and Trade Project (CASA-1000), an MPA in the Eastern and Southern Africa (RETRADE) is under development to bring together countries and regional bodies to achieve greater technical and market capacity for renewable energy integration.

Global programs

23. Reflecting on the lessons from existing global programmatic approaches, these solutions can be adjusted, expanded, and replicated. Successful global programs include technical assistance, standardized tender processes and project documentation, stapled financing, and credit enhancement. IFC's Scaling Solar and the IBRD/IDA's Sustainable Renewable Risk Mitigation Initiative (SRMI) have demonstrated programmatic solutions for transparent and competitive auctions to scale private sector participation. Experience shows standardized documents may need adjustments to increase adoption by governments, especially when they have preference for directly negotiated agreements. Coupling a broader use of WBG de-risking products to reduce investor risk exposure with systematic inclusion of investment support may help to allay country concerns. New solutions need to be pragmatic, flexible, and strategically use public and concessional funds along with technical assistance and advisory support; IDA-Private Sector Window (IDA-PSW) will be especially critical to support such interventions in lesser developed markets.

24. With IBRD/IDA support at country level, IFC will explore expanding existing programs for accelerated deployment of renewable energy and energy efficiency (e.g., Scaling Solar and Scaling Wind);

EDGE for green buildings). For energy access, IFC can extend initiatives like Scaling Minigrids or the Future Grid Alliance package for utilities¹², with a focus on achieving and deepening utility commercialization.

3.2 Knowledge partnerships to boost client capacity and deliver solutions

25. The GCP-E will benefit from new efforts to systematize and structure knowledge and learning through the new Knowledge Compact for Action. This will take the form of strengthened data, learning, diagnostics, and technical support—and partnerships with other development actors. The GCP-E takes a multi-pronged approach to knowledge to boost client capacity and amplify GCP-E impacts by leveraging the World Bank’s leading role as a knowledge partner, broker, and curator. Partnerships with other development finance institutions, private foundations, civil society, and research institutions will be strengthened to offer clients with more coordinated support through the GCP-E (Figure 5). Exchanges with leading private companies can open doors to innovation and valuable business insights. Knowledge products, with an emphasis on data, will improve the quality of client engagements.

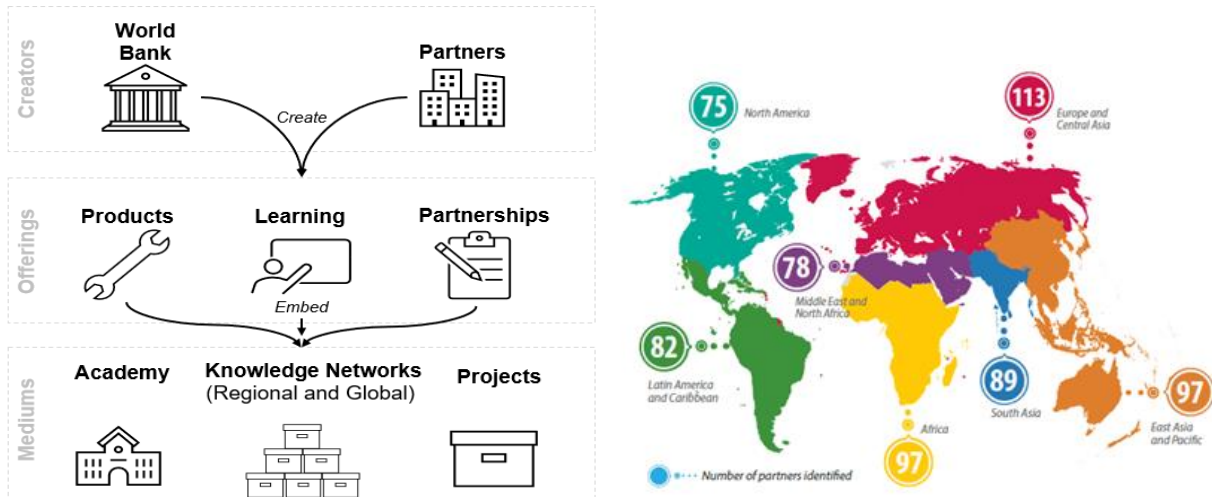
Knowledge partners at national, regional, and global levels

26. Partnerships aim to combine local knowledge and context-specific insights with global best practices and expertise to achieve effective implementation and sustainable development outcomes. The design of recent regional MPAs has demonstrated the role regional partners could play to support project preparation including advancing standardized documentation and activities (e.g., procurement strategies, environmental and social, gender action plans, citizen engagement approaches, measures and approaches for adaptation and resilience). By pairing global expertise with local knowledge, knowledge networks ensure that projects and initiatives are designed and implemented in a way that considers local realities, engages local stakeholders, and builds local capacity while benefitting from regional and global perspectives. Partnering with global and regional organizations such as ASEAN, CAREC, COMESA, ECOWAS, RCREE, SPC, and TDB, many of which are being engaged as part of the ongoing regional MPAs, will build a network of knowledge brokers to further the progress toward energy transition goals.

27. Joint efforts with other multilateral development banks (MDBs) will enable the WBG to be bolder, bigger, and better in tackling the most pressing energy challenges. A recent example of such joint effort is the partnership with AfDB on providing access to electricity for 300 million people in Africa by 2030. Exchanging knowledge and operational insights with the development banks, such as AfDB, ADB, EBRD and AIIB, can allow for a constellation of regional and national energy programs towards the common global goal of energy access and transition with great efficiency and effectiveness. Figure 5 maps out many organizations operating in GCP-E focus areas that could potentially become knowledge partners in each region and globally. The World Bank Group will ensure that GCP has the right partners in each region and that actively promote south-south knowledge and learning platforms. Existing knowledge platforms covering various topics of GCP-E, such as the [Utility Knowledge Exchange Platform](#), [Coal Regions in Transition](#), and the [Energy Storage Partnership](#) will be leveraged for multi-stakeholder dialogues.

¹² The initiative offers utilities in emerging markets (i) access to commercial finance, (ii) access to advisory services and project co-development, and (iii) a membership to a global network of technical experts and business leaders for knowledge sharing on grid digitalization, social priorities, and decarbonization strategies.

Figure 5. GCP-E knowledge architecture (right) & mapping of potential global and regional knowledge partnership (left)



Source: WBG. The full list of organizations can be provided upon request.

Knowledge broker for mutual learning and capacity building

28. Learning opportunities will be enriched, including through the WBG Academy, to amplify successful experiences in client countries. The results areas and foundation areas of the GCP-E are the focus of offerings being developed under the Compact. For example, an initial focus of WBG Academy on energy will be on energy access, energy efficiency, and utility performance improvement. Lessons derived through country and regional programs can be shared globally through south-south knowledge exchange programs and the WBG Academy to facilitate peer-to-peer learning. These exchanges allow clients to share emerging experiences, challenges, and opportunities, participate in dedicated trainings, and encourage ties between regions facing similar challenges. The peer-to-peer learning is intended to bring together the private sector, energy sector institutions, regulators, utilities, international agencies, academia, think tanks, and World Bank teams on important topics for energy transition.

Knowledge curator of analytics and data

29. The GCP-E will be underpinned by in-house analytics and knowledge products. The GCP-E will enable operational knowledge transfer across regions and produce reports on priority topics such as the recently released flagship report on Utility Performance and the Energy Transition. Other relevant analytics include the Energy Progress Report for SDG7, the Regulatory Indicators for Sustainable Energy (RISE), the Global Sustainable Tracking Framework for Utilities, the ESMAP Energy Data Platform, energy modeling results from CCDRs, and results from Country Private Sector Diagnostics (CPSDs). On just transition, GCP-E will mobilize the expertise of relevant global practices to manage the social, environmental, and distributional impacts and create alternative economic opportunities. This will include management of financial liabilities, investment in productive measures with longer social and economic returns such as reskilling, retraining, and ensuring effective social protection systems (SPJ), socially sustainability and inclusive approaches (SSI), and working with IFC to take active market measures to create jobs and bring private investment, including through repurposing fossil fuel sites and assets.

30. The GCP-E will support expansion of energy data in national survey programs (e.g., Living Standards Measurement Study, Poverty) using the Multi-tier Framework methodology, a collaborative effort between the energy and development economics teams. These expanded datasets will be accessible through World Bank's open data catalogue. The GCP-E will also support capacity building to National Statistical Offices, regulators, and relevant sector ministries for improving energy data collection and training to support energy planning through the Global Electrification Platform. To ensure scalability of the capacity building, the GCP-E will support the preparation of training materials such as best practices on electrification planning, spatial data infrastructure maintenance and design, and sampling and survey methodology for Energy Data through the Global Data Facility.

3.3 Targeted concessional finance to address global public goods and affordability

Rationale for concessionality

31. Concessional financing will play an important role in supporting LICs and MICs to achieve energy access and transition affordably. Concessionality can also incentivize investment in activities that generate global public goods, i.e., where the economic costs exceed economic benefits for the country despite sizable cross-border global benefits. Concessional financing as a catalyst to private capital bridges the gap between financial and social returns of energy access and transition investments, thereby improving the relative risk-adjusted returns and bringing investment to fruition while also ensuring that the transition is just and inclusive. Concessional financing helps address some of the critical barriers to private investment in energy access and transition (e.g., by helping strengthen critical institutions, supporting enabling public infrastructure, setting transparent and competitive frameworks for procurement, supporting project preparation, addressing viability gap). Innovative structuring through blended finance is critical to addressing residual investment risks, including technology risks, counterparty credit, and currency mismatches, to catalyze private capital flow.

32. As concessional resources are scarce, a focus will be on increasing fundraising and improving the efficient use of concessionality. The scarcity of concessional resources is a driver for the GCP-E to maximize private capital through bankable program and project design. Yet, if annual World Bank lending were to expand by about 20 percent annually to keep pace with the 7-fold increase in investment needed in client countries, estimates indicate an additional grant element of \$4.5 billion - \$6.2 billion would be needed annually. For efficiency in project preparation, programmatic engagements like that within the GCP-E, would be the most efficient way to leverage concessional funds at scale. Through results and analysis, the GCP-E will build evidence for scaling up multilateral and bilateral concessional climate funds.

33. While concessionality is essential, especially to increase demand from MICs, it should be highly targeted to mobilize and not crowd out private capital. MICs account for three-quarters of the investment needs in energy transition. And because many MICs have sizeable, polluting energy systems and can access capital markets, targeted concessionality is required to de-risk projects and incentivize actions that have high national or financial costs but global benefits. Experience in scaling up energy transition and access investments has shown that the grant-element needed to overcome barriers varies by subsector and country. Concessionality could be offered in different forms including risk mitigation such as first or second loss guarantees, subordination in recovery and payment, credit risk mitigation, results-based interest rate buy-downs, capital buy-down grants, performance-based payments, or subsidy for currency swap costs. For expanding energy access, particularly in IDA countries, grant-type concessional finance is crucial because of the high costs of rural electrification and the limited ability to pay of the people yet to be connected.

Sources of concessionality

34. World Bank advocacy for additional concessional resources will be critical to address global public goods and affordability of the energy transition through the GCP-E. Additional resources need to be mobilized from the WBG Evolution process such as the Framework for Financial Incentives, IDA21 including the Private Sector Window, multi-donor trust fund grant resources, scaled-up financial intermediary funds for climate finance, and carbon finance initiatives. Dedicated fundraising for the weakest links in energy access and transition, including for utility performance and capacity building, would be essential given their foundational importance.

Financial resources mobilized through the WBG Evolution process

35. GCP-E will leverage financial resources mobilized through the WBG Evolution process geared toward stepping up support for the new vision and mission, one of which includes the new Framework for Financial Incentives (FFI). By design, GCP-E operations targeting energy access, efficiency, and transition would address one or multiple of the eight global challenges to generate positive cross-border externalities¹³. Eligible IBRD operations under GCP-E will benefit from the volume and/or price incentives under the FFI to provide the right incentives for clients to scale up their energy access and transition ambitions. As a source of price incentives, the Livable Planet Fund offers a unique value proposition for clients to undertake bold energy transition programs. As the Fund scales up, the GCP-E could absorb as much as \$2 billion a year by 2030 towards the Global Challenges of Adaptation and Mitigation and Energy Access. The pilot Global Public Goods Fund provided \$30 million out of a total amount of \$84 million to transformative energy projects.

36. The Global Collaborative Co-Financing Platform (GCCP) can catalyze co-financing to amplify impacts. As convening mechanism to facilitate co-financing coordination among MDBs and other co-financing partners, GCCP, including its creation of digital Co-Financing Portal, would allow for lower transactional costs and higher leverage that match the clients' growing demand for more efficient and coordinated delivery. GCP-E can bring extensive knowledge and best practices gained from prior co-financing experience.

Regional IDA

37. By taking a regional approach to energy transition in IDA eligible countries, the regional IDA window could supplement the country IDA allocations to deliver solutions and impacts at scale. For example, the energy access MPA in Eastern and Southern Africa region (ASCENT), which aims to provide access to electricity for 100 million people by 2030, established a regional knowledge platform at COMESA and a regional financing facility at the Trade and Development Bank. Tapping into the regional IDA window mobilized an additional \$343 million in IDA credit and \$100 million in IDA grant to supplement \$370 million of country IDA allocations in the first set of operations under ASCENT.

Targeted fund-raising through multi-donor trust funds

¹³ World Bank Group (2024). IBRD Framework for Financial Incentives for Projects that Address Global Challenges with Cross Border Externalities. <https://documents1.worldbank.org/curated/en/099042524224016162/pdf/BOSIB12ba0e0350801bb8517ee244526b14.pdf>

38. New and existing concessional facilities will be aligned to the timing and content of demand from client countries. The Energy Sector Management Assistance Program (ESMAP) Multi-Donor Trust Fund, under its new business plan, is adapting to better support energy access and transition with larger and longer-term commitments through technical assistance for preparatory support, institutional strengthening, and implementation support. ESMAP will play a central role in the scale-up of Bank's energy pipeline and its new business plan will reflect the level of donor grant support to deliver the GCP-E. ESMAP's new Financial Innovation Window intends to support the expansion of innovative, privately led renewable technology investments in underserved markets by structuring tailored risk mitigation instruments (e.g., for liquidity, foreign exchange, early market adoption, operational risks). In addition to ESMAP, other trust funds that champion energy access and transition, like the Public-Private Infrastructure Advisory Facility (PPIAF), Climate Support Facility (CSF), Climate Investment Fund's Technical Assistance Facility (CIF-TAF), Korea Green Growth Trust Funds (KGGTF), will also be accessed in a more systematic way to provide a comprehensive technical assistance to activities under the GCP-E.

Financial intermediary facilities

39. Financial intermediary facilities (FIF)s like the Green Climate Fund, the Climate Investment Funds (CIFs), and the Global Environment Facility (GEF), as well as other bilateral donor facilities have been important sources of supplemental concessional financing beyond IDA for supporting energy access and transition. Currently, the transaction costs of accessing the FIFs are nontrivial, and for some (e.g., GCF) the FIF's own procedures are *additional* to the World Bank's procedures compounding the complexity and effort. Furthermore, the availability of resources is neither consistent nor adequate. Some FIFs urgently need substantial replenishments if climate goals are to be met. Engaging with FIFs to explore possibilities for reducing transaction costs and committing sustained or heightened levels of support for the GCP-E is indispensable to increasing scale. In this context, advocacy for replenishments is critical. MDB climate finance instruments such as CTF could provide large-scale support for clean energy programs in MICs through MDB partnership arrangements.

40. Financing from FIFs can be leveraged for maximum effect of private capital mobilization. The current allocation of existing resources under FIFs for private sector investment are limited. To better leverage existing concessional finance for energy transition, allocations could be optimized to mobilize more private capital. Today the total funding allocation to IFC of US\$852 million represents less than 1 percent of total FIF contributions managed by the World Bank. Advocating for dedicated carve-outs for private sector investment under these FIFs can also help maximize private capital mobilization.

Carbon finance

41. Domestic and international carbon markets have the potential to deliver payments that imposes no fiscal burden or repayment obligations, while mobilizing international private capital to increase the affordability of energy transitions. Emission reductions can be monetized through results-based climate finance (RBCF), voluntary carbon markets, or compliance carbon markets. Mature carbon markets with consistent price signals can improve commercial viability and affordability that scales financing for renewable energy and energy efficiency at the sector level. Voluntary and compliance markets are expected to increase in value in the coming years, however, barriers need to be addressed for the carbon markets to scale up successfully.

42. Scaling Climate Action by Lowering Emissions (SCALE), a multi-donor trust-funded partnership at the World Bank, seeks to provide incentives for clients to generate high-integrity carbon credits that countries can use to achieve their domestic mitigation targets or trade on international carbon markets.

In the energy sector, SCALE will aim to support programmatic energy transition engagements by introducing a new policy and sectoral/jurisdictional crediting approaches to overcome the limitations of project-by-project carbon crediting while requiring the highest standards for environmental and social integrity. SCALE will collaborate with initiatives aiming to aggregate private buyers of carbon credits such as the Energy Transition Accelerator (ETA) promoted by the US Department of State. According to estimates based on intelligence from Bank operations, SCALE initially capitalized at \$300 million could leverage an ambitious energy transition program worth \$7.5 billion in the short-term, so that participating countries could generate up to 100 million high integrity carbon credits over the next five years and build a track record in this space. In close cooperation with the WB Climate Change Group (CCG), all programmatic energy transition engagements will aim to maximize carbon finance opportunities in line with the Bank's Carbon Market Engagement Roadmap launched at COP 28, which can be supported by SCALE or other mechanisms to mobilize carbon finance.

4 Results and Program Management

4.1 Measuring Results, Learning, and Knowledge

43. The GCP-E will produce new operational knowledge and track key outcomes for improving program design. To support LICs and MICs to achieve universal access and energy transition in line with SDG7 and the Paris Agreement, the GCP-E will define metrics for monitoring and evaluation in line with the new Corporate Scorecard and, where applicable, the Integrated Climate Results Framework under development.

44. Standardized indicators for outcomes along the GCP-E results areas include:

- people provided with access to electricity
- projected lifetime energy savings (TWh)
- renewable energy capacity enabled (GW)
- net GHG emissions per year (MtCO₂e)
- people with enhanced resilience to climate risks, incl. access to climate-resilient infrastructure
- volume of private capital enabled, and
- volume of private capital mobilized

45. The effectiveness of the GCP-E approach to deliver intended outcomes will be monitored and evaluated. Intended outcomes include (i) achieving results at scale; (ii) leveraging partnerships to mobilize finance; and (iii) attracting private sector finance. Evaluation findings will inform program implementation and mid-course adjustments. The fundraising and the modalities established in the GCP-E are expected to have spillover benefits to other energy engagements as projects outside of the GCP-E will also be able to take advantage of innovations. The GCP-E will work with the Development Economics team (DEC) and the Development Impact Departments of the World Bank and IFC (DIME and CDI) to design and implement methodologies for learning through implementation and impact evaluation. Evaluations will inform future program design by assessing the effectiveness of specific interventions. The GCP-E may evaluate the impacts of interventions on direct/indirect jobs and increased resilience to climate impacts.

46. The GCP-E will take an evidence-based approach to identifying and replicating what works across programs. A portfolio approach will be used to strategically select a subset of pipeline projects to

inform the GCP's global learning priorities, selected in partnership with WBG Regions. Researchers, operations, and government implementers will participate in "batch preparation" workshops to (i) facilitate the replication of high-impact project design components informed by global impact evaluation evidence; and (ii) integrate a "trial-and-adopt" approach of testing different project delivery modalities through rigorous impact evaluation evidence and systematically scaling the ideas and approaches across the portfolio that generate the highest impact. This systematic approach to learning has been shown to significantly increase the effectiveness of development financing. For results-based carbon financing schemes, it serves as the gold-standard conduit for the robust and rigorous scaling of disbursements. The approach is currently being applied in the Eastern and Southern Africa Region with the ASCENT MPA as part of the Africa LEADS (Learn, Adapt and Scale) program, and will be systematically scaled across other regions in collaboration with DEC, Chief Economist Offices and WBG Regions.

4.2 Operationalization

47. Lessons learned from early GCP-E implementation will continuously inform the approach for subsequent engagements. Implementation will be phased and dynamic; some activities will take effect in FY24, and others will be launched in subsequent years. Adaptive adjustments will be made as needed in response to client and stakeholder feedback in the context of the rapidly changing global environment and the accelerating pace of technology.

48. A GCP-E support team will work with joint regional teams to achieve the ambition of GCP-E. World Bank Group regional teams will engage at the country level and build the operational pipeline, supported by the GCP-E support team. Within IFC regions, GCP-E coordination will be a primary responsibility of regional infrastructure personnel, supported by IFC Global Energy and where appropriate, IFC Advisory Services. The GCP-E support team will include technical focal points from each institution and dedicated corporate support. Dedicated corporate functions pertaining to standardizing and simplifying procurement environmental and social safeguards, gender, citizen engagement, Paris alignment including adaptation and resilience, and World Bank operation and policy will be crucial to address systemic obstacles that regional teams confront in implementing GCP-E programs. There is an opportunity to systematically include guarantee program staff on joint teams and to pilot 1-year staff exchange programs between institutions. The aspiration of GCP-E to champion a new way of working across institutions will require commensurate increases in human and financial resources. WBG resourcing needs will be articulated at the regional level so sufficient staff time can be dedicated for GCP-E engagements.

49. The GCP-E support team will advise regional teams on early program design through hands-on support and peer review. The GCP-E support team will be available to regional teams for quick problem solving, for sharing lessons learned particularly related to operational efficiencies, and for liaising with corporate resources that streamline preparation and implementation. The GCP-E support team will support senior management in mobilizing additional resources, while engaging a dedicated communications team to share updates and strengthen learning. As a central coordination and knowledge body the GCP-E support team would promote institution-wide learning, partnering with the relevant practice groups to ensure effective impact evaluations and data collection.

50. In the first several months of the GCP-E, the support team and the regional teams consisting of IBRD, IFC, and MIGA staff will assess relevant existing initiatives under development, including but not limited to MPAs, to sharpen the opportunities for mobilizing private capital. The team will also make recommendations to management for additional programmatic approaches that could be tested

regionally or globally. When a new programmatic approach is being proposed as part of the GCP-E, IFC and MIGA regional staff will be systematically apprised of new IBRD/IDA energy engagements. The staff will then propose, in conjunction with IBRD staff involved in the engagement, whether IFC and MIGA resources should be deployed. Similarly, IBRD/IDA regional staff will be apprised of IFC and/or MIGA led engagements under the GCP-E to ensure that these engagements are aligned with the overall policy dialogue and engagements of IBRD/IDA.

51. With input from management the regional teams and the GCP-E support team will subsequently identify countries with reasonable potential for private investment as candidates for joint engagement. Some opportunities are likely to involve World Bank Group support to large-scale engagements with potential advisory, investment, credit enhancement, and risk mitigation products as options from the beginning. IFC and MIGA staff will be systematically included from an early stage, assisting IBRD staff and client governments in incorporating elements into the engagement which will help maximize access to private sector capital. This approach may require adjustments in terms of flexibility for IBRD/IDA country staff and IFC energy specialists and efficient management of resources. The differentiation for high or moderate IFC and MIGA engagement, based on PCM volume potential, will be discussed internally across regional vice-presidencies of the three institutions.

4.3 Indicative Pipeline and Next Steps

52. To address the substantial need to scale up energy access and transition investments across regions, the World Bank will accelerate the current pipeline aligned with the GCP-E and identify first mover countries that will generate significant results through a WBG approach. Teams are already working to enhance World Bank Group participation in current operational designs, with increasing ambition for enabling and mobilizing private investment, to achieve scale including through new regional MPAs. Expanded access to investible markets via sector reforms and an increase in availability of concessional resources will be essential.

4.4 Reporting

53. The GCP-E support team described above will be responsible for reporting. As with the rest of GCPs, a progress report on GCP-E delivery will be discussed with the Board at the end of the first full year of implementation (Q4/FY25) and henceforth annually during Q4.

54. Periodic reports will be submitted to management and the Board on GCP-E implementation progress. The VP sponsors and the GCP Secretariat will provide ongoing guidance, promote learning across GCPs, address differences of view that may arise under implementation, and raise matters to the MDs as required. The reporting will be aligned with the structure outlined in the 'Overview of GCP-E', as presented on page vi of the approach paper. In addition to tracking the results, the reporting will articulate the lessons learned to inform future engagements.

55. A summary of outcomes will be provided to senior management twice a year and annually to the World Bank Board to ensure accountability, transparency, and effective implementation. Aggregate metrics that capture implementation progress and results will be included within the reporting framework that will be established for all Global Challenge Programs. The reporting framework will provide opportunities to ensure that GCP-E operations deliver scorecard results.

ANNEX 1: World Bank Group in Energy Access

Some 685 million people in the world do not have any access to electricity out of which 80 percent live in the rural areas, and 2.3 billion people do not have access to clean cooking solutions as of 2022¹⁴. Taking into population growth, 940 million people will need to be connected by 2030, the majority living in the rural areas with very limited affordability. Access rates need to accelerate significantly to meet the SDG7 goal of universal access to affordable, reliable, and sustainable electricity by 2030. Least cost options for electrification based on geospatial analysis includes grid extension and intensification and distributed renewable energy (DRE) solutions mini-grid and stand-alone solar systems (off-grid solutions, OGS).

DREs and clean cooking services are predominantly delivered by the private sector, but financing is highly concentrated in key markets and a few companies. The seven largest OGS companies have captured about 70 percent of all equity and debt financing mobilized for OGS in Sub-Saharan Africa. Similarly, 80 percent of commercial financing in the mini-grid sector has been deployed in six companies.¹⁵ The World Bank jointly launched the Distributed Access with Renewable Energy Scale-up (DARES) Platform during COP27 to double the pace of access expansion through DREs in SSA between now and 2026. It is implemented through five programmatic windows: (i) Mini grids, (ii) Off-grid solar markets, (iii) Electrifying schools and health facilities (iv) Powering farmers, and (iv) Commercial and Industrial (C&I) and grid-edge innovations. DARES provides analytics, collaboration, innovation and co-creation of approaches and instruments rolled out through joint efforts of the World Bank, IFC, and MIGA. As part of implementation of the DARES, the ASCENT Program in AFE region is supporting a regional financing facility with the Trade and Development Bank (TDB) up to scale-up access to DRE and clean cooking solutions. A coordination mechanism is being set up to leverage opportunities for syndication and other financing, including with the IFC. This will allow for the possibility of the TDB syndicated transactions to benefit from MIGA's risk mitigation instruments. The facility aims to mobilize US\$400 million in additional capital through co- and on-lending structures.

Public-Private Partnerships (PPPs) play an important role in improving efficiencies in delivering public services and narrowing the infrastructure gap. During the past 25 years, more than 5,000 infrastructure projects in 121 LICs and MICs were delivered through PPPs, representing investment commitments of US\$1.5 trillion¹⁶. PPP in high-voltage transmission could be an element in freeing up scarce public resources to focus on medium and low-voltage network investments and increasing grid access. IBRD/IDA can support developing the enabling policy and regulatory environment; support for competitive transaction management will also have to be organized, with IFC transaction advisory services one option for helping client countries in that area. Additionally, guarantees can be utilized to provide credit enhancement for public sector projects or de-risk PPP projects.

A different approach is needed to achieve universal access in urban and peri-urban areas. Between now and 2030, 50 million new households need to be electrified in Sub-Saharan African cities, in addition to the 22 million urban unelectrified households as of 2021. IFC will work with IBRD/IDA to identify markets for private investment-forward approaches within a context of private solutions to urban utility commercialization. These interventions will complement IBRD/IDA-financed access programs to sync parallel investment programs within a country. The goal of approaching access in this fashion is to focus private finance (potentially raised through guarantees) where it is feasible (urban and peri-urban settings) while rural electrification (where commercial approaches are likely to be much more difficult) leans relatively more heavily on public investment backed by significant concessional and grant resources.

¹⁴ SDG7 Global Tracking Report 2024

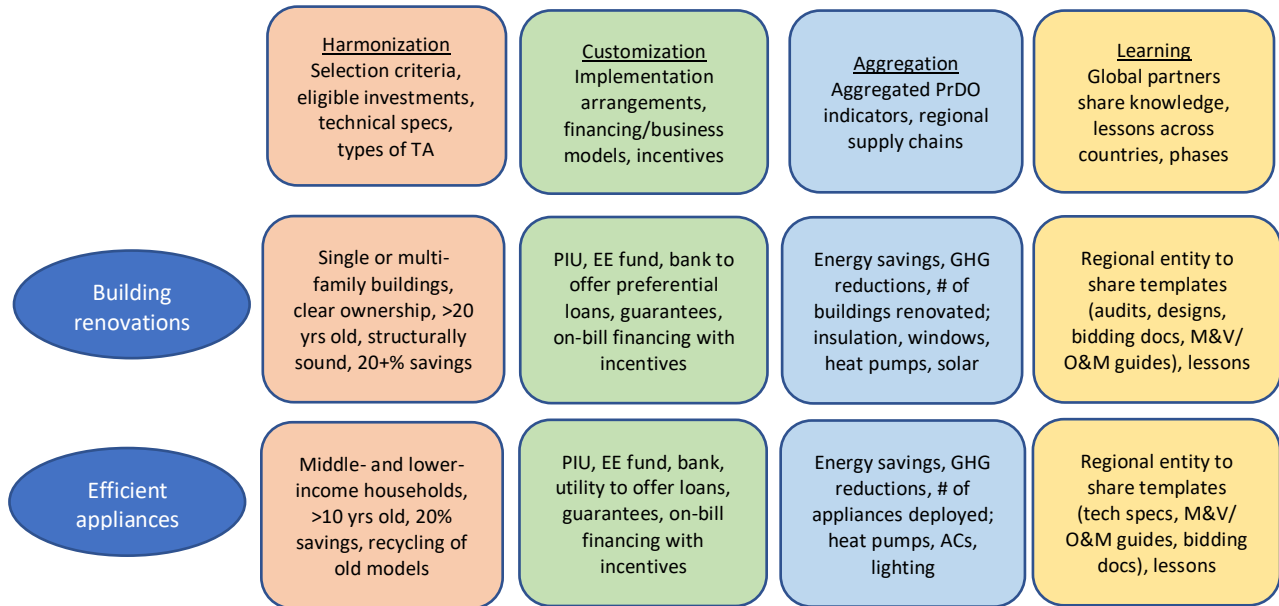
¹⁵ ESMAP: Mini Grids for Half a Billion People, 2022; World Bank, IFC, GOGLA, CLASP: Off-grid Solar Market Trends Report, 2022

¹⁶ Benchmarking Public-Private Partnerships Procurement, 2017; World Bank and PPIAF

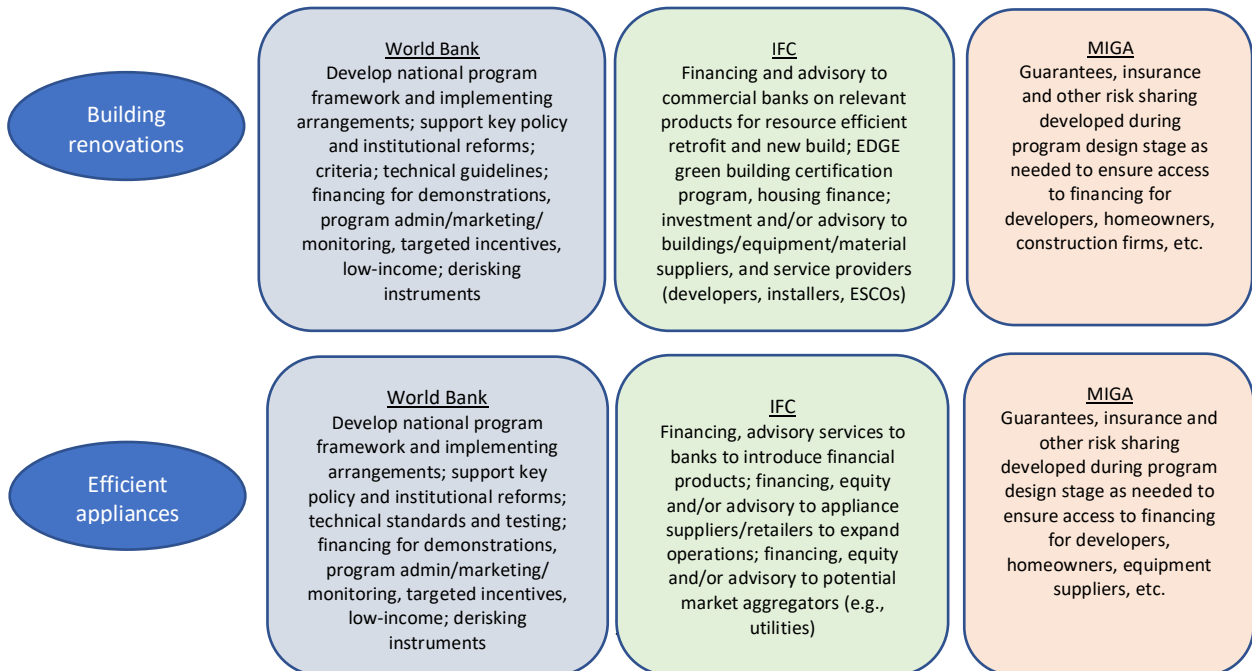
ANNEX 2: World Bank Group in Energy Efficiency

Scope. The GCP-E will bring together global, regional, and local knowledge to support policies to accelerate energy efficiency improvements and the development of sustainable financing programs that can attract both public and private resources. Investments would be made to reduce energy use through investments in the major end-use sectors, including public, residential, and industrial sectors, as well as the supply side (sustainable heating). Parallel policy and regulatory amendments, institutional strengthening, market development and other activities would also be supported to enable the client countries to achieve greater levels of ambition, scale, sustainability, and public and private leverage.

Benefits. The energy efficiency window would allow for replication and harmonization of several aspects, allow for some customization, benefit from aggregated markets and impacts, and learning. Two examples of this, for the **residential sector**, are list below.



For the examples above, a World Bank Group approach would help mobilize the public and private financing needed to achieve the desired scale. This could be done as follows:



ANNEX 3: World Bank Group in Renewable Energy and Network Integration

Objective: To increase renewable energy in participating countries and private investment in renewable energy. Results indicators include: (i) renewable energy capacity enabled (MW)– a corporate scorecard indicator; (ii) private capital mobilized (\$); and (iii) private capital enabled (\$).

Scope. GCP-E aims to increase renewable energy (RE) capacity with a strong PCE/PCM leverage. This is estimated to require a growth in World Bank Group lending for renewable energy and network integration. The ‘virtuous cycle’ approach to scale up private investment to accelerate scaling up of renewable energy (Figure 1) underpins the design of this window. The window will emphasize four dimensions: 1) enabling policies; 2) effective institutions - concentrated on strengthening utilities’ corporate governance, financial and operational viability; 3) grid integration by enhancing transmission and distribution networks; 4) renewable energy early-stage project development and financing.

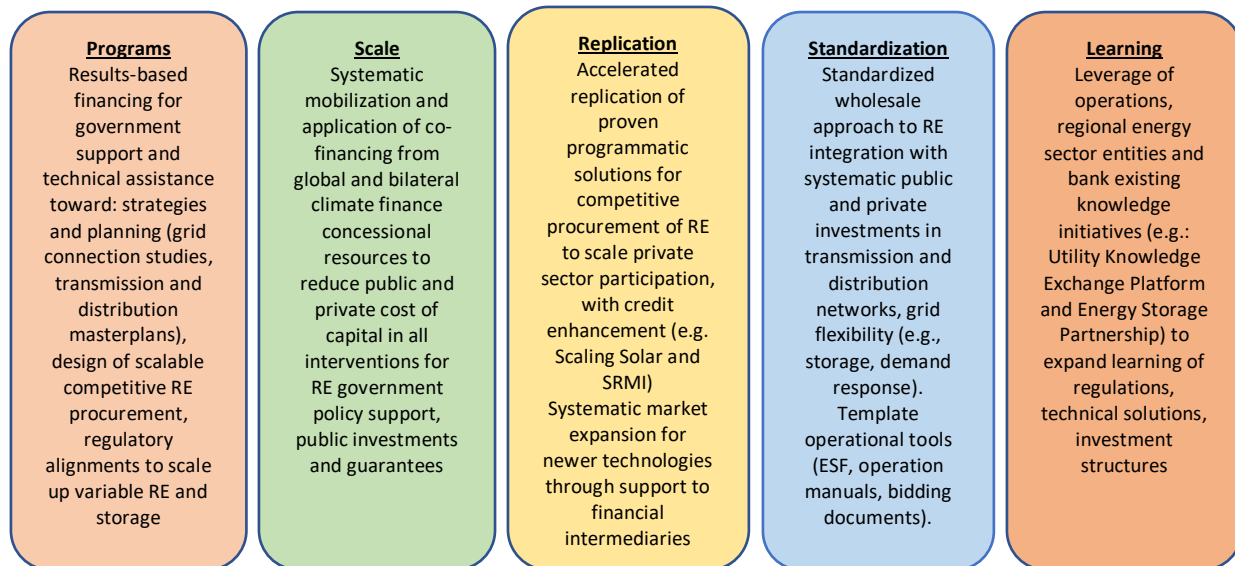
World Bank Group approach will systematize:

Upstream joint assessments and definition of priority areas for preferential application of public or private investments and concessional capital towards:

- RE investment expansion and integration opportunities at country level
- Definition of investment mobilization targets, pipeline, and potential global initiatives to address specific barriers (ex.: technology deployment like offshore wind; or decarbonization uses like Ending Diesel initiative)

Use of jointly developed programmatic instruments (MPA, DPF, IFC Platforms) and guarantees to expand investment mobilization with all potential clients: government and regulatory entities, development banks, state-owned electricity utilities (including transmission companies and distribution companies), private developers.

Benefits. The RE window will seek replication and harmonization of several interventions, benefit from aggregated markets and impacts, and expand learning to systematize lessons learnt.



ANNEX 4: World Bank Group in Utility Performance Improvement

Objective: To improve financial sustainability and operational efficiency of energy sector utilities.

Scope: Fewer than 40 percent of power sector utilities in the LICs and MICs recover operating and debt service costs, even accounting for fiscal transfers and subsidies. The situation is worse for utilities in LICs, many of which suffer from high costs of supply, high system losses, below-cost-recovery tariffs, and weak revenue collection. For the transmission (T) segment, poor management of transmission system expansion and lack of institutional capacity jeopardize the reliability of electricity supply, especially as the share of variable renewable energy increases as part of countries' decarbonization efforts. The distribution (D) segment is challenged by inadequate procurement practices, high technical and commercial losses, low collections, and inadequate pricing that does not recover the full cost of service. Poor performance of distribution and retail SOEs undermine financial sustainability in all segments of the power sector value chain and result in poor service to electricity consumers. Financially viable and operationally efficient utilities are foundational for sustainable power sector operation and enabling GCP-E's other core results areas. Weak utilities cannot serve as credible off-takers for clean energy, or as operators of strong and climate resilient grids. The window will emphasize utility financial performance; efficiency and reliability of supply; planning, expansion, and modernization of the T&D networks.

Outcome indicators: (i) Number of T&D utilities achieving cost recovery, (ii) T&D loss reduction (%), (iii) number of transmission outages and interruptions, (iv) energy not served (GWh), (v) km of transmission, (vi) US\$ of private capital mobilized, (vii) T&D service quality improvements (e.g., SAIDI/SAIFI).

World Bank Group approach will systematize:

- Upstream joint assessments and definition of priority areas for preferential application of public or private investments and concessional capital towards network expansion, modernization, and improvement of the financial health of utilities.
- IPFs to support operational performance improvements (MIS, SCADA, etc.), climate resilient network expansion, including integrated resource planning, assessment of system reliability/resilience, resolving transmission limitations or flexibility needs.
- Programmatic DPFs to enable policy, regulatory and institutional reforms that are necessary for the utility turnaround, commercialization, and sustainable energy sector operation, with adjustable triggers in each successive operation to reflect the implementation progress and changes in external factors.
- Increasing use of PforRs to support governance reforms, business process reengineering, and efficiency improvement to enhance utility viability as off-takers for private RE generation.
- Supporting SOE utilities' access to commercial borrowing and capital markets. Guarantees/first loss instruments to support debt optimization alongside policy commitments and to enable access to longer term and lower cost financing including from IFC SOE window, ESG investors or commercial banks alongside a broader engagement on sector reforms. Guarantees to backstop T&D concessions' payment and termination compensation obligations.
- Innovative financing solutions for restoring utility creditworthiness (e.g., medium- to long-term concessions for electricity services, refinancing utility debt on concessional terms with credit guarantees, asset monetization, outsourcing of commercial operations of selected feeder lines/network).
- Promoting PPP in high-voltage transmission, energy storage solutions, and smart metering to free up scarce public resources. IBRD/IDA can support developing the enabling policy and regulatory environment and provide transaction advisory support for the competitive selection of PPP operators with IFC transaction advisory services as one option. Additionally, IDA/MIGA guarantees can be utilized to provide credit enhancement or to de-risk PPP projects for transmission.

Potential client engagement: AFR (South Africa, Ghana, Nigeria, Cameroon, Cote d'Ivoire, Senegal), SAR (India, Pakistan, Bangladesh) etc.