## ENERGY SECTOR MANAGEMENT ASSISTANCE PROGRAM

## **ANNUAL REPORT 2022**

**ANNEXES** 





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## RESULTS AND TARGETS ACHIEVED, FOR BUSINESS PLAN FY2022-24

Detailed progress descriptions are provided at: https://esmap.org/activities?type=businessPlanFramework

| Acronyn | าร                              | Region | S                               |
|---------|---------------------------------|--------|---------------------------------|
| ASA     | Advisory Services and Analytics | AFR    | Africa                          |
| EAPP    | East African Power Pool         | EAP    | East Asia and Pacific           |
| GHG     | Greenhouse Gases                | ECA    | Europe and Central Asia         |
| MTF     | Multi-Tier Framework            | LCR    | Latin America and the Caribbean |
| PV      | Photovoltaics (solar)           | MNA    | Middle East and North Africa    |
| RE      | Renewable Energy                | SAR    | South Asia Region               |
| RBF     | Results-Based Financing         |        |                                 |
| SAPP    | South African Power Pool        |        |                                 |
| WAPP    | West African Power Pool         |        |                                 |

#### **FOUNDATIONS FOR ENERGY TRANSITION**

| OUTCOME 1:                  | rdability of Power                          | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024                          |
|-----------------------------|---|--------------------------|-------------------------------------|---|
| Outcome<br>Indicator 1.1    | Reduction in average cost of power supplied | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 70% of<br>ESMAP<br>supported<br>countries |
|                             |   |                          |                                     |   |
| OUTCOME 2:<br>Improved Fina | ncial Viability of Power Sector             | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024                          |

<sup>1</sup> The target was updated to the percentage rather than the score for the green threshold, for consistency with the description of the indicator "RISE score on utility creditworthiness reaches the green threshold in all ESMAP supported countries."

| OUTCOME 3:<br>Electricity Sect | or Carbon Intensity Reduced   | PROGRESS<br>FY2022   | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024  |
|--------------------------------|---|--|-------------------------------------|---|
| Outcome<br>Indicator 3.1       | Carbon per unit of power generated  | IEA reports emissions data every two years but with a 3-year lag. The IFI database for 2021 includes 2018 data and it is expected that data for 2023 will be available in the database revision of 2025. ESMAP will report on the latest data available each year and at the end of its business plan. | Not yet due<br>(ongoing)            | 700 tCO2/<br>kWh  |
| OUTCOME 4:<br>Fiscal Burden o  | of Power Sector Reduced   | PROGRESS<br>FY2022   | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024  |
| Outcome<br>Indicator 4.1       | Reduction in fiscal transfers to the power sector in the countries receiving ESMAP support during business plan | \$3.2 billion  | 3.2                                 | Reduced by<br>\$2 billion                               |
| OUTCOME 5:<br>Improved Qual    | ity of Electricity Service  | PROGRESS<br>FY2022   | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024  |
| Outcome<br>Indicator 5.1       | Improvement in Doing Business<br>score on Reliability of Supply and<br>transparency of tariff [index 0-8]       | Not applicable   | Not yet due<br>(ongoing)            | 1% improvement against baseline 2.3 in 2020             |
|                                | e of Female Employees, Leaders,<br>and Consumers in the Energy Sector   | PROGRESS<br>FY2022   | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024  |
| Outcome<br>Indicator 6.1       | Increased share of female employees in<br>energy sector World Bank projects                                     | 12%  | Not yet due<br>(ongoing)            | 5% improvement over baseline for each supported project |

| Outcome<br>Indicator 6.2                 | Increased share of women<br>entrepreneurs in energy sector World<br>Bank projects                              | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 10% improvement over baseline for each supported project |
|--|--|--------------------------|-------------------------------------|--|
| Outcome<br>Indicator 6.3                 | Increased productivity of female farmers<br>and business owners supported by<br>World Bank energy projects     | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 10% improvement over baseline for each supported project |
|  | OUTCOME 1:<br>nas capacity, flexibility, financial<br>iver energy transition                                   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024   |
| Intermediate<br>Outcome<br>Indicator 1.1 | Volume of World Bank lending that contributes to the achievement of the Outcomes through identified aspects    | \$4.2 billion            | 8.2                                 | \$50 billion   |
| Intermediate<br>Outcome<br>Indicator 1.2 | Number of utilities that have implemented process changes consistent with new business models and technologies | 1                        | 1                                   | 30   |
| Intermediate<br>Outcome<br>Indicator 1.3 | Number of regulators that take account of technology disruptions in regulations issued                         | 1                        | 1                                   | 30   |
| Intermediate<br>Outcome<br>Indicator 1.4 | Number of countries with implementation roadmaps developed for Just Transition                                 | 1                        | 1                                   | 2  |
| Intermediate<br>Outcome<br>Indicator 1.5 | Percentage of ESMAP-supported countries adopting improved policy and regulation for sustainable energy         | 4%                       | 12%                                 | 100%   |
| Intermediate<br>Outcome<br>Indicator 1.6 | Increased power trade (between countries)  | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 168 TWh  |
| Intermediate<br>Outcome<br>Indicator 1.7 | Number of countries with new markets for energy services   | 12                       | 13                                  | 10   |
| Intermediate<br>Outcome<br>Indicator 1.8 | Countries inter-connected and trading  | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 54   |

| Intermediate<br>Outcome<br>Indicator 1.9   | Number of countries with official plans to reform energy subsidies (incl. reforming social protection, incorporating energy efficiency measures, and implementing communication campaigns as part of subsidy reform efforts)  | 5                        | 12                                  | 20               |
|--|---|--------------------------|-------------------------------------|------------------|
| Intermediate<br>Outcome<br>Indicator 1.10  | Number of countries that have<br>strengthened their social protection<br>systems to ensure the poor are not<br>worse off due to energy subsidy reforms  | 2                        | 5                                   | 10               |
| Intermediate<br>Outcome<br>Indicator 1.11  | Coal capacity reduced through coal plant retirement/repurposing   | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 5 GW             |
| Intermediate<br>Outcome<br>Indicator 1.12  | Private co-financing mobilized  | Not yet due<br>(ongoing) | \$47 million                        | \$5 billion      |
|  | OUTCOME 2:<br>s expanded support to promoting<br>r in the energy sector   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome  | % of World Bank projects supported by   | 93%                      | 92%                                 | 70%              |
| Indicator 2.1  | ESMAP to meet Gender Tag to close gaps between women and men (in access, entrepreneurship, and employment)  |                          |                                     |                  |
| Indicator 2.1  INTERMEDIATE Countries have                                       | between women and men (in access, entrepreneurship, and employment)   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Indicator 2.1  INTERMEDIATE Countries have                                       | between women and men (in access, entrepreneurship, and employment)  OUTCOME 3: supported employment opportunities  |                          | PROGRESS                            |                  |
| Indicator 2.1  INTERMEDIATE Countries have for women in the Intermediate Outcome | between women and men (in access, entrepreneurship, and employment)  OUTCOME 3: supported employment opportunities ne energy sector  Number of additional countries that have adopted policies or plans to enhance women's employment at the utility level [across recruitment, retention and promotion with a focus on equal | FY2022                   | PROGRESS<br>FY2021-24               | FY2024           |

| Intermediate<br>Outcome<br>Indicator 3.4 | Number of countries where there is<br>a World Bank Group engagement in<br>supporting development of roadmaps<br>including maximizing socioeconomic<br>benefits derived from GHG<br>development with a focus on women's<br>employment and skills development | 6                        | 11                                  | 20               |
|--|---|--------------------------|-------------------------------------|------------------|
|  | OUTCOME 4:<br>supported women's entrepreneurship<br>ector and productive uses of energy   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 4.1 | Percentage of IDA off-grid electrification operations tackling women's entrepreneurship, and access to finance gaps (Electricity Access program)  | 100%                     | 100%                                | 100%             |
| Intermediate<br>Outcome<br>Indicator 4.2 | Strategies adopted at the country level<br>on closing productivity gaps between<br>male and female farmers and business<br>owners (Electricity Access program)  | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 10               |
| Intermediate<br>Outcome<br>Indicator 4.3 | Percentage of Clean Cooking Fund<br>supported projects that have<br>proactive actions to promote female<br>employment/entrepreneurship and<br>gender co-benefits  | 100%                     | 2                                   | 100%             |
| Intermediate<br>Outcome<br>Indicator 4.4 | Number of new decarbonization projects with enhanced focus on productivity gaps and livelihoods for women   | 1                        | 5                                   | 8                |
| women in host                            | OUTCOME 5:<br>adopted strategies to support<br>and marginalized communities as<br>ne energy sector  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 5.1 | Countries supported by ESMAP that have integrated electrification of displaced people, host, and marginalized communities in electrification programs, with a focus on the needs of women and girls   | 1                        | 1                                   | 15               |
| OUTPUTS:<br>Utilities for Ene            | rgy Transition  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 1                                 | Flagship report(s): Energy Transition:<br>business and regulatory models in<br>developing countries   | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 1                |

| Output 2                   | Training/Events: Digital Academy, to identify and transfer emerging global knowledge, best practice, and deliver training in 5 key areas  | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 1                |
|----------------------------|---|--------------------------|-------------------------------------|------------------|
| Output 3                   | Tools: Standard documentation for procurement of new technologies (including DER, digital solutions)  | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 1                |
| Output 4                   | Country/Regional Grants: Policy/<br>regulatory studies, advice, and<br>capacity building; technical studies,<br>advice, and capacity building;<br>stakeholder engagement; innovative<br>project development and budget<br>support design.   | 8                        | 9                                   | 15               |
| OUTPUTS:<br>Markets. Conne | ectivity, and Trade   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 1                   | Flagship report(s): (1) Design of next generation commercial agreements and market tools; (2) Increasing system flexibility via efficient ancillary   | 2                        | 2                                   | 2                |
|                            | service markets   |                          |                                     |                  |
| Output 2                   | service markets  Analyses: Analytical studies on regional power trade   | 2                        | 3                                   | 2                |
| Output 2 Output 3          | Analyses: Analytical studies on regional  | 2                        | 3                                   | 2                |
| ·                          | Analyses: Analytical studies on regional power trade  Tools: Best practices on wholesale markets, technical and regulatory  |                          |                                     |                  |
| Output 3                   | Analyses: Analytical studies on regional power trade  Tools: Best practices on wholesale markets, technical and regulatory harmonization for regional power pools  Training/Events: Knowledge exchange, workshops, trainings on Market  | 2                        | 3                                   | 2                |
| Output 3 Output 4          | Analyses: Analytical studies on regional power trade  Tools: Best practices on wholesale markets, technical and regulatory harmonization for regional power pools  Training/Events: Knowledge exchange, workshops, trainings on Market deployment, and Power System Planning  Country/Regional Grants: Assessments/ studies/technical reports; Strategy analyses and investment plans; Surveys/ datasets; Workshops/conferences | 5                        | 3                                   | 2                |

| Output 2                   | Training/Events: Internal and external knowledge exchange fora every year   | 9                        | 19                                  | 4                |
|----------------------------|---|--------------------------|-------------------------------------|------------------|
| Output 3                   | Country/Regional Grants: Subsidies assessments, energy reform design, energy reform implementation, stakeholder engagement  | 60                       | 115                                 | 165              |
| OUTPUTS:<br>Closing Gender | Gaps  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 1                   | Flagship report(s): (1) Gender and<br>Hydropower; (2) Environmental and<br>social (incl. Gender) considerations in<br>offshore floating solar development   | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 2                |
| Output 2                   | Analyses: (1) 20 MTF country reports (covering gender gaps); (2) 2 MTF Insight reports: gender & impact evaluation; (3) 4 Annual Gender and Access reports  | 1                        | 1                                   | 3                |
| Output 3                   | Training/Events: (1) Women's leadership in Decarbonization of Public Sector and End Uses in developing countries; (2) Innovative technology, business, and financing approaches in Clean Cooking: Women's and Men's Preferences and Needs | 1                        | 1                                   | 2                |
| Output 4                   | Country/Regional Grants: Regional gender and energy programs, operational support   | 1                        | 7                                   | 15               |
| OUTPUTS:                   |   | PROGRESS                 | CUMULATIVE PROGRESS                 | TARGET           |

| OUTPUTS:<br>Support to Coa | al Regions in Transition   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|----------------------------|--|--------------------------|-------------------------------------|------------------|
| Output 1                   | Platforms: Regional Collaboration<br>Platforms for Coal Regions in<br>Transition (2-3) | Not yet due<br>(ongoing) | 1                                   | 2                |
| Output 2                   | Training/Events: Coal Regions in Transition Learning Academy (2 deliveries annually)   | 2                        | 2                                   | 8                |
| Output 3                   | Analyses: Coal plant decommissioning/<br>repurposing studies for 15-20 plants          | 1                        | 2                                   | 2                |
| Output 4                   | Country/Regional Grants: Upstream technical studies, strategies, and roadmaps          | Not yet due<br>(ongoing) | 2                                   | 8                |

| OUTPUT:<br>Deliverables | s funded with Annual Block Grants          | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|-------------------------|--|--------------------|-------------------------------------|------------------|
| Output 1                | Technical Reports, Studies,<br>Assessments | 98                 | 177                                 | 300              |

#### **ENERGY DATA AND ANALYTICS**

|                          | ounterparts Use the<br>lence in Policy Decisions   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|--------------------------|--|--------------------------|-------------------------------------|------------------|
| Outcome<br>Indicator 1.1 | World Bank energy lending operations informed by using the Energy Data & Analytics datasets, applications, and knowledge reports (incl. using energy data to close gender gap in energy services)                    | 31%                      | 36%                                 | 100%             |
| Outcome<br>Indicator 1.2 | New World Bank ASA projects<br>supported by ESMAP confirm and<br>illustrate the use of Energy Data &<br>Analytics datasets, applications, and<br>knowledge reports   | 100%                     | 100%                                | 100%             |
| Outcome<br>Indicator 1.3 | Evidence of uses of Energy Data & Analytics outputs in well-established global initiatives (publications, indexes, research series, white papers from global institution incl. World Economic Forum, UN, IRENA, IEA) | 3                        | 8                                   | 10               |
| OUTPUTS:                 |  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 1                 | Publication of the Tracking SDG7 Report  | 1                        | 2                                   | 4                |
| Output 2                 | Publication of RISE analytical platform website  | 0                        | 1                                   | 2                |
| Output 3                 | Publication of MTF Country Report (focus on gender gaps in each report)  | 3                        | 3                                   | 20               |
| Output 4                 | Publication of MTF insight on gender and impact evaluation   | 2                        | 2                                   | 2                |
| Output 5                 | Refugees Data Report Publication   | Not yet due<br>(ongoing) | Not yet due (ongoing)               | 1                |

| Output 6  | Knowledge products (incl. RBF data platform) on clean cooking  | Not yet due<br>(ongoing) | 2                        | 10    |
|-----------|--|--------------------------|--------------------------|-------|
| Output 7  | Regulatory benchmarking index portal   | Not yet due<br>(ongoing) | 1                        | 2     |
| Output 8  | Launching of Global Electrification Platform 2.0   | 1                        | 1                        | 1     |
| Output 9  | Capacity building workshop for GEP   | Not yet due<br>(ongoing) | Not yet due (ongoing)    | 4     |
| Output 10 | Residential customer demand estimation report including algorithm and input data by country                        | Not yet due<br>(ongoing) | Not yet due<br>(ongoing) | 20    |
| Output 11 | Agriculture energy demand estimation report, including algorithm and input data by country                         | 1                        | 2                        | 20    |
| Output 12 | Dissemination of demand assessment toolkit (survey instrument and opensource algorithm)                            | 1                        | 2                        | 1     |
| Output 13 | Adding new institutional partners on<br>EnergyData platform that would publish<br>at least 1 dataset each          | 4                        | 8                        | 12-15 |
| Output 14 | Publish analytical pieces on EnergyData platform   | 3                        | 9                        | 15-20 |
| Output 15 | Present Energy Data and Analytics Hub<br>work at World Bank Group/partner/<br>international events and conferences | Not yet due<br>(ongoing) | 2                        | 3-5   |
| Output 16 | Launch of updates to other existing applications (Global Solar Atlas, Global Wind Atlas, etc.)                     | Not yet due<br>(ongoing) | 2                        | 3     |

#### **ACCELERATING DECARBONIZATION**

|                          | Adopt Policies and Plans<br>Decarbonization   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|--------------------------|---|--------------------------|-------------------------------------|------------------|
| Outcome<br>Indicator 1.1 | Estimated GHG emissions reduced or avoided under government policies and plans up to 2030 (lifetime million $MtCO_2e$ ) | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 1,100            |

|  | Public and Private Investment<br>ecarbonization   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|--|---|--------------------------|-------------------------------------|------------------|
| Outcome<br>Indicator 2.1                 | Expected GHG emissions reductions under World Bank Group financed projects (lifetime million MtCO <sub>2</sub> e) | 10.24                    | 48                                  | 360              |
| Outcome<br>Indicator 2.2                 | Number of World Bank Group financed projects that reduce or avoid GHG emissions, of which:                        | 29                       | 43                                  | 60               |
|  | 2.2.1: Number of projects financed that target decarbonization in the public sector                               | 10                       | 14                                  | 22               |
|  | 2.2.2: Number of projects financed that include use of innovative technologies in industry                        | 3                        | 5                                   | 10               |
|  | 2.2.3: Number of projects financed that are "cooling informed"  | 14                       | 22                                  | 20               |
|  | 2.2.4: Number of projects financed that include green hydrogen  | Not yet due<br>(ongoing) | Not yet due (ongoing)               | 4                |
|  | 2.2.5: Number of projects financed that include geothermal direct use   | 2                        | 2                                   | 4                |
| Outcome<br>Indicator 2.3                 | Volume of financing mobilized for projects that support accelerated decarbonization, of which:                    | \$3.9 billion            | \$6.4 billion                       | \$3.6 billion    |
|  | 2.3.1: World Bank Group financing mobilized   | \$3.8 billion            | \$6.3 billion                       | \$2.5 billion    |
|  | 2.3.2: Climate finance mobilized  | \$1.8 million            | \$26.8 million                      | \$300 million    |
|  | 2.3.3: Private financing mobilized  | \$95 million             | \$95 million                        | \$800 million    |
|  | oup has expanded its support to<br>f client countries to achieve Zero   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 1.1 | Number of countries with World Bank<br>Group engagement on decarbonizing<br>the public sector                     | Not yet due<br>(ongoing) | 20                                  | 20               |

| a wide range of                          | OUTCOME 2:<br>oup has expanded its support to<br>client countries on access and<br>nt, clean cooling                          | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|--|---|--------------------------|-------------------------------------|------------------|
| Intermediate<br>Outcome<br>Indicator 2.1 | Number of countries where there is active World Bank Group engagement on sustainable cooling                                  | 16                       | 29                                  | 18               |
|  | oup has expanded its support<br>Il innovation in industrial   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 3.1 | Number of innovative technologies<br>that are part of active World Bank<br>Group engagements on industrial<br>decarbonization | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 5                |
|  | OUTCOME 4:<br>oup has expanded its support on<br>n and/or fuel cell technologies  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 4.1 | Number of countries, including green hydrogen and/or fuel cell technologies in their decarbonization strategies               | 4                        | 4                                   | 8                |
|  | OUTCOME 5:<br>oup has expanded its support<br>:hermal Direct Use  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 5.1 | World Bank Group is supporting wide range of client countries to develop Geothermal Direct Use                                | 2                        | 6                                   | 6                |
|  | OUTCOME 6:<br>supported women's entrepreneurship<br>ector and productive uses of energy                                       | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 6.1 | ESMAP-funded decarbonization projects that include a significant women's leadership and employment component/pilot            | Not yet due<br>(ongoing) | 6                                   | 8                |
| Intermediate<br>Outcome<br>Indicator 6.2 | Number of projects with enhanced focus on productivity gaps and livelihoods for women   | 2                        | 6                                   | 8                |
| OUTPUT:<br>Zero Carbon Pu                | blic Sector   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 1                                 | Flagship Report: Opportunities for achieving decarbonization in the public sector   | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 1                |

| 0                             | Floredia Departs Theorem 1 6   | 4                             | 4                                   | 1                |
|-------------------------------|--|-------------------------------|-------------------------------------|------------------|
| Output 2                      | Flagship Report: The economics of electric mobility  | 1                             | 1                                   | 1                |
| Output 3                      | Country/Regional Grants: Upstream sector analysis; policy, regulation, plans and strategies; technical, economic, and financial analyses; capacity building  | 36                            | 67                                  | 64               |
| OUTPUT:<br>Industrial Deca    | rbonization  | PROGRESS<br>FY2022            | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 4                      | Flagship Report: Technology innovations for industrial decarbonization in developing countries   | Ongoing                       | Ongoing                             | 1                |
| Output 5                      | Training/Events: Two dissemination workshops on results of global studies  | Not yet due<br>(ongoing)      | Not yet due<br>(ongoing)            | 2                |
| Output 6                      | Country/Regional Grants: Technical studies and advice; implementation models; pilot projects on innovative technologies  | 21                            | 25                                  | 25               |
| OUTPUT:<br>Efficient and Cl   | ean Cooling  | PROGRESS<br>FY2022            | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|                               |  |                               |                                     |                  |
| Output 7                      | Report: Access to energy and cooling (sustainable cold chains)   | Not yet due<br>(ongoing)      | 3                                   | 4                |
| Output 7 Output 8             |  |                               | 3<br>5                              | 10               |
| ·                             | (sustainable cold chains)  Report: Brief(s) on innovative sustainable  | (ongoing)                     |                                     |                  |
| Output 8                      | (sustainable cold chains)  Report: Brief(s) on innovative sustainable cooling technologies and systems  Training/Events: Workshops/ exchanges on efficient, clean cooling  | (ongoing)                     | 5                                   | 10               |
| Output 8 Output 9             | (sustainable cold chains)  Report: Brief(s) on innovative sustainable cooling technologies and systems  Training/Events: Workshops/ exchanges on efficient, clean cooling in developing countries  Country/Regional Grants: Upstream sector analysis and engagements; policy and regulatory frameworks; identification and design of technical options, implementation, and financing models; economic and financial analyses; capacity building | (ongoing)  1  4               | 5                                   | 10               |
| Output 8  Output 9  Output 10 | (sustainable cold chains)  Report: Brief(s) on innovative sustainable cooling technologies and systems  Training/Events: Workshops/ exchanges on efficient, clean cooling in developing countries  Country/Regional Grants: Upstream sector analysis and engagements; policy and regulatory frameworks; identification and design of technical options, implementation, and financing models; economic and financial analyses; capacity building | (ongoing)  1  4  13  PROGRESS | 5 10 15 CUMULATIVE PROGRESS         | 10 10 20 TARGET  |

| Output 13                | Training/Events: Two regional workshops   | 2                        | 2                                   | 2                |
|--------------------------|---|--------------------------|-------------------------------------|------------------|
| Output 14                | Country/Regional Grants: Country workshops, direct use roadmaps, capacity building  | 0                        | 0                                   | 6                |
| OUTPUT:<br>Green Hydroge | n   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 15                | Report: Green hydrogen for multi-<br>sectoral deep decarbonization of<br>developing countries (co-led between<br>industrial decarbonization and green<br>hydrogen programs) | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 1                |
| Output 16                | Report: Technical safety and project design framework   | Not yet due<br>(ongoing) | Not yet due (ongoing)               | 1                |
| Output 17                | Training/Events: Technology-focused workshops and regional exchange events  | 3                        | 5                                   | 2                |
| Output 18                | Country/Regional Grants: Country strategies and roadmaps; policies, regulations, and standards; capacity building; pre-feasibility studies                                  | 4                        | 5                                   | 12               |
| OUTPUT:<br>All           |   | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 19                | Workshop on women's leadership in decarbonization of public sector and end uses in developing countries   | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 1                |

#### **CLEAN COOKING**

| OUTCOME 1:<br>Improved Acces | ss to Clean Cooking in Client Countries   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|------------------------------|---|--------------------|-------------------------------------|------------------|
| Outcome<br>Indicator 1.1     | Number of people who gained access to clean cooking resulting from policies, programs, and strategies | 21.5 million       | 61.5 million                        | 200 million      |
| Outcome<br>Indicator 1.2     | Number of people who gained access to clean cooking resulting from financed projects                  | 7.1 million        | 9.2 million                         | 100 million      |
| Outcome<br>Indicator 1.3     | Amount of investments mobilized (incl. both public and private financing)                             | \$77.31 million    | \$107.31<br>million                 | \$2 Billion      |

|  | dopt policies and regulations to and private sector investment  | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|--|---|--------------------|-------------------------------------|------------------|
| Intermediate<br>Outcome<br>Indicator 1.1 | Number of policies and regulations adopted by governments to support clean cooking market development                                 | 5                  | 6                                   | 30               |
| Intermediate<br>Outcome<br>Indicator 1.2 | Number of World Bank Group/MDBs investment projects catalyzed by the CCF  | 5                  | 6                                   | 30               |
| Intermediate<br>Outcome<br>Indicator 1.3 | Percentage of CCF-supported projects that have proactive actions to promote female employment/entrepreneurship and gender co-benefits | 100%               | 100%                                | 100%             |
| OUTPUTS                                  |   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 1                                 | Strategies, policies, regulations to support clean cooking  | 5                  | 13                                  | 40               |
| Output 2                                 | Joint activities by partners for global outreach or country-level program coordination  | 18                 | 38                                  | 30               |
| Output 3                                 | Innovative technology, business, and financing approaches, incorporating both women's and men's preferences and needs                 | 2                  | 2                                   | 20               |
| Output 4                                 | Own-managed knowledge products<br>(incl. RBF data platform) on clean<br>cooking with one global flagship report<br>every other year   | 7                  | 16                                  | 10               |

#### **ELECTRICITY ACCESS**

| • •                      | rs, Businesses, and Public<br>th Electricity Access  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24                                    | TARGET<br>FY2024   |
|--------------------------|--|--------------------------|--|--|
| Outcome<br>Indicator 1.1 | Population with new electricity access resulting from universal access strategies, programs, and plans, with specific electricity access targets by 2030, implementation schedules and financing plans | Not yet due<br>(ongoing) | 91 million<br>people; of<br>which, 51<br>million mini<br>grid/off-grid | 500 million<br>people, of<br>which mini<br>grid/off-grid:<br>300 million |

| Outcome<br>Indicator 1.2 | Households and/or micro and small enterprises and small-holder farmers with new electricity access through projects/programs funded through the World Bank, Governments, development partners and associated private sector investments (measured as targets in operations approved during the business plan period) | 31.4 million                | 51 million<br>people of<br>which 14.4<br>million mini<br>grid/off-grid    | 150 million<br>people, of<br>which mini<br>grid/off-grid:<br>90 million |
|--------------------------|--|-----------------------------|---|---|
| Outcome<br>Indicator 1.3 | Schools, health clinics, and other community facilities electrified through projects/programs funded through the World Bank, governments, development partners, and associated private sector investments (measured as targets in operations approved during the business plan period)                               | 138,233 public institutions | 173,232<br>public<br>institutions   | 1 million<br>public<br>institutions                                     |
| Outcome<br>Indicator 1.4 | Electricity access financing mobilized (through IDA, IBRD, climate finance, and associated government, development partner programs and private sector investments)  | \$4.7 billion               | \$9.6 billion,<br>of which<br>\$1.5 billion<br>represents<br>progress for | \$30 billion,<br>of which \$10<br>billion private<br>sector             |
|                          | private sector investments,  |                             | FY2021  |   |
|                          |  | PROGRESS<br>FY2022          | . •   | TARGET<br>FY2024  |
| <b>Countries with</b>    | OUTCOME 1: supportive enabling environment   |                             | FY2021  CUMULATIVE PROGRESS   |   |

| Intermediate<br>Outcome<br>Indicator 1.3 | Countries that have adopted and launched implementation of a scalable and sustainable model for electrification of public institutions, supported by ESMAP   | Not yet due<br>(ongoing) | 12                                  | 20               |
|--|--|--------------------------|-------------------------------------|------------------|
| Intermediate<br>Outcome<br>Indicator 1.4 | Countries that have adopted integrating electrification of displaced people, host, and other marginalized communities in electrification programs, with a focus on the needs of women and girls  | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 15               |
| Intermediate<br>Outcome<br>Indicator 1.5 | Countries that have adopted pro-poor energy access subsidy and delivery model approaches   | 4                        | 6                                   | 20               |
| Intermediate<br>Outcome<br>Indicator 1.6 | Percentage of IDA off-grid operations tackling women's entrepreneurship, and access to finance gaps  | 100%                     | 100%                                | 100%             |
| Intermediate<br>Outcome<br>Indicator 1.7 | Strategies adopted at the country level on closing productivity gaps between male and female farmers and business owners   | Not yet due<br>(ongoing) | Not yet due<br>(ongoing)            | 10               |
| OUTPUTS                                  |  | PROGRESS<br>FY2022       | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|  |  |                          |                                     |                  |
| Output 1                                 | National electrification strategies and plans, based on geospatial least-cost modeling, integrating grid, mini grid and off-grid technologies developed with ESMAP support, and using technical resources and support provided by ESMAP's geospatial electrification team  | 8                        | 27                                  | 30               |
|  | plans, based on geospatial least-cost<br>modeling, integrating grid, mini grid and<br>off-grid technologies developed with<br>ESMAP support, and using technical<br>resources and support provided by  |                          |                                     |                  |
| Output 1                                 | plans, based on geospatial least-cost modeling, integrating grid, mini grid and off-grid technologies developed with ESMAP support, and using technical resources and support provided by ESMAP's geospatial electrification team  Country-specific policy and regulatory frameworks, business models and/or financing instruments developed with ESMAP support for scaling up mini grid | 8                        | 27                                  | 30               |

| Output 5 | Sustainable business model for electrification of public institutions, leveraging private sector, developed, piloted and results documented                        | Not yet due<br>(ongoing) | Not yet due<br>(ongoing) | 3 |
|----------|--|--------------------------|--------------------------|---|
| Output 6 | Approaches for stimulating demand and productive use developed, piloted and results documented   | Not yet due<br>(ongoing) | Not yet due<br>(ongoing) | 3 |
| Output 7 | At least 6 global knowledge reports covering mini grids, off-grid solar, productive use, public institution electrification, subsidies, and other pertinent topics | 2                        | 3                        | 6 |
| Output 8 | At least 6 global knowledge events covering mini grids, off-grid solar, productive use, public institution electrification, subsidies, and other pertinent topics  | 2                        | 4                        | 6 |
| Output 9 | Delivery of one knowledge product or event related to gender by access program per year (duration of business plan)  | 1                        | 1                        | 4 |

#### **RENEWABLE ENERGY**

|   | Adopt Policies and Plans<br>ajor Scale-Up of RE   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|---|---|--------------------|-------------------------------------|------------------|
| Outcome<br>Indicator 1.1                                      | RE capacity additions under government policies and plans up to 2030, of which:   | 23 GW              | 47.2 GW                             | 60 GW            |
| 1.1.1: Offshore wind in government policies and plans to 2030 |   | 0 GW               | 0 GW                                | 20 GW            |
|   | Public and Private Investment lary Infrastructure   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Outcome<br>Indicator 2.1                                      | RE capacity commitments (direct and enabled through ancillary infrastructure and grid improvements) under World Bank Group financed projects, of which: | 5.4 GW             | 8.5 GW                              | 32.5 GW          |
|   | 2.1.1: Capacity commitments under<br>EnRen-supported financed projects  | 2.2 GW             | 4.2 GW                              | 20 GW            |
|   | 2.1.2: Innovative solar capacity commitments under financed projects  | 470.5 MW           | 506.6 MW                            | 3 GW             |

|   | 2.1.3: Hydropower capacity commitments under financed projects   | 1,040 MW           | 1,120 MW                            | 4.5 GW           |
|---|--|--------------------|-------------------------------------|------------------|
|   | 2.1.4: Offshore wind capacity commitments under financed projects  | 0 GW               | 0 GW                                | 5 GW             |
| Outcome<br>Indicator 2.2                            | Volume of financing mobilized for projects that increase RE capacity, of which:  | \$8 billion        | \$13.6 billion                      | \$25 billion     |
|   | 2.2.1: World Bank financing mobilized  | \$4.3 billion      | \$6.9 billion                       | \$3 billion      |
|   | 2.2.2: Private financing mobilized (includes co-financing from MDBs and DFIs)  | \$4 billion        | \$7 billion                         | \$22 billion     |
| Outcome<br>Indicator 2.3                            | Battery storage capacity commitments under financed projects   | 370.5 MWh          | 2.5 GWh                             | 15 GWh           |
|   | OUTCOME 1:<br>upporting RE scale-up in a wide<br>ies following the EnRen approach                                      | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 1.1            | Number of countries where there is a<br>World Bank engagement in increasing<br>the penetration of RE in generation mix | 7                  | 26                                  | 30               |
| Intermediate<br>Outcome<br>Indicator 1.2            | Number of countries where active<br>World Bank engagement on geothermal<br>power is newly established                  | 1                  | 1                                   | 3                |
| INTERMEDIATE<br>Countries have<br>in their policies | included innovative technologies   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Intermediate<br>Outcome<br>Indicator 2.1            | Number of countries where there is<br>World Bank Group engagement on<br>battery storage                                | 34                 | 48                                  | 40               |
| Intermediate<br>Outcome<br>Indicator 2.2            | Number of countries where there is<br>World Bank Group engagement on<br>innovative solar technologies                  | 4                  | 9                                   | 12               |
| Intermediate  | Number of countries where there is   | 0                  | 7                                   | 10               |
| Outcome<br>Indicator 2.3                            | World Bank Group engagement on offshore wind   |                    |                                     |                  |
| Indicator 2.3  INTERMEDIATE                         | offshore wind  OUTCOME 3: eveloping the next generation  | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |

|  | OUTCOME 4:<br>ps countries support socioeconomic<br>nd action on gender  | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|--|--|--------------------|-------------------------------------|------------------|
| Intermediate<br>Outcome<br>Indicator 4.1 | Number of countries where there is<br>World Bank Group engagement in<br>supporting development of roadmaps<br>including maximizing socioeconomic<br>benefits derived from RE development<br>with a focus on women's employment<br>and skills development | 6                  | 11                                  | 20               |
| OUTPUTS:<br>Energizing Rene              | ewables  | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
| Output 1                                 | Report: Sustainable deployment of solar (grid and off-grid) and wind projects (EnRen guidelines)   | 0                  | 0                                   | 1                |
| Output 2                                 | Events: Workshops to disseminate<br>the EnRen integrated approach and<br>promote the related support   | 1                  | 2                                   | 2                |
| Output 3                                 | Report: Lessons learnt from the Noor<br>Ouarzazate complex in Morocco<br>(lessons for EnRen approach)  | 0                  | 0                                   | 1                |
| Output 4                                 | Tool: Diagnostic tool to identify standardized solutions consistent with the EnRen methodology   | 0                  | 1                                   | 1                |
| Output 5                                 | Tool: E-tendering platform for standardized competitive procurement of RE projects   | 0                  | 0                                   | 1                |
| Output 6                                 | Report: Assessment of geothermal drilling costs  | 0                  | 0                                   | 1                |
| Output 7                                 | Training/Event: Gender in geothermal workshops   | 0                  | 0                                   | 1                |
| Output 8                                 | Report: Lesson learnt from cumulative environmental and social impacts from geothermal development in Turkey   | 0                  | 0                                   | 1                |
| Output 9                                 | Country/Regional Grants: Off-grid<br>and grid-connected planning studies,<br>deployment strategies, socioeconomic<br>studies, technical studies, capacity building   | 0                  | 20                                  | 50               |

| OUTPUTS:<br>Energy Storage |   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|----------------------------|---|--------------------|-------------------------------------|------------------|
| Output 10                  | Flagship Report: Lessons learned from<br>World Bank projects and pilot projects   | 0                  | 0                                   | 1                |
| Output 11                  | Reports: Outputs developed under the<br>Energy Storage Partnership  | 1                  | 4                                   | 1                |
| Output 12                  | Report: Social development framework and sustainable manufacturing practices for batteries  | 0                  | 0                                   | 1                |
| Output 13                  | Events: Convene exchanges under the Clean Energy Ministerial campaign on energy storage   | 0                  | 0                                   | 1                |
| Output 14                  | Training/Events: Technology-focused workshops and regional exchange events  | 3                  | 15                                  | 4                |
| Output 15                  | Country/regional grants: Upstream technical studies, strategy and roadmaps, downstream technical studies, preparation of testbeds/testing facilities, capacity building | 18                 | 27                                  | 60               |

| OUTPUTS:<br>Innovative Sol | ar   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024 |
|----------------------------|--|--------------------|-------------------------------------|------------------|
| Output 16                  | Report: Distributed solar PV in developing countries   | 0                  | 0                                   | 1                |
| Output 17                  | Report: Benefits of hybridization of hydropower with solar PV  | 0                  | 0                                   | 1                |
| Output 18                  | Report: Environmental and social considerations for offshore floating PV development (social considerations to include gender aspects)                   | 0                  | 0                                   | 1                |
| Output 19                  | Training/Events: Global knowledge sharing on innovative solar (as a part of EnRen workshops/consultations)   | 0                  | 0                                   | 1                |
| Output 20                  | Databases: Floating solar potential on existing hydropower reservoirs (geospatial database) and nearshore floating solar potential (geospatial database) | 0                  | 1                                   | 2                |

| Output 21                     | Country/Regional Grants: Country workshops, mapping and geospatial studies, technical studies, policy/ structuring studies  | 12                 | 15                                  | 20                    |
|-------------------------------|---|--------------------|-------------------------------------|-----------------------|
| OUTPUTS:<br>Offshore Wind     |   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024      |
| Output 22                     | Flagship Report: Key factors for successful development of offshore wind in emerging markets  | 0                  | 1                                   | 1                     |
| Output 23                     | Report: Environmental & Social framework for development of offshore wind   | 0                  | 0                                   | 1                     |
| Output 24                     | Maps and Data: Global technical potential mapping and analysis  | 0                  | 1                                   | 1                     |
| Output 25                     | Training/Event: Global seminar and knowledge sharing on offshore wind development   | 0                  | 1                                   | 1                     |
| Output 26                     | Country/Regional Grants: Country workshops, offshore wind roadmaps,   | 6                  | 8                                   | 16                    |
|                               | deployment strategies, downstream technical studies, capacity building  |                    |                                     |                       |
| OUTPUTS:<br>Hydropower De     |   | PROGRESS<br>FY2022 | CUMULATIVE<br>PROGRESS<br>FY2021-24 | TARGET<br>FY2024      |
|                               | technical studies, capacity building  |                    | PROGRESS                            |                       |
| Hydropower De                 | technical studies, capacity building  evelopment Facility  Report: Value chain analysis in  | FY2022             | PROGRESS<br>FY2021-24               | FY2024                |
| Output 27                     | technical studies, capacity building  evelopment Facility  Report: Value chain analysis in hydropower   | <b>FY2022</b> 0    | PROGRESS<br>FY2021-24<br>0          | 1                     |
| Output 27 Output 28           | technical studies, capacity building  evelopment Facility  Report: Value chain analysis in hydropower  Report: Private Sector Financing   | 0<br>0             | PROGRESS<br>FY2021-24<br>0          | 1<br>1                |
| Output 27 Output 28 Output 29 | technical studies, capacity building  evelopment Facility  Report: Value chain analysis in hydropower  Report: Private Sector Financing  Report: Gender & Hydropower  Training/Events: Global conferences | 0<br>0<br>0        | PROGRESS<br>FY2021-24<br>0          | 1<br>1<br>1           |
| Output 28 Output 29 Output 30 | Report: Value chain analysis in hydropower Report: Private Sector Financing Report: Gender & Hydropower  Training/Events: Global conferences and seminars  Database: Global compendium of                 | FY2022 0 0 0 0 0   | PROGRESS FY2021-24  0  0  1         | 1<br>1<br>1<br>1<br>2 |

#### ANNEX B

# ESMAP NEW, ONGOING, CLOSED AND PENDING ACTIVITIES, FY2022

The following information captures the reporting period of July 1, 2022 to June 30, 2023. The current and ongoing status of projects disbursements can be extracted from the Activities Dashboard at: <a href="https://esmap.org/activities">https://esmap.org/activities</a>

#### **Acronyms**

# ASA Advisory Services and Analytics BEA Bank-Executed Activity BETF Bank-Executed Trust Fund DPF Development Policy Financing PV Photovoltaics (solar) RETF Recipient-Executed Trust Fund

#### **Associated Trust Funds**

| AREP      | Advancing Regional Energy Projects (in Africa)       |
|-----------|--|
| ccus      | Carbon Capture, Utilization, and Storage             |
| ROGEP     | Support to Regional Off-Grid Electrification Project |
| SIDS DOCK | Support for Small Island Developing States           |

#### **Regions**

SAR

| AFR | Africa                          |
|-----|---------------------------------|
| EAP | East Asia and Pacific           |
| ECA | Europe and Central Asia         |
| LCR | Latin America and the Caribbean |
| MNA | Middle East and North Africa    |

South Asia Region

#### **New ESMAP Activities, FY2022**

| COUNTRY/<br>REGION | PROJECT# | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA | ESMAP PRIORITY   |
|--------------------|----------|-----------------|---|--|--|
| AFRICA EAST        |          |                 |   |  |  |
| Burundi            | P133610  | TF0B8729        | Renewable Energy-<br>Based Generation<br>and Transmission<br>Expansion in Burundi | 1) Renewable<br>Energy                       | 1.1) Energizing<br>Renewables  |
| Burundi            | P164435  | TF0B8569        | Scaling Up Access to<br>Decentralized Energy<br>Services in Burundi               | 1) Electricity Access                        | 1.1) Global Mini Grids<br>Facility, 1.2) Off-Grid<br>Solar, 1.3) Improve<br>Livelihoods and<br>Human Capital |

| COUNTRY/<br>REGION                | PROJECT# | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY   |
|-----------------------------------|----------|-----------------|--|---|--|
| Comoros                           | P175840  | TF0B6191        | Comoros:<br>Sustainable Power<br>for Health Facilities<br>(SIDS – RETF)  | 1) Small Island<br>Developing States<br>(SIDS)                        |  |
| Comoros                           | P175840  | TF0B6192        | Comoros: Sustainable<br>Power for Health<br>Facilities (RETF)  | 1) Accelerating<br>Decarbonization                                    | 1.1) Efficient and<br>Clean Cooling  |
| Eastern and<br>Southern<br>Africa | P165704  | TF0B7074        | Malawi: Preparation<br>of Options for<br>Financial Recovery<br>for Electricity Supply<br>Corporation of<br>Malawi, Ltd. (ESCOM)  | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants | 1.1) Energy Subsidy<br>Reform Facility                                       |
| Eastern and<br>Southern<br>Africa | P178319  | TF0B8405        | Advancing Regional<br>Energy Projects MDTF:<br>East African Power<br>Pool (EAPP) Regional<br>Power Market<br>Support, Phase 2  | 1) Foundations for<br>Energy Transition                               | 1.1) Energy Markets,<br>Connectivity and<br>Trade                            |
| Ethiopia                          | P173750  | TF0B6714        | Ethiopia: Strengthen<br>Climate Friendly Cold<br>Chain Infrastructure<br>Development for<br>Quality and Equitable<br>Deployment of<br>COVID-19 and Other<br>Vaccines in Ethiopia | 1) Accelerating<br>Decarbonization                                    | 1.1) Efficient and<br>Clean Cooling  |
| Ethiopia                          | P173750  | TF0B8531        | Energy Support<br>for the Delivery of<br>COVID-19 Vaccines<br>to Conflict Affected<br>Populations  | 1) Electricity Access   | 1.1) Leave No One<br>Behind  |
| Malawi                            | P175899  | TF0B7517        | Climate-friendly<br>and Sustainable<br>Energy Solutions for<br>Improving Access,<br>Quality, and Safety<br>of Essential Health<br>Services in Malawi                             | Electricity Access,     Accelerating     Decarbonization              | 1.1) Improve Livelihoods and Human Capital, 2.1) Efficient and Clean Cooling |

| COUNTRY/<br>REGION       | PROJECT# | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY  |
|--------------------------|----------|-----------------|---|--|---|
| Mozambique               | P175295  | TF0B7228        | Sustainable Energy<br>and Broadband<br>Access in Rural<br>Mozambique Project<br>(SPN allocation)      | 1) Clean Cooking<br>Fund   |   |
| Rwanda                   | P177429  | TF0B7406        | Supporting Energy<br>Access Expansion<br>and Clean Energy<br>Transition in Rwanda                     | 1) Electricity Access, 2) Foundations for Energy Transition, 3) Clean Cooking Fund           | 1.1) Off-Grid Solar, 1.2) Leave No One Behind, 1.3) Integrated Electrification Strategies and Planning, 1.4) Improve Livelihoods and Human Capital, 2.1) Utilities for the Energy Transition, 2.2) Energy Subsidy Reform Facility |
| Sao Tome<br>and Principe | P173783  | TF0B7973        | Sao Tome and<br>Principe: Climate-<br>friendly Health<br>System E-Mobility                            | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling   |
| Sao Tome<br>and Principe | P177099  | TF0B9035        | Electricity Supply<br>Transition Support<br>(BETF 2)  | 1) Electricity Access,<br>2) Renewable<br>Energy, 3)<br>Foundations for<br>Energy Transition | 1.1) Integrated Electrification Strategies and Planning, 2.1) Energizing Renewables, 2.2) Energy Storage, 3.1) Utilities for the Energy Transition  |
| Somalia                  | P172031  | TF0B7869        | Technical Support<br>for Health Facility<br>Cooling and Climate<br>Friendly Cold Chains<br>in Somalia | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling   |
| South Sudan              | P176480  | TF0B6004        | South Sudan COVID<br>-19 Emergency<br>Response and<br>Health Systems<br>Preparedness Project          | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling   |

| COUNTRY/<br>REGION | PROJECT# | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA | ESMAP PRIORITY                                   |
|--------------------|----------|-----------------|--|--|--|
| South Sudan        | P176480  | TF0B7442        | Strengthening Energy-<br>Efficient, Climate<br>Friendly Cold Chain in<br>South Sudan (BETF)          | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling              |
| Sudan              | P174352  | TF0B5920        | Climate Friendly Cold<br>Chain in Sudan  | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling              |
| Sudan              | P174352  | TF0B7441        | Climate Friendly Cold<br>Chain in Sudan (BETF)   | 1) Accelerating Decarbonization              | 1.1) Efficient and<br>Clean Cooling              |
| Tanzania           | P153781  | TF0B8158        | Tanzania: Support<br>for Renewable<br>Energy Development   | 1) Renewable<br>Energy                       | 1.1) Energizing<br>Renewables                    |
| Tanzania           | P163732  | TF0B8204        | Leveraging Private<br>Sector Financing for<br>Rural Water Supply<br>in Tanzania (BETF 2)             | 1) Electricity Access                        | 1.1) Improve<br>Livelihoods and<br>Human Capital |
| Tanzania           | P163732  | TF0B8224        | Leveraging Private<br>Sector Financing for<br>Rural Water Supply<br>in Tanzania (BETF 1)             | 1) Electricity Access                        | 1.1) Improve<br>Livelihoods and<br>Human Capital |
| Zambia             | P174185  | TF0B9085        | Roadmap to Climate<br>Friendly Cold Chain<br>in Zambia   | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling              |
| Zimbabwe           | P176141  | TF0B6709        | Zimbabwe: COVID-19<br>Emergency Response<br>Project  | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling              |
| Zimbabwe           | P176141  | TF0B7412        | Energy Efficient Cold<br>Chain Equipment for<br>COVID-19 Vaccine<br>Deployment in<br>Zimbabwe (BETF) | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling              |
| AFRICA WEST        |          |                 |  |  |  |
| Cabo Verde         | P173857  | TF0B8709        | A Roadmap to<br>Upgrade Public<br>Health Infrastructure<br>in Cabo Verde                             | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling              |

| COUNTRY/<br>REGION    | PROJECT# | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA  | ESMAP PRIORITY  |
|-----------------------|----------|-----------------|--|---|---|
| Congo,<br>Republic of | P178614  | TF0B8078        | Energy Sector<br>Diagnosis for the<br>Republic of the<br>Congo                             | 1) Annual Block<br>Grants   |   |
| Ghana                 | P173258  | TF0B8585        | Ghana: Energy Sector<br>Recovery Program<br>for Results                                    | 1) Renewable Energy, 2) Foundations for Energy Transition, 3) Annual Block Grants               | 1.1) Energizing<br>Renewables, 2.1)<br>Utilities for the Energy<br>Transition                           |
| Liberia               | P173416  | TF0B5153        | Electrification of<br>Health and Vaccine<br>Storage Facilities in<br>Liberia               | 1) Electricity Access   | 1.1) Improve<br>Livelihoods and<br>Human Capital  |
| Liberia               | P176686  | TF0B8524        | Liberia: Energy<br>Sector Programmatic<br>Advisory Services<br>and Analytics               | 1) Electricity Access,<br>2) Foundations for<br>Energy Transition,<br>3) Annual Block<br>Grants | 1.1) Global Mini Grids<br>Facility, 1.2) Off-Grid<br>Solar, 2.1) Utilities for<br>the Energy Transition |
| Mali                  | P167850  | TF0B7059        | Mauritania: High<br>Level Energy Sector<br>Strategy  | 1) Annual Block<br>Grants   |   |
| Mali                  | P167850  | TF0B8978        | Low-Carbon Least Cost Development Plan for Power Generation and Transmission in Mauritania | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables   |
| Niger                 | P173846  | TF0B5944        | Additional Financing<br>to Niger COVID-19<br>Emergency Response<br>Project                 | 1) Accelerating<br>Decarbonization  | 1.1) Efficient and<br>Clean Cooling   |
| Niger                 | P173846  | TF0B6955        | Energy Efficient Cold<br>Chain Equipment for<br>Vaccine Deployment<br>in Niger             | 1) Accelerating<br>Decarbonization  | 1.1) Efficient and<br>Clean Cooling   |

| COUNTRY/<br>REGION               | PROJECT #        | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY                                    |
|----------------------------------|------------------|-----------------|--|---|---|
| Nigeria                          | IFC-<br>00606757 | TF0B8131        | Nigeria: Industrial<br>Carbon Capture,<br>Utilization, and<br>Storage (CCUS)<br>Atlas and National<br>Strategy | 1) Carbon Capture<br>& Storage (CCUS)                                 |   |
| Nigeria                          | P174760          | TF0B8337        | Nigeria: Hydropower<br>Support<br>Under Energy<br>Programmatic (ASA)   | 1) Renewable<br>Energy  | 1.1) Hydropower<br>Development Facility           |
| Western<br>and Central<br>Africa | P160708          | TF0B7053        | Implementation<br>Support of the<br>ROGEP (RETF)   | 1) Regional Off-Grid<br>Electrification<br>Project (ROGEP)            |   |
| Western<br>and Central<br>Africa | P171439          | TF0B7293        | Supporting Preparation and Implementation of the West Africa Regional Energy Trade (DPF 2)                     | 1) Annual Block<br>Grants, 2)<br>Foundations for<br>Energy Transition | 2.1) Energy Markets,<br>Connectivity and<br>Trade |
| Cambodia                         | P176906          | TF0B7751        | Enhancing<br>the Enabling<br>Environment in<br>Energy Policy and<br>Energy Access in<br>Cambodia               | 1) Annual Block<br>Grants   |   |
| East Asia and<br>Pacific         | P177280          | TF0B7997        | EAP Gender and<br>Energy Facility II   | 1) Foundations for<br>Energy Transition                               | 1.1) Closing Gender<br>Gaps in Energy             |
| Mekong                           | IFC-<br>00603211 | TF0B7639        | Industrial<br>Decarbonization in<br>Vietnam  | 1) Accelerating<br>Decarbonization                                    | 1.1) Industrial<br>Decarbonization                |
| EUROPE & CEN                     | NTRAL ASIA       |                 |  |   |   |
| Caucasus                         | P174666          | TF0B8283        | Armenia: Clean<br>Energy Engagement  | 1) Renewable<br>Energy, 2) Annual<br>Block Grants                     | 1.1) Energy Storage,<br>1.2) Innovative Solar     |
| Central Asia                     | P178748          | TF0B8668        | Scaling-up<br>Regional Energy<br>Interconnectivity in<br>Central Asia  | 1) Foundations for<br>Energy Transition                               | 1.1) Energy Markets,<br>Connectivity and<br>Trade |

| COUNTRY/<br>REGION         | PROJECT# | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                  | ESMAP PRIORITY  |
|----------------------------|----------|-----------------|---|---|---|
| Europe and<br>Central Asia | P177744  | TF0B7462        | Support of Country Climate and Development Reports: Assessment of Pathways for Energy Sector Decarbonization in ECA | 1) Annual Block<br>Grants                                     |   |
| Europe and<br>Central Asia | P177744  | TF0B7824        | ECA Sustainable Heating Program – Regional: Accelerating Decarbonization II   | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants | 1.1) Zero Carbon<br>Public Sector, 1.2)<br>Geothermal Direct<br>Use |
| Kyrgyz<br>Republic         | P174466  | TF0B8755        | Kyrgyz Republic:<br>Renewable Energy<br>Sector Development<br>Program   | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables                                       |
| Moldova                    | P160829  | TF0B8602        | Moldova:<br>Regional Power<br>Interconnection<br>Option Study   | 1) Foundations for<br>Energy Transition                       | 1.1) Energy Markets,<br>Connectivity and<br>Trade                   |
| Tajikistan                 | P168211  | TF0B8118        | Review of Technical,<br>Environmental<br>and Social, and<br>Commercial<br>Aspects of Rogun<br>Hydropower Project    | 1) Renewable<br>Energy  | 1.1) Hydropower<br>Development Facility                             |
| Tajikistan                 | P170132  | TF0B8832        | Identification of<br>Prospective Wind<br>Sites in Tajikistan  | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables                                       |
| Türkiye                    | P151739  | TF0B7276        | Türkiye: Feasibility<br>Assessments for<br>Geothermal Direct<br>Use Applications                                    | 1) Accelerating<br>Decarbonization                            | 1.1) Geothermal<br>Direct Use                                       |
| Türkiye                    | P173157  | TF0B7518        | Support for the<br>Preparation of<br>Türkiye's Second<br>National Energy<br>Efficiency Action Plan                  | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants | 1.1) Zero Carbon<br>Public Sector                                   |

| COUNTRY/<br>REGION | PROJECT#         | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA | ESMAP PRIORITY  |
|--------------------|------------------|-----------------|--|--|---|
| Türkiye            | P177079          | TF0B6268        | Türkiye: E-Mobility<br>Program   | 1) Accelerating<br>Decarbonization           | 1.1) Zero Carbon<br>Public Sector                                   |
| Western<br>Balkans | P169389          | TF0B6619        | ECA Sustainable Heating Program – Regional: Accelerating Decarbonization   | 1) Accelerating<br>Decarbonization           | 1.1) Zero Carbon<br>Public Sector, 1.2)<br>Geothermal Direct<br>Use |
| GLOBAL             |                  |                 |  |  |   |
| Global             | IFC-<br>00603829 | TF0B7756        | IFC Decarbonization<br>Advisory and<br>Investment<br>Transaction-Linked<br>Support for the<br>Industrial Sectors, II | 1) Accelerating<br>Decarbonization           | 1.1) Industrial<br>Decarbonization                                  |
| Global             | IFC-<br>00603979 | TF0B7803        | IFC Decarbonization<br>Advisory and<br>Investment<br>Transaction-Linked<br>Support for the<br>Industrial Sectors, I  | 1) Accelerating<br>Decarbonization           | 1.1) Industrial<br>Decarbonization                                  |
| Global             | IFC-<br>00606560 | TF0B8159        | Technical and Economic Assessment of Investment Opportunities in Green Hydrogen                                      | 1) Accelerating<br>Decarbonization           | 1.1) Industrial<br>Decarbonization                                  |
| Global             | IFC-<br>00606704 | TF0B7381        | Technical and Economic Assessment of Investment Opportunities in Green Hydrogen                                      | 1) Accelerating<br>Decarbonization           | 1.1) Industrial<br>Decarbonization                                  |
| Global             | P171194          | TF0B7015        | India: Developing a<br>Coal Mine Closure<br>Framework,<br>Achieving a Just<br>Transition for All                     | 1) Foundations for<br>Energy Transition      | 1.1) Supporting Coal<br>Regions in Transition                       |

| COUNTRY/<br>REGION | PROJECT #    | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA | ESMAP PRIORITY   |
|--------------------|--------------|-----------------|--|--|--|
| Global             | P174361      | TF0B8021        | Electricity Access<br>Program Supervision  | 1) Electricity Access                        | 1.1) Integrated<br>Electrification<br>Strategies and<br>Planning                       |
| Global             | P175657      | TF0B5769        | COVID-19 Energy<br>Access Relief Fund  | 1) Electricity Access                        | 1.1) Off-Grid Solar  |
| Global             | P176641      | TF0B8410        | Global: Sustainable<br>Performance<br>Tracking Framework<br>for Power Utilities  | 1) Foundations for<br>Energy Transition      | 1.1) Utilities for the<br>Energy Transition,<br>1.2) Energy Subsidy<br>Reform Facility |
| Global             | P177102      | TF0B7292        | Improving Private<br>Solutions in<br>Hydropower Projects   | 1) Renewable<br>Energy                       | 1.1) Hydropower<br>Development Facility  |
| Global             | P178069      | TF0B8202        | Supporting the Development of Sustainable Hydropower Projects and Operations   | 1) Renewable<br>Energy                       | 1.1) Hydropower<br>Development Facility  |
| LATIN AMERIC       | CA & CARIBBE | AN              |  |  |  |
| Argentina          | P176905      | TF0B8126        | Energy Efficient Cold<br>Chain for the Agro-<br>Industrial System in<br>Argentina  | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling  |
| Central<br>America | P178163      | TF0B8047        | Supporting the<br>Energy Transition<br>in Central America<br>through Energy<br>Subsidy Reforms   | 1) Foundations for<br>Energy Transition      | 1.1) Energy Subsidy<br>Reform Facility   |
| Central<br>America | P178163      | TF0B8154        | Defining Commercial<br>Conditions for the<br>Deployment of and<br>Private Investments<br>in Storage Solutions<br>in the Dominican<br>Republic, Costa Rica,<br>El Salvador, and<br>Panama | 1) Renewable<br>Energy                       | 1.1) Energy Storage  |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                  | ESMAP PRIORITY                      |
|--------------------|-----------|-----------------|---|---|-------------------------------------|
| Central<br>America | P178163   | TF0B8194        | Defining Commercial<br>Conditions for the<br>Deployment of and<br>Private Investments<br>in Storage Solutions<br>in the Dominican<br>Republic, Costa Rica, El<br>Salvador, and Panama | 1) Small Island<br>Developing States<br>(SIDS)                |                                     |
| Central<br>America | P178163   | TF0B8307        | Facilitating<br>Investments in<br>Geothermal Direct<br>Use in El Salvador<br>and Costa Rica   | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants | 1.1) Geothermal<br>Direct Use       |
| Central<br>America | P178163   | TF0B8411        | Strategy And<br>Roadmap for<br>Green Hydrogen<br>Development in<br>Costa Rica   | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants | 1.1) Green Hydrogen                 |
| Central<br>America | P178163   | TF0B8623        | Enabling<br>Environment for an<br>Energy Efficiency<br>Fund in Costa Rica<br>and El Salvador, 2   | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants | 1.1) Zero Carbon<br>Public Sector   |
| Central<br>America | P178163   | TF0B8678        | Analysis of OECD<br>Recommendations<br>for Improved<br>Performance of Costa<br>Rica's Power Sector  | 1) Annual Block<br>Grants                                     |                                     |
| Central<br>America | P178163   | TF0B8827        | Mobilizing Private Finance to Accelerate the Deployment of Clean and Efficient Cooling Solutions in Panama, 2   | 1) Accelerating<br>Decarbonization                            | 1.1) Efficient and<br>Clean Cooling |
| Colombia           | P172319   | TF0B6858        | Supporting 2nd Phase Pilot in Bogota for Green Solar- Powered Last-Mile Urban Freight Delivery Services   | 1) Renewable<br>Energy  | 1.1) Innovative Solar               |

| COUNTRY/<br>REGION | PROJECT #   | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA  | ESMAP PRIORITY   |
|--------------------|-------------|-----------------|---|---|--|
| Guatemala          | P173480     | TF0B7984        | Energy Efficient<br>Cold-Chains for<br>Agriculture in<br>Guatemala  | 1) Accelerating<br>Decarbonization  | 1.1) Efficient and<br>Clean Cooling  |
| Haiti              | P177503     | TF0B7244        | Programmatic ASA for Haiti: Electricity Access and Sustainable, Resilient, and Inclusive Development of the Energy Sector | 1) Electricity Access, 2) Energy Data & Analytics, 3) Foundations for Energy Transition, 4) Annual Block Grants | 1.1) Integrated Electrification Strategies and Planning, 1.2) Global Mini Grids Facility, 1.3) Improve Livelihoods and Human Capital, 2.1) Multi-tier Energy Access Tracking Framework (MTF) (including data on clean cooking and displaced communities), 3.1) Utilities for the Energy Transition |
| MIDDLE EAST        | & NORTH AFR | RICA            |   |   |  |
| Lebanon            | P166937     | TF0B8611        | Lebanon<br>Transmission System<br>Planning  | 1) Annual Block<br>Grants   |  |
| Morocco            | P177376     | TF0B8112        | Fostering Decarbonization of Industrial Zones in Morocco  | 1) Accelerating<br>Decarbonization  | 1.1) Industrial<br>Decarbonization   |
| Tunisia            | P167211     | TF0B7291        | Tunisia Dispatchable<br>Solar Power   | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables  |
| SOUTH ASIA         |             |                 |   |   |  |
| Bhutan             | P174327     | TF0B8049        | Sustainable<br>Hydropower<br>Development Project  | 1) Renewable<br>Energy  | 1.1) Hydropower<br>Development Facility  |
| Bhutan             | P174327     | TF0B8144        | Sustainable<br>Hydropower<br>Development Project  | 1) Annual Block<br>Grants   |  |

| COUNTRY/<br>REGION | PROJECT #        | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY  |
|--------------------|------------------|-----------------|---|---|---|
| India              | P168590          | TF0B7919        | Mainstreaming<br>Building Energy<br>Efficiency and Climate<br>Resilience Agenda in<br>Tamil Nadu        | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector   |
| India              | P170602          | TF0B8918        | Catalyzing<br>Scalable Industrial<br>Decarbonization<br>Technologies in India                           | 1) Accelerating<br>Decarbonization                                    | 1.1) Industrial<br>Decarbonization  |
| India              | P174798          | TF0B7294        | Improving Energy-<br>Efficiency in Fish<br>Cooling Value-Chain<br>in South Asia, with<br>Focus on India | 1) Accelerating<br>Decarbonization                                    | 1.1) Efficient and<br>Clean Cooling   |
| India              | P178053          | TF0B8741        | Uttar Pradesh Clean<br>Air Management<br>Project: Clean<br>Cookstove Program                            | 1) Clean Cooking<br>Fund  |   |
| Nepal              | P171183          | TF0B7870        | Nepal: Clean Cooking<br>Study   | 1) Clean Cooking<br>Fund  |   |
| Pakistan           | IFC-<br>00603641 | TF0B7466        | Industrial<br>Decarbonization in<br>Pakistan  | 1) Accelerating<br>Decarbonization                                    | 1.1) Industrial<br>Decarbonization  |
| Pakistan           | P169313          | TF0B8125        | Pakistan: Electricity<br>Subsidy Reform   | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants | 1.1) Energy Subsidy<br>Reform Facility  |
| Pakistan           | P169313          | TF0B8180        | Industrial<br>Decarbonization<br>Study  | 1) Annual Block<br>Grants   |   |
| Pakistan           | P170230          | TF0B6930        | Technical Assistance<br>for Transition to<br>Wholesale Electricity<br>Market                            | 1) Annual Block<br>Grants   |   |
| South Asia         | P173928          | TF0B6500        | South Asia Gender<br>and Energy Facility<br>II – ESMAP  | 1) Foundations for<br>Energy Transition                               | 1.1) Utilities for the<br>Energy Transition, 1.2)<br>Closing Gender Gaps<br>in Energy |

#### Ongoing ESMAP Activities, FY2022

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY                          |
|--------------------|-----------|-----------------|--|---|---|
| AFRICA             |           |                 |  |   |   |
| Africa             | P126661   | TF0A4769        | Advancing Regional<br>Energy Projects<br>MDTF: Supervision   | 1) Advancing<br>Regional Energy<br>Projects (AREP)                    |   |
| Africa             | P126661   | TF0A4770        | Advancing Regional<br>Energy Projects MDTF:<br>East Africa Power Pool<br>(EAPP) Assistance<br>Program (BEA)    | 1) Advancing<br>Regional Energy<br>Projects (AREP)                    |   |
| Africa             | P126661   | TF0A4771        | Advancing Regional<br>Energy Projects MDTF:<br>South Africa Power<br>Pool (SAPP) Assistance<br>Program (BEA)   | 1) Advancing<br>Regional Energy<br>Projects (AREP)                    |   |
| Africa             | P172323   | TF0B2304        | Facilitating Energy<br>Efficiency in Sub-<br>Saharan Africa  | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector       |
| AFRICA EAST        |           |                 |  |   |   |
| Burundi            | P133610   | TF0B2281        | Burundi: Preparation<br>of a Subsidy<br>Reduction Trajectory<br>and Financial<br>Recovery Plan for<br>REGIDESO | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants | 1.1) Energy Subsidy<br>Reform Facility  |
| Burundi            | P133610   | TF0B5426        | Legal, Technical, and<br>Safeguard Review<br>Support for Ruzizi III<br>Hydropower Project<br>Preparation       | 1) Renewable<br>Energy  | 1.1) Hydropower<br>Development Facility |
| Burundi            | P164435   | TF0B1868        | Sustainable, Efficient<br>and Clean Cooking in<br>Burundi  | 1) Clean Cooking<br>Fund  |   |
| Comoros            | P162783   | TF0B3588        | Comoros Solar PV<br>& Battery Energy<br>Storage Systems  | 1) Small Island<br>Developing States<br>(SIDS)                        |   |
|                    |           |                 |  |   |   |

| COUNTRY/<br>REGION                  | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY   |
|-------------------------------------|-----------|-----------------|--|--|--|
| Comoros                             | P175840   | TF0B6129        | Comoros:<br>Sustainable power<br>for health facilities<br>(BETF) | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling  |
| Congo,<br>Democratic<br>Republic of | P173506   | TF0B6006        | Programmatic Support to the Power Sector in the DRC              | 1) Electricity Access, 2) Renewable Energy, 3) Foundations for Energy Transition, 4) Annual Block Grants | 1.1) Global Mini Grids Facility, 1.2) Improve Livelihoods and Human Capital, 2.1) Energizing Renewables, 3.1) Utilities for the Energy Transition, 3.2) Energy Markets, Connectivity and Trade |
| Eastern<br>Africa                   | P075941   | TF0B1772        | Rusumo Falls<br>Implementation<br>Support: Tunneling<br>Works    | 1) Renewable<br>Energy   | 1.1) Hydropower<br>Development Facility  |
| Eastern and<br>Southern<br>Africa   | P126661   | TF0B2010        | Decarbonizing<br>with Dispatchable<br>Renewable Energy           | 1) Renewable<br>Energy   | 1.1) Energizing<br>Renewables, 1.2)<br>Energy Storage  |
| Eastern and<br>Southern<br>Africa   | P146987   | TF0A8482        | Lighting Africa<br>((Phase II)                                   | Electricity Access,     Accelerating     Decarbonization   | 1.1) Off-Grid Solar,<br>2.1) Efficient and<br>Clean Cooling  |
| Eastern and<br>Southern<br>Africa   | P149119   | TF0A4725        | AFREA 2: Gender and<br>Energy Program                            | 1) Annual Block<br>Grants, 2)<br>Foundations for<br>Energy Transition                                    | 2.1) Closing Gender<br>Gaps in Energy  |
| Eastern and<br>Southern<br>Africa   | P162806   | TF0A4508        | Solar Resource<br>Mapping: East Africa                           | 1) Energy Data &<br>Analytics  | 1.1) Energy Data Hub   |
| Eastern and<br>Southern<br>Africa   | P165617   | TF0A6192        | Africa Regional<br>Geospatial Planning<br>Support                | 1) Electricity Access,<br>2) Annual Block<br>Grants  | 1.1) Integrated Electrification Strategies and Planning, 1.2) Global Mini Grids Facility   |

| COUNTRY/<br>REGION                | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA  | ESMAP PRIORITY   |
|-----------------------------------|-----------|-----------------|--|---|--|
| Eastern and<br>Southern<br>Africa | P173217   | TF0B2333        | Energy Leap (AFRICA)   | 1) Electricity Access,<br>2) Clean Cooking<br>Fund  | 1.1) Integrated Electrification Strategies and Planning, 1.2) Leave No One Behind, 1.3) Off-Grid Solar, 1.4) Global Mini Grids Facility  |
| Eastern and<br>Southern<br>Africa | P174175   | TF0B4111        | Horn of Africa<br>Initiative Rapid<br>Support for Regional<br>Integration  | 1) Electricity Access,<br>2) Clean Cooking<br>Fund, 3) Annual<br>Block Grants, 4)<br>Foundations for<br>Energy Transition | 1.1) Integrated Electrification Strategies and Planning, 1.2) Off-Grid Solar, 1.3) Improve Livelihoods and Human Capital, 1.4) Global Mini Grids Facility, 1.5) Leave No One Behind, 4.1) Energy Markets, Connectivity and Trade |
| Eastern and<br>Southern<br>Africa | P176468   | TF0B5851        | Utility Performance<br>and Behavior<br>in Africa Today<br>(UPBEAT):<br>Maintaining and<br>Updating Continental<br>Utility Data<br>Platform to Support<br>Improvements in<br>Utilities' Performance | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants   | 1.1) Utilities for the<br>Energy Transition,<br>1.2) Energy Markets,<br>Connectivity and<br>Trade, 1.3) Energy<br>Subsidy Reform<br>Facility   |
| Ethiopia                          | P171742   | TF0B2013        | Supporting Improved<br>Service Delivery<br>for Universal<br>Electrification  | 1) Electricity Access   | 1.1) Integrated Electrification Strategies and Planning, 1.2) Financial Innovation for Energy Access, 1.3) Global Mini Grids Facility, 1.4) Improve Livelihoods and Human Capital  |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                  | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|--|---|---|
| Kenya              | P173040   | TF0B1666        | Renewable Energy<br>Development<br>and Institutional<br>Development in<br>Kenya                                    | 1) Renewable<br>Energy, 2) Annual<br>Block Grants             | 1.1) Energy Storage,<br>1.2) Energizing<br>Renewables   |
| Kenya              | P173040   | TF0B5094        | Options Analysis<br>for Promoting<br>Productive Use<br>of Electricity and<br>Demand stimulation<br>in Kenya        | Electricity Access,     Foundations for     Energy Transition | 1.1) Improve Livelihoods and Human Capital, 1.2) Financial Innovation for Energy Access, 2.1) Utilities for the Energy Transition |
| Malawi             | P168577   | TF0B3629        | Clean and Energy<br>Efficient Cooling<br>interventions for<br>Micro, Small, and<br>Medium Enterprises<br>in Malawi | 1) Accelerating<br>Decarbonization                            | 1.1) Efficient and<br>Clean Cooling   |
| Namibia            | P171529   | TF0B2597        | Namibia National<br>Electrification<br>Program   | 1) Electricity Access   | 1.1) Integrated<br>Electrification<br>Strategies and<br>Planning, 1.2) Global<br>Mini Grids Facility                              |
| Rwanda             | P164520   | TF0B3655        | Rwanda: Energy<br>Efficient Cold Storage<br>for Agriculture  | 1) Accelerating<br>Decarbonization, 2)<br>Electricity Access  | 1.1) Efficient and<br>Clean Cooling, 2.1)<br>Improve Livelihoods<br>and Human Capital   |
| Rwanda             | P171671   | TF0B3333        | Rwanda: Inclusive<br>and Electric Last Mile<br>Connectivity (ESMAP)  | 1) Accelerating<br>Decarbonization                            | 1.1) Zero Carbon<br>Public Sector   |
| Rwanda             | P172594   | TF0B3589        | Energy Access and<br>Quality Improvement<br>Project  | 1) Clean Cooking<br>Fund                                      |   |
| Rwanda             | P172594   | TF0B4625        | Implementation Support for Rwanda Energy Access and Quality Improvement Project (EAQIP)                            | 1) Clean Cooking<br>Fund                                      |   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                                       | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|--|--|---|
| South Africa       | P149521   | TF0A3137        | Development of<br>Carbon Capture and<br>Storage in South<br>Africa   | 1) Carbon Capture<br>& Storage (CCUS)  |   |
| South Africa       | P151193   | TF019231        | Capacity Building<br>for Carbon Capture<br>and Storage in South<br>Africa  | 1) Carbon Capture<br>& Storage (CCUS)  |   |
| South Sudan        | P175227   | TF0B4320        | Pathways to Electricity Access Expansion in South Sudan  | 1) Electricity Access,<br>2) Annual Block<br>Grants, 3) Energy<br>Data & Analytics | 1.1) Integrated Electrification Strategies and Planning, 1.2) Global Mini Grids Facility, 1.3) Off-Grid Solar, 1.4) Improve Livelihoods and Human Capital, 3.1) Multi-tier Energy Access Tracking Framework (MTF) (including data on clean cooking and displaced communities) |
| Southern<br>Africa | P126661   | TF0A4772        | Additional Financing<br>for Advancing<br>Regional Energy<br>Projects in Southern<br>Africa Multi-Donor<br>Trust Fund (SAPP<br>AREP AF) | 1) Advancing<br>Regional Energy<br>Projects (AREP)                                 |   |
| Southern<br>Africa | P126661   | TF0B5574        | Renewable Energy<br>for Building Energy<br>Livelihoods   | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization                      | 1.1) Energizing<br>Renewables, 2.1)<br>Green Hydrogen   |
| Tanzania           | P165128   | TF0A8813        | Tanzania: Promoting Energy Efficiency in Service Delivery and Infrastructure Investments in Zanzibar                                   | 1) Accelerating<br>Decarbonization   | 1.1) Zero Carbon<br>Public Sector   |

| COUNTRY/    |           | TRUST    |   | ESMAP THEMATIC AND CROSS-  |  |
|-------------|-----------|----------|---|--|--|
| REGION      | PROJECT # | FUND#    | PROJECT NAME  | CUTTING AREA   | ESMAP PRIORITY   |
| Uganda      | P166685   | TF0B5204 | Uganda: Electricity<br>Access Scale-up<br>Project (EASP)  | 1) Clean Cooking<br>Fund   |  |
| Zambia      | P170796   | TF0B3121 | Energy Sector Programmatic Advisory Services and Analytics (PASA) for Zambia                              | 1) Annual Block<br>Grants, 2)<br>Electricity Access,<br>3) Foundations for<br>Energy Transition,<br>4) Clean Cooking<br>Fund | 2.1) Integrated Electrification Strategies and Planning, 3.1) Energy Subsidy Reform Facility                       |
| Zimbabwe    | P170960   | TF0B0712 | Planning Support<br>and Capacity<br>Building for Power<br>Sector Recovery in<br>Zimbabwe                  | 1) Electricity Access,<br>2) Renewable<br>Energy, 3) Annual<br>Block Grants  | 1.1) Integrated Electrification Strategies and Planning, 2.1) Energizing Renewables                                |
| Zimbabwe    | P170960   | TF0B2752 | Zimbabwe: Support<br>for Solar Program<br>Development and<br>Coal Transition                              | 1) Renewable<br>Energy   | 1.1) Energizing<br>Renewables  |
| AFRICA WEST |           |          |   |  |  |
| Benin       | P173749   | TF0B2708 | Preparation for<br>Electricity Access<br>Scale-Up in Benin  | 1) Annual Block<br>Grants  |  |
| Benin       | P173749   | TF0B5839 | Multi-tier Energy<br>Access Tracking<br>Framework (MTF)<br>Energy Access<br>Diagnostic Study for<br>Benin | 1) Annual Block<br>Grants, 2) Energy<br>Data & Analytics   | 2.1) Multi-tier Energy Access Tracking Framework (MTF) (including data on clean cooking and displaced communities) |
| Cabo Verde  | P170236   | TF0B5152 | Assessment of<br>Battery Storage<br>Potential in Cabo<br>Verde  | 1) Renewable<br>Energy   | 1.1) Energy Storage  |
| Cameroon    | P174960   | TF0B0855 | Cameroon: Energy<br>Subsidy Reform  | 1) Foundations for<br>Energy Transition  | 1.1) Energy Subsidy<br>Reform Facility   |

| COUNTRY/<br>REGION             | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA  | ESMAP PRIORITY  |
|--------------------------------|-----------|-----------------|--|---|---|
| Cameroon                       | P174960   | TF0B5787        | Institutions<br>and Capacity<br>Strengthening for<br>Regional Power<br>Trade                                 | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants               | 1.1) Energy Markets,<br>Connectivity and<br>Trade   |
| Central<br>African<br>Republic | P164885   | TF0B2371        | Support for the<br>Promotion and<br>Implementation of<br>Solar PV Projects<br>in Central African<br>Republic | 1) Electricity Access,<br>2) Renewable<br>Energy, 3) Annual<br>Block Grants         | 1.1) Global Mini Grids Facility, 1.2) Improve Livelihoods and Human Capital, 1.3) Off-Grid Solar, 2.1) Energizing Renewables, 2.2) Hydropower Development Facility, 2.3) Energy Storage |
| Chad                           | P174985   | TF0B4457        | Supporting Reform<br>and Investment<br>to Expand Access<br>to Affordable and<br>Financially Viable<br>Energy | 1) Electricity Access, 2) Foundations for Energy Transition, 3) Annual Block Grants | 1.1) Global Mini Grids Facility, 1.2) Off-Grid Solar, 2.1) Energy Markets, Connectivity and Trade, 2.2) Energy Subsidy Reform Facility  |
| Gambia, The                    | P163568   | TF0B3700        | Energy Efficiency<br>Strategy for The<br>Gambia (ESMAP /<br>PPIAF)   | 1) Accelerating<br>Decarbonization  | 1.1) Zero Carbon Public Sector, 1.2) Efficient and Clean Cooling  |
| Ghana                          | P163984   | TF0B0723        | Ghana: Energy Sector<br>Subsidy Reform<br>Program  | 1) Foundations for<br>Energy Transition   | 1.1) Energy Subsidy<br>Reform Facility  |
| Ghana                          | P173258   | TF0B3078        | Ghana: Clean<br>Cooking Program<br>Technical Assistance  | 1) Clean Cooking<br>Fund  |   |
| Guinea                         | P164225   | TF0B5946        | Methodology for<br>the Calculation<br>of Revenue<br>Requirement for<br>Electricité de Guinée                 | 1) Annual Block<br>Grants   |   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|---|--|---|
| Liberia            | P173416   | TF0B5145        | Electrification of<br>Health and Vaccine<br>Storage Facilities in<br>Liberia  | 1) Electricity Access  | 1.1) Improve<br>Livelihoods and<br>Human Capital  |
| Mali               | P166796   | TF0B2703        | Mali: DPF Preparation ASA - Assessment of the Performance Contract of Energie du Mali (EDM) and Efficiency Measures to Reduce Costs | 1) Renewable<br>Energy, 2) Annual<br>Block Grants  | 1.1) Energizing<br>Renewables, 1.2)<br>Energy Storage   |
| Mali               | P167850   | TF0A9351        | Accelerate Access<br>to Electricity<br>and Increase of<br>Renewable Energies<br>in the Sahel Region                                 | 1) Electricity Access,<br>2) Annual Block<br>Grants  | 1.1) Integrated<br>Electrification<br>Strategies and<br>Planning  |
| Niger              | P160170   | TF0B1992        | Assessment on Electricity Access for Host Communities and Forcibly Displaced People in the Lake Chad Basin                          | 1) Electricity Access  | 1.1) Leave No One<br>Behind   |
| Niger              | P174034   | TF0B5095        | Niger: Energy<br>Sector Support<br>for Accelerating<br>Electricity Access   | 1) Electricity Access, 2) Foundations for Energy Transition, 3) Annual Block Grants, 4) Renewable Energy | 1.1) Integrated Electrification Strategies and Planning, 1.2) Global Mini Grids Facility, 1.3) Off-Grid Solar, 1.4) Improve Livelihoods and Human Capital, 1.5) Financial Innovation for Energy Access, 2.1) Utilities for the Energy Transition, 2.2) Energy Subsidy Reform Facility, 4.1) Energizing Renewables |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY   |
|--------------------|-----------|-----------------|--|--|--|
| Nigeria            | P167156   | TF0B2619        | Nigeria: Improved<br>Child Survival<br>Program for Human<br>Capital Multi-<br>Program Approach<br>(MPA)                  | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling, 1.2)<br>Zero Carbon Public<br>Sector  |
| Nigeria            | P172891   | TF0B3332        | Electricity Market Transition Assessment and Distribution Company (DISCO) Strengthening and Capacity Building in Nigeria | 1) Annual Block<br>Grants  |  |
| Nigeria            | P174760   | TF0B5042        | Nigeria:<br>Programmatic<br>Advisory Services<br>and Analytics (ASA)<br>for Energy                                       | 1) Renewable Energy, 2) Foundations for Energy Transition, 3) Annual Block Grants, 4) Electricity Access | 1.1) Energizing Renewables, 1.2) Innovative Solar, 2.1) Energy Markets, Connectivity and Trade, 2.2) Utilities for the Energy Transition, 2.3) Energy Subsidy Reform Facility, 4.1) Off-Grid Solar |
| Nigeria            | P176130   | TF0B5363        | Nigeria: Sustainable<br>Green e-Mobility<br>Solutions (ESMAP)  | 1) Accelerating<br>Decarbonization, 2)<br>Electricity Access   | 1.1) Zero Carbon<br>Public Sector, 2.1)<br>Global Mini Grids<br>Facility   |
| Sierra Leone       | P120304   | TF0B0480        | Sierra Leone: Expand<br>Electricity Access<br>in a Financially<br>Sustainable Manner                                     | 1) Electricity Access  | 1.1) Global Mini Grids<br>Facility   |
| Sierra Leone       | P120304   | TF0B1190        | Sierra Leone: Energy<br>Sector Subsidy<br>Reform Program   | 1) Foundations for<br>Energy Transition  | 1.1) Energy Subsidy<br>Reform Facility   |
| Sierra Leone       | P171059   | TF0B4850        | Promote Efficient<br>and Clean Cooking in<br>Sierra Leone  | 1) Clean Cooking<br>Fund   |  |

| COUNTRY/                         |           | TRUST    |   | ESMAP THEMATIC AND CROSS-  |   |
|----------------------------------|-----------|----------|---|--|---|
| REGION                           | PROJECT # | FUND #   | PROJECT NAME  | CUTTING AREA   | ESMAP PRIORITY  |
| Western<br>and Central<br>Africa | P160708   | TF0B2413 | Support to<br>Regional Off-Grid<br>Electrification Project<br>(ROGEP) - BETF  | 1) Regional Off-Grid<br>Electrification<br>Project (ROGEP)                               |   |
| Western<br>and Central<br>Africa | P167569   | TF0B1483 | Planning Support<br>for Battery Storage<br>for Variable<br>Renewable Energy<br>(VRE) Integration<br>in ECOWAS Power<br>System | 1) Renewable<br>Energy, 2) Annual<br>Block Grants  | 1.1) Energy Storage,<br>1.2) Energizing<br>Renewables   |
| Western<br>and Central<br>Africa | P173172   | TF0B2090 | Assessment on Electricity Access for Host Communities and Forcibly Displaced People in the Sahel                              | 1) Electricity Access  | 1.1) Leave No One<br>Behind   |
| EAST ASIA & P                    | ACIFIC    |          |   |  |   |
| China                            | P170663   | TF0B1039 | China: Energy<br>Transition to a<br>Lower-Coal Economy<br>in Shanxi Province  | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization                            | 1.1) Energizing<br>Renewables, 2.1) Zero<br>Carbon Public Sector  |
| China                            | P172281   | TF0B2652 | China: Energy<br>Revolution<br>Programmatic<br>Advisory Services<br>and Analytics (ASA)                                       | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy,<br>3) Annual Block<br>Grants | <ul><li>1.1) Zero Carbon</li><li>Public Sector,</li><li>2.1) Energizing</li><li>Renewables, 2.2)</li><li>Energy Storage</li></ul> |
| China                            | P173306   | TF0B2717 | Technical Assistance<br>for China Sustainable<br>Urban Cooling  | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling, 1.2)<br>Zero Carbon Public<br>Sector   |
| China                            | P173461   | TF0B6030 | Energy Efficiency and<br>Persistent Organic<br>Pollutants Mitigation<br>in Iron and Steel<br>Industry in China                | 1) Accelerating<br>Decarbonization   | 1.1) Industrial<br>Decarbonization  |
| East Asia and<br>Pacific         |           | TF012566 | Dissemination & Knowledge Sharing   | 1) Annual Block<br>Grants  |   |

| COUNTRY/<br>REGION       | PROJECT # | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA  | ESMAP PRIORITY  |
|--------------------------|-----------|-----------------|---|---|---|
| East Asia and<br>Pacific | P170589   | TF0B2739        | Energy and Extractives Programmatic Advisory Services and Analytics (ASA) in Papua New Guinea             | 1) Electricity Access,<br>2) Clean Cooking<br>Fund, 3) Renewable<br>Energy, 4) Annual<br>Block Grants | 1.1) Integrated Electrification Strategies and Planning, 1.2) Global Mini Grids Facility, 1.3) Off-Grid Solar, 3.1) Hydropower Development Facility |
| East Asia and<br>Pacific | P170589   | TF0B4219        | Energy and Extractives Programmatic Advisory Services and Analytics (ASA) in Papua New Guinea             | 1) Electricity Access,<br>2) Clean Cooking<br>Fund, 3) Renewable<br>Energy, 4) Annual<br>Block Grants | 1.1) Integrated Electrification Strategies and Planning, 1.2) Global Mini Grids Facility, 1.3) Off-Grid Solar, 3.1) Hydropower Development Facility |
| Indonesia                | P155047   | TF0B2516        | Indonesia: Energy<br>Transition and<br>Sustainable Access<br>to Modern Energy<br>for All                  | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables   |
| Indonesia                | P166071   | TF0B2515        | Indonesia: Energy<br>Transition and<br>Sustainable Access<br>to Modern Energy<br>for All                  | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables   |
| Indonesia                | P172256   | TF0B2521        | Indonesia: Energy<br>Transition and<br>Sustainable Access<br>to Modern Energy<br>for All                  | 1) Renewable<br>Energy  | 1.1) Hydropower<br>Development Facility   |
| Indonesia                | P173293   | TF0B2870        | Indonesia:<br>Sustainable Least-<br>cost Electrification<br>(ISLE) Scale-Up (BETF)                        | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables, 1.2)<br>Energy Storage   |
| Indonesia                | P173293   | TF0B4182        | Addressing Projected<br>Impact of COVID-19<br>Crisis on Perusahaan<br>Listrik Negara's (PLN)<br>Cash Flow | 1) Annual Block<br>Grants   |   |

| COUNTRY/<br>REGION                     | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                  | ESMAP PRIORITY   |
|--|-----------|-----------------|--|---|--|
| Indonesia                              | P173293   | TF0B4220        | Indonesia: Energy<br>Transition and<br>Sustainable Access to<br>Modern Energy for<br>All (Energy Subsidy<br>Reform Facility, ESRF) | 1) Foundations for<br>Energy Transition                       | 1.1) Energy Subsidy<br>Reform Facility   |
| Indonesia                              | P173293   | TF0B4426        | Development of<br>a Financial Early<br>Warning System<br>from Perusahaan<br>Listrik Negara (PLN)                                   | 1) Annual Block<br>Grants                                     |  |
| Indonesia                              | P173293   | TF0B4639        | Indonesia: Energy<br>Transition and<br>Sustainable Access to<br>Modern Energy for<br>All (Energy Subsidy<br>Reform Facility, ESRF) | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables  |
| Lao People's<br>Democratic<br>Republic | P169538   | TF0B0599        | Lao PDR: Clean<br>Cook Stove Initiative<br>(ESMAP)   | 1) Clean Cooking<br>Fund                                      |  |
| Lao People's<br>Democratic<br>Republic | P169538   | TF0B2443        | Lao PDR: Clean<br>Cook Stove<br>Initiative Project<br>Implementation   | 1) Clean Cooking<br>Fund                                      |  |
| Pacific<br>Islands                     | P152653   | TF0A1341        | Pacific Islands Sustainable Energy Industry Development Project Implementation Support (SIDS DOCK)                                 | 1) Small Island<br>Developing States<br>(SIDS)                |  |
| Pacific<br>Islands                     | P152653   | TF0A1342        | Pacific Islands<br>Sustainable Energy<br>Industry Development<br>Project (SIDS DOCK)   | 1) Small Island<br>Developing States<br>(SIDS)                |  |
| Philippines                            | P175004   | TF0B5114        | Philippines: Energy<br>Transition: Securing a<br>Clean and Affordable<br>Energy Future   | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization | 1.1) Energizing Renewables, 1.2) Offshore Wind, 2.1) Zero Carbon Public Sector |

| COUNTRY/<br>REGION         | PROJECT #  | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY  |
|----------------------------|------------|-----------------|--|---|---|
| Solomon<br>Islands         | P162902    | TF0A7860        | Solomon Islands:<br>Electricity Access and<br>Renewable Energy<br>Expansion Project          | 1) Small Island<br>Developing States<br>(SIDS)                        |   |
| Vietnam                    | P175981    | TF0B5801        | Retrofits and Cooling<br>Systems for Urban<br>Public Assets in<br>Vietnam                    | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector   |
| Vietnam                    | P176851    | TF0B1853        | Energy Transition<br>in Vietnam, FY2020-<br>FY2021   | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization         | 1.1) Energizing Renewables, 1.2) Energy Storage, 1.3) Offshore Wind, 2.1) Zero Carbon Public Sector |
| EUROPE & CEN               | ITRAL ASIA |                 |  |   |   |
| Azerbaijan                 | P175716    | TF0B4434        | Support to Azerbaijan Energy Sector Market Reforms and Offshore Wind Development             | 1) Renewable<br>Energy, 2) Annual<br>Block Grants                     | 1.1) Offshore Wind  |
| Europe and<br>Central Asia | P163273    | TF0A4466        | Energy, Gender, and<br>Social Inclusion in<br>the ECA Region                                 | 1) Annual Block<br>Grants, 2)<br>Foundations for<br>Energy Transition | 2.1) Closing Gender<br>Gaps in Energy   |
| Kazakhstan                 | P130013    | TF0B6012        | Kazakhstan:<br>Industrial Energy<br>Transition Initiative                                    | 1) Accelerating<br>Decarbonization                                    | 1.1) Industrial<br>Decarbonization  |
| Kyrgyz<br>Republic         | P157079    | TF0A6889        | Energy Efficiency<br>Improvements in<br>Public Buildings in<br>the Kyrgyz Republic           | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector   |
| Kyrgyz<br>Republic         | P157079    | TF0B2457        | Energy Efficiency<br>Improvements in<br>Public Buildings in<br>the Kyrgyz Republic<br>(RETF) | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY   |
|--------------------|-----------|-----------------|--|--|--|
| Kyrgyz<br>Republic | P174466   | TF0B3586        | Supporting Energy<br>Sector Reform to<br>Improve Financial<br>Viability  | Foundations for Energy Transition,     Accelerating Decarbonization  | 1.1) Energy Subsidy<br>Reform Facility, 2.1)<br>Zero Carbon Public<br>Sector   |
| Turkiye            | P171645   | TF0B3338        | Türkiye: Promoting<br>Low-Carbon<br>Technologies and<br>Circular Economy in<br>Organized Industrial<br>Zones                       | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy   | <ul><li>1.1) Industrial</li><li>Decarbonization,</li><li>2.1) Energizing</li><li>Renewables</li></ul>  |
| Turkiye            | P173157   | TF0B2395        | Türkiye: Energy<br>Transition Program  | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization, 3)<br>Annual Block Grants                           | 1.1) Energy Storage, 1.2) Innovative Solar, 1.3) Energizing Renewables, 1.4) Offshore Wind, 2.1) Zero Carbon Public Sector, 2.2) Geothermal Direct Use |
| Uzbekistan         | P146206   | TF0A7360        | Urban Heating<br>Strategy for<br>Uzbekistan  | 1) Accelerating<br>Decarbonization   | 1.1) Zero Carbon<br>Public Sector  |
| Uzbekistan         | P168487   | TF0A9281        | Uzbekistan: Energy<br>Sector Development<br>Programmatic<br>Support  | 1) Renewable Energy, 2) Accelerating Decarbonization, 3) Foundations for Energy Transition, 4) Annual Block Grants | 1.1) Energizing Renewables, 1.2) Energy Storage, 1.3) Innovative Solar, 2.1) Zero Carbon Public Sector, 3.1) Energy Subsidy Reform Facility            |
| Uzbekistan         | P168487   | TF0B1752        | Uzbekistan: Support<br>for Preparation<br>of Energy<br>Sector Strategy<br>Programmatic<br>Advisory Services<br>and Analytics (ASA) | 1) Foundations for<br>Energy Transition  | 1.1) Energy Subsidy<br>Reform Facility   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|--|--|---|
| Uzbekistan         | P168487   | TF0B4268        | Fostering Industrial Decarbonization in Uzbekistan through Innovative Technologies       | 1) Accelerating<br>Decarbonization   | 1.1) Industrial<br>Decarbonization  |
| Uzbekistan         | P168487   | TF0B4974        | Uzbekistan:<br>Renewable Energy<br>Scale-up Support                                      | 1) Renewable<br>Energy, 2)<br>Foundations for<br>Energy Transition                       | 1.1) Energizing<br>Renewables, 1.2)<br>Energy Storage, 2.1)<br>Utilities for the Energy<br>Transition |
| Uzbekistan         | P176060   | TF0B6094        | Decarbonization of<br>Heating and Cooling<br>Systems in Buildings<br>in Uzbekistan       | 1) Accelerating<br>Decarbonization   | 1.1) Zero Carbon<br>Public Sector   |
| Western<br>Balkans | P169389   | TF0B1935        | Western Balkans:<br>Energy Transition<br>Program   | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy,<br>3) Annual Block<br>Grants | <ul><li>1.1) Zero Carbon</li><li>Public Sector,</li><li>2.1) Energizing</li><li>Renewables</li></ul>  |
| Western<br>Balkans | P169389   | TF0B6178        | Western Balkans:<br>Energy Subsidy<br>Reform Advisory<br>Services and<br>Analytics (ASA) | 1) Foundations for<br>Energy Transition  | 1.1) Energy Subsidy<br>Reform Facility  |
| GLOBAL             |           |                 |  |  |   |
| Global             |           | TF011316        | SIDS/DOCK Program<br>Management  | 1) Small Island<br>Developing States<br>(SIDS)   |   |
| Global             |           | TF0A5993        | ESMAP Monitoring & Evaluation  | 1) Program Management & Administration, M&E, Communication, Knowledge Management         | 1.1) Monitoring &<br>Evaluation (M&E)   |

| COUNTRY/<br>REGION | PROJECT #        | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                                     | ESMAP PRIORITY                                  |
|--------------------|------------------|-----------------|--|--|---|
| Global             |                  | TF0A6021        | ESMAP<br>Communications &<br>Outreach  | 1) Program Management & Administration, M&E, Communication, Knowledge Management | 1.1) Communications                             |
| Global             |                  | TF0A6071        | ESMAP Program<br>Management &<br>Administration  | 1) Program Management & Administration, M&E, Communication, Knowledge Management | 1.1) Program Management & Administration (PM&A) |
| Global             |                  | TF0A6072        | ESMAP Knowledge<br>Management  | 1) Program Management & Administration, M&E, Communication, Knowledge Management | 1.1) Knowledge<br>Management                    |
| Global             |                  | TF0A6359        | OGE Power Systems<br>Planning (TF)   | 1) Annual Block<br>Grants  |   |
| Global             | IFC-<br>00603979 | TF0B2086        | Develop Climate<br>Smart Cold Chain<br>Solutions with IFC<br>Clients   | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling             |
| Global             | P122192          | TF097014        | Carbon Finance Carbon Capture & Storage Reimbursements to the Bank (Quarterly Billing)   | 1) Carbon Capture<br>& Storage (CCUS)  |   |
| Global             | P165586          | TF0B5680        | Scaling Up De-<br>Carbonization in<br>Water Utilities:<br>Financing and<br>Implementation of<br>Energy Efficiency,<br>Renewable<br>Energy, and New<br>Technologies | 1) Accelerating<br>Decarbonization   | 1.1) Zero Carbon<br>Public Sector               |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY   |
|--------------------|-----------|-----------------|--|--|--|
| Global             | P169835   | TF0A9394        | Global: Role of<br>Liquefied Petroleum<br>Gas as a Household<br>Fuel   | 1) Clean<br>Cooking Fund, 2)<br>Foundations for<br>Energy Transition                                       | 2.1) Energy Subsidy<br>Reform Facility                           |
| Global             | P170090   | TF0A9367        | Offshore Wind<br>Development<br>Program  | 1) Renewable<br>Energy   | 1.1) Offshore Wind   |
| Global             | P170148   | TF0A9896        | Sediment Management in Reservoirs and Run- Of-The-River Projects   | 1) Renewable<br>Energy   | 1.1) Hydropower<br>Development Facility                          |
| Global             | P171037   | TF0B1753        | Quality Assurance<br>Capacity Building for<br>the Off-Grid Solar<br>Sector   | 1) Electricity Access  | 1.1) Off-Grid Solar  |
| Global             | P171173   | TF0B2450        | Decarbonizing Natural Gas Using Carbon Capture Utilization and Storage   | <ol> <li>Carbon Capture</li> <li>Storage (CCUS),</li> <li>Accelerating</li> <li>Decarbonization</li> </ol> | 2.1) Industrial<br>Decarbonization                               |
| Global             | P171194   | TF0B3997        | Coal Transition<br>Program, FY2021-24<br>Own-managed   | 1) Foundations for<br>Energy Transition  | 1.1) Supporting Coal<br>Regions in Transition                    |
| Global             | P173658   | TF0B4422        | Technical Assistance<br>to Selected<br>Countries to Realign<br>Agricultural and<br>Energy Policies<br>and Support for<br>Sustainable Food<br>Systems | 1) Renewable<br>Energy, 2)<br>Foundations for<br>Energy Transition   | 1.1) Innovative Solar,<br>2.1) Energy Subsidy<br>Reform Facility |
| Global             | P173841   | TF0B3126        | Green Hydrogen<br>Support Program  | 1) Accelerating<br>Decarbonization   | 1.1) Green Hydrogen  |
| Global             | P173908   | TF0B3762        | Hydropower<br>Development Facility,<br>FY2021-24 (Own-<br>managed)   | 1) Renewable<br>Energy   | 1.1) Hydropower<br>Development Facility                          |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA | ESMAP PRIORITY   |
|--------------------|-----------|-----------------|--|--|--|
| Global             | P173931   | TF0B3158        | Energy Data Hub<br>- FY2021-24 - Own-<br>managed                         | 1) Energy Data &<br>Analytics                | 1.1) Energy Data Hub   |
| Global             | P173969   | TF0B3095        | Energy Storage<br>Program, FY2021-24<br>(Own-managed)                    | 1) Renewable<br>Energy                       | 1.1) Energy Storage  |
| Global             | P174100   | TF0B3094        | Innovative Solar<br>Program  | 1) Renewable<br>Energy                       | 1.1) Innovative Solar  |
| Global             | P174202   | TF0B3091        | EnRen (Own-<br>managed)  | 1) Renewable<br>Energy                       | 1.1) Energizing<br>Renewables  |
| Global             | P174202   | TF0B3092        | International Solar<br>Alliance (Own-<br>managed)                        | 1) Renewable<br>Energy                       | 1.1) Energizing<br>Renewables  |
| Global             | P174232   | TF0B3109        | Clean Cooking Fund,<br>FY2021-24 (Own-<br>managed)                       | 1) Clean Cooking<br>Fund                     |  |
| Global             | P174320   | TF0B3941        | Global: Electricity<br>Demand Estimation                                 | 1) Energy Data &<br>Analytics                | 1.1) Demand<br>Estimation  |
| Global             | P174326   | TF0B3096        | Energy Subsidy<br>Reform Technical<br>Assistance Facility                | 1) Foundations for<br>Energy Transition      | 1.1) Energy Subsidy<br>Reform Facility   |
| Global             | P174364   | TF0B3188        | Geothermal<br>Program, FY2021-24<br>(Own-managed)                        | 1) Accelerating<br>Decarbonization           | 1.1) Geothermal<br>Direct Use  |
| Global             | P174481   | TF0B3159        | RISE Regulatory<br>Indicators for<br>Sustainable Energy                  | 1) Energy Data &<br>Analytics                | 1.1) Regulatory<br>Indicators for<br>Sustainable Energy<br>(RISE) / Regulatory<br>Benchmarking Project             |
| Global             | P174481   | TF0B3160        | Multi-tier Energy<br>Access Tracking<br>Framework (MTF)<br>Global Survey | 1) Energy Data &<br>Analytics                | 1.1) Multi-tier Energy Access Tracking Framework (MTF) (including data on clean cooking and displaced communities) |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA | ESMAP PRIORITY                                    |
|--------------------|-----------|-----------------|---|--|---|
| Global             | P174481   | TF0B3161        | Tracking SDG7   | 1) Energy Data &<br>Analytics                | 1.1) Tracking SDG 7<br>Report                     |
| Global             | P174518   | TF0B3880        | Global: Electricity<br>Markets, Connectivity<br>and Trade (MARCOT)<br>Program | 1) Foundations for<br>Energy Transition      | 1.1) Energy Markets,<br>Connectivity and<br>Trade |
| Global             | P174659   | TF0B3546        | ESMAP Zero Carbon<br>Public Sector,<br>FY2021-24 (Own-<br>managed)            | 1) Accelerating<br>Decarbonization           | 1.1) Zero Carbon<br>Public Sector                 |
| Global             | P174660   | TF0B3569        | ESMAP Efficient<br>Clean Cooling<br>program, FY2021-24<br>(Own-managed)       | 1) Accelerating<br>Decarbonization           | 1.1) Efficient and<br>Clean Cooling               |
| Global             | P174661   | TF0B3542        | ESMAP Accelerating<br>Decarbonization<br>- FY2021-24 (Own-<br>managed)        | 1) Accelerating<br>Decarbonization           | 1.1) Industrial<br>Decarbonization                |
| Global             | P175149   | TF0B4030        | Leaving No One<br>Behind, FY2021-24<br>(Own-managed)                          | 1) Electricity Access                        | 1.1) Leave No One<br>Behind                       |
| Global             | P175150   | TF0B3993        | Off-Grid Solar<br>Scale-Up, FY2021-24<br>(Own-managed)                        | 1) Electricity Access                        | 1.1) Off-Grid Solar                               |
| Global             | P175151   | TF0B4088        | Mini Grid Facility,<br>FY2021-24 (Own-<br>managed)                            | 1) Electricity Access                        | 1.1) Global Mini Grids<br>Facility                |
| Global             | P175152   | TF0B3965        | Improving<br>Livelihoods through<br>Productive Use of<br>Electricity          | 1) Electricity Access                        | 1.1) Improve<br>Livelihoods and<br>Human Capital  |
| Global             | P175152   | TF0B3966        | Improving<br>Livelihoods and<br>Human Capital (Own<br>Managed)                | 1) Electricity Access                        | 1.1) Improve<br>Livelihoods and<br>Human Capital  |

| COUNTRY/<br>REGION | PROJECT #   | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA        | ESMAP PRIORITY  |
|--------------------|-------------|-----------------|---|---|---|
| Global             | P175153     | TF0B4069        | Integrated<br>Electrification<br>Strategies &<br>Planning, FY2021-24<br>(Own-managed)     | 1) Electricity Access                               | 1.1) Integrated<br>Electrification<br>Strategies and<br>Planning          |
| Global             | P175154     | TF0B4003        | Financial Innovation<br>for Energy Access,<br>FY2021-24 (Own-<br>managed)                 | 1) Electricity Access                               | 1.1) Financial<br>Innovation for Energy<br>Access                         |
| Global             | P175305     | TF0B4458        | Commercial, Public<br>and Industrial<br>Buildings Energy<br>Efficiency and<br>Cooling     | 1) Accelerating<br>Decarbonization                  | 1.1) Zero Carbon<br>Public Sector, 1.2)<br>Efficient and Clean<br>Cooling |
| Global             | P175482     | TF0B5359        | ESMAP Gender<br>and Energy Global<br>Program  | 1) Foundations for<br>Energy Transition             | 1.1) Closing Gender<br>Gaps in Energy                                     |
| Global             | P175657     | TF0B6059        | Supervision of<br>COVID-19 Energy<br>Access Relief Fund                                   | 1) Electricity Access                               | 1.1) Off-Grid Solar   |
| Global             | P176438     | TF0B5505        | Jobs (Own-managed<br>BETF)  | 1) Other  |   |
| LATIN AMERIC       | A & CARIBBE | AN              |   |   |   |
| Argentina          | P159843     | TF0B5640        | Promoting sustainable and energy efficient social housing in the Province of Buenos Aires | 1) Accelerating<br>Decarbonization                  | 1.1) Zero Carbon<br>Public Sector, 1.2)<br>Efficient and Clean<br>Cooling |
| Caribbean          | P159107     | TF0B0592        | Mainstreaming Energy Resilience and Supporting Climate Finance in OECS Countries          | 1) Electricity Access,<br>2) Annual Block<br>Grants | 1.1) Global Mini Grids<br>Facility  |
| Caribbean          | P159107     | TF0B5506        | Accelerating Green<br>Energy Transition in<br>Grenada - P159107                           | 1) Annual Block<br>Grants                           |   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|--|--|---|
| Caribbean          | P159107   | TF0B6221        | Implementation Mechanisms and Time-bound Action Plan for Accelerating EE and Distributed RE in Residential, Commercial, Public and Industrial Buildings in Grenada | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization                                | 1.1) Innovative Solar,<br>2.1) Zero Carbon<br>Public Sector   |
| Central<br>America | P169052   | TF0B2957        | Advisory services to accompany the development of the electricity sector regulatory and normative frameworks in Honduras   | 1) Annual Block<br>Grants  |   |
| Colombia           | P172319   | TF0B2682        | Support the implementation of the Energy Transition and Modernization of the Power Sector in Colombia  | 1) Electricity Access, 2) Accelerating Decarbonization, 3) Foundations for Energy Transition | 1.1) Integrated Electrification Strategies and Planning, 1.2) Off-Grid Solar, 1.3) Global Mini Grids Facility, 2.1) Zero Carbon Public Sector, 3.1) Utilities for the Energy Transition |
| Colombia           | P172319   | TF0B5061        | Offshore Wind<br>Roadmap for<br>Colombia   | 1) Renewable<br>Energy   | 1.1) Offshore Wind  |
| Dominica           | P156500   | TF013661        | Small Island Developing States (SIDS): Geothermal Development in Dominica  | 1) Small Island<br>Developing States<br>(SIDS)   |   |
| Dominica           | P162149   | TF0A9545        | Dominica<br>Geothermal Risk<br>Mitigation Project  | 1) Renewable<br>Energy   | 1.1) Energizing<br>Renewables   |

| COUNTRY/<br>REGION    | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA  | ESMAP PRIORITY  |
|-----------------------|-----------|-----------------|--|---|---|
| Dominica              | P162149   | TF0B1219        | Dominica<br>Geothermal Risk<br>Mitigation (BETF)   | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization                                 | 1.1) Energizing<br>Renewables, 2.1)<br>Geothermal Direct<br>Use         |
| Dominican<br>Republic | P147277   | TF0A7456        | Technical Assistance<br>for Distribution<br>Grid Modernization<br>and Loss Reduction<br>in the Dominican<br>Republic | 1) Electricity Access,<br>2) Annual Block<br>Grants   | 1.1) Leave No One<br>Behind   |
| Dominican<br>Republic | P175874   | TF0B5807        | Supporting Electricity<br>Sector Reforms<br>in the Dominican<br>Republic   | 1) Foundations for<br>Energy Transition   | 1.1) Energy Subsidy<br>Reform Facility                                  |
| Haiti                 | P156719   | TF0B3842        | Solar Hybrid Electricity Systems for Prioritized Healthcare and Water Facilities in Haiti in the Context of COVID-19 | 1) Electricity Access   | 1.1) Improve<br>Livelihoods and<br>Human Capital                        |
| Haiti                 | P156719   | TF0B3955        | Solar Hybrid Electricity Systems for Prioritized Healthcare and Water Facilities in Haiti in the Context of COVID-19 | 1) Electricity Access   | 1.1) Improve<br>Livelihoods and<br>Human Capital                        |
| Latin<br>America      | P144569   | TF014176        | Assessment of<br>Geothermal Potential<br>in LCR  | 1) Renewable<br>Energy, 2) Annual<br>Block Grants   | 1.1) Energizing<br>Renewables   |
| Latin<br>America      | P163363   | TF0A4742        | LCR Energy and<br>Gender Program   | 1) Renewable<br>Energy, 2) Annual<br>Block Grants, 3)<br>Foundations for<br>Energy Transition | 1.1) Energizing<br>Renewables, 3.1)<br>Closing Gender Gaps<br>in Energy |

| COUNTRY/<br>REGION                 | PROJECT #   | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY  |
|------------------------------------|-------------|-----------------|--|---|---|
| Latin<br>America                   | P166823     | TF0A9773        | Argentina & Paraguay:<br>Promoting Cleaner<br>and Sustainable<br>Energy Systems                            | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants         | 1.1) Zero Carbon<br>Public Sector   |
| Mexico                             | P161360     | TF0A5156        | Support for the<br>Development of<br>Carbon Capture,<br>Utilization, and<br>Storage in Mexico,<br>Phase II | 1) Carbon Capture<br>& Storage (CCUS)                                 |   |
| St. Lucia                          | P161316     | TF0B2294        | St Lucia: Renewable<br>Energy Sector<br>Development Project<br>(ESMAP/DFID BETF)                           | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables   |
| MIDDLE EAST                        | & NORTH AFR | ICA             |  |   |   |
| Iraq                               | P155335     | TF0B0192        | Iraq: Energy Sector<br>Programmatic<br>Technical Assistance  | 1) Annual Block<br>Grants   |   |
| Iraq                               | P168745     | TF0A9925        | Iraq: Gas Sector<br>Reform   | 1) Annual Block<br>Grants   |   |
| Lebanon                            | P170769     | TF0B1373        | Generation Mix and<br>Transmission System<br>Planning for 2020-<br>2030                                    | 1) Annual Block<br>Grants   |   |
| Middle East<br>and North<br>Africa | P163837     | TF0A5196        | MNA Energy and<br>Gender Program   | 1) Annual Block<br>Grants, 2)<br>Foundations for<br>Energy Transition | 2.1) Utilities for the<br>Energy Transition, 2.2)<br>Closing Gender Gaps<br>in Energy |
| Middle East<br>and North<br>Africa | P170546     | TF0B3749        | Unlocking E-Mobility<br>Development<br>Potential in MNA<br>(ESMAP)   | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector, 1.2)<br>Efficient and Clean<br>Cooling             |
| Middle East<br>and North<br>Africa | P174504     | TF0B5841        | Pan-Arab Regional<br>Energy Trade<br>Investment Support<br>- CCU - Component 3<br>of PA-RETP 2.0           | 1) Carbon Capture<br>& Storage (CCUS)                                 |   |

|                                    |           |                 |   | ESMAP THEMATIC   |  |
|------------------------------------|-----------|-----------------|---|--|--|
| COUNTRY/<br>REGION                 | PROJECT # | TRUST<br>FUND # | PROJECT NAME  | AND CROSS-<br>CUTTING AREA                                 | ESMAP PRIORITY   |
| Middle East<br>and North<br>Africa | P174504   | TF0B5900        | Pan-Arab Regional Energy Trade Investment Support Energy Connectivity   Sustainability   Security (PA- RETP2.0) | 1) Foundations for<br>Energy Transition                    | 1.1) Energy Markets,<br>Connectivity and<br>Trade  |
| Morocco                            | P172651   | TF0B2319        | Morocco: Clean<br>and Efficient Energy<br>Transition Support  | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy | <ul><li>1.1) Zero Carbon</li><li>Public Sector,</li><li>2.1) Energizing</li><li>Renewables</li></ul> |
| Tunisia                            | P164625   | TF0A6788        | Power Interconnector: Project Preparation Technical Assistance in the Republic of Tunisia (BETF)                | 1) Annual Block<br>Grants                                  |  |
| Tunisia                            | P164625   | TF0A6789        | Power Interconnector: Project Preparation Technical Assistance in the Republic of Tunisia (RETF)                | 1) Annual Block<br>Grants                                  |  |
| SOUTH ASIA                         |           |                 |   |  |  |
| Afghanistan                        | P173775   | TF0B5205        | Solarization of<br>Vaccine Storage<br>Facilities in<br>Afghanistan  | 1) Electricity Access                                      | 1.1) Improve<br>Livelihoods and<br>Human Capital   |
| Afghanistan                        | P173775   | TF0B6034        | Solarization of<br>Vaccine Storage<br>Facilities in<br>Afghanistan (BE)   | 1) Electricity Access                                      | 1.1) Improve<br>Livelihoods and<br>Human Capital   |
| Bangladesh                         | P131263   | TF0A8133        | Implementation<br>Support for<br>Bangladesh Clean<br>Cooking Program  | 1) Clean Cooking<br>Fund                                   |  |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|--|--|---|
| Bangladesh         | P161246   | TF0B2571        | Clean and Energy<br>Efficient Cooling for<br>Livestock Supply<br>Chains in Bangladesh          | 1) Accelerating<br>Decarbonization   | 1.1) Efficient and<br>Clean Cooling   |
| Bangladesh         | P161869   | TF0A6626        | Scaling-up<br>Renewable Energy in<br>Bangladesh  | 1) Renewable<br>Energy, 2) Annual<br>Block Grants  | 1.1) Energizing<br>Renewables, 1.2)<br>Innovative Solar   |
| Bangladesh         | P170688   | TF0B3140        | Maximize Sustainable and Resilient Energy Supply and Use in Green Economic Zones in Bangladesh | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy                                       | 1.1) Industrial<br>Decarbonization, 2.1)<br>Innovative Solar  |
| Bangladesh         | P172183   | TF0B0886        | Bangladesh: Roadmap for Meeting Energy Needs of Refugees and Host Communities                  | 1) Electricity Access,<br>2) Clean Cooking<br>Fund   | 1.1) Leave No One<br>Behind, 1.2) Global<br>Mini Grids Facility   |
| Bangladesh         | P172183   | TF0B2221        | Bangladesh: Energy<br>Transitions  | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy,<br>3) Annual Block<br>Grants         | 1.1) Efficient and<br>Clean Cooling,<br>1.2) Zero Carbon<br>Public Sector, 2.1)<br>Energy Storage,<br>2.2) Energizing<br>Renewables |
| Bangladesh         | P174650   | TF0B5508        | Bangladesh:<br>Electricity<br>Distribution Network<br>Transformation                           | 1) Renewable<br>Energy, 2)<br>Foundations for<br>Energy Transition,<br>3) Annual Block<br>Grants | 1.1) Innovative Solar,<br>2.1) Utilities for the<br>Energy Transition   |
| India              | P162086   | TF0A6977        | Supporting<br>Government of<br>India's 24x7 Power<br>for All program                           | 1) Annual Block<br>Grants  |   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY   |
|--------------------|-----------|-----------------|--|--|--|
| India              | P170590   | TF0B0661        | Supporting<br>Government of<br>India's 24x7 Power<br>for All program in<br>West Bengal   | 1) Annual Block<br>Grants  |  |
| India              | P170602   | TF0B1586        | India: Supporting<br>Energy Transition   | 1) Renewable Energy, 2) Accelerating Decarbonization, 3) Foundations for Energy Transition | 1.1) Energizing Renewables, 1.2) Innovative Solar, 1.3) Energy Storage, 1.4) Hydropower Development Facility, 1.5) Offshore Wind, 2.1) Efficient and Clean Cooling, 2.2) Zero Carbon Public Sector, 3.1) Supporting Coal Regions in Transition |
| India              | P170602   | TF0B4637        | India: Supporting<br>Himachal Pradesh<br>in tapping its<br>Renewable Energy<br>Potential | 1) Renewable<br>Energy   | 1.1) Energizing<br>Renewables  |
| India              | P170602   | TF0B4638        | Addressing Development Challenges in India's Hydropower Sector                           | 1) Annual Block<br>Grants  |  |
| India              | P170602   | TF0B5384        | India: Supporting<br>structural reforms<br>in electricity<br>distribution sector         | 1) Annual Block<br>Grants  |  |
| India              | P170602   | TF0B5531        | Developing a<br>Compressed Bio-Gas<br>roadmap in India                                   | 1) Accelerating<br>Decarbonization   | 1.1) Zero Carbon<br>Public Sector  |
| India              | P170602   | TF0B5641        | Green Hydrogen<br>Opportunities and<br>Roadmap for India                                 | 1) Accelerating<br>Decarbonization   | 1.1) Industrial<br>Decarbonization, 1.2)<br>Green Hydrogen   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA               | ESMAP PRIORITY   |
|--------------------|-----------|-----------------|--|--|--|
| Maldives           | P145482   | TF0B0238        | Maldives: Supporting<br>Energy Transition<br>and Integrated<br>Resource Planning<br>in an Island-Grid<br>Context                             | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy | 1.1) Zero Carbon Public Sector, 2.1) Energizing Renewables, 2.2) Innovative Solar, 2.3) Energy Storage |
| Maldives           | P145482   | TF0B5106        | Maldives: Supporting<br>Energy Transition<br>and Integrated<br>Resource Planning<br>in an Island-Grid<br>Context                             | 1) Small Island<br>Developing States<br>(SIDS)             |  |
| Maldives           | P172788   | TF0B3331        | Maldives: Supporting<br>the Development of<br>Electric Mobility in<br>the Maldives   | 1) Accelerating<br>Decarbonization                         | 1.1) Zero Carbon<br>Public Sector  |
| Nepal              | P150066   | TF0B0014        | Nepal: Technical Assistance and Capacity Building Support for Institutional Strengthening of the NEA for Environmental and Social Management | 1) Annual Block<br>Grants                                  |  |
| Nepal              | P171183   | TF0B1747        | Support Sustainable<br>Hydropower<br>Development in<br>Nepal   | 1) Renewable<br>Energy                                     | 1.1) Hydropower<br>Development Facility  |
| Pakistan           | P169313   | TF0B0583        | Pakistan: Technical assistance on electricity distribution efficiency improvement  | 1) Annual Block<br>Grants                                  |  |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                                      | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|---|---|---|
| Pakistan           | P169313   | TF0B0934        | Pakistan: Sustainable<br>Energy Program   | 1) Accelerating<br>Decarbonization, 2)<br>Renewable Energy                        | 1.1) Efficient and<br>Clean Cooling, 1.2)<br>Zero Carbon Public<br>Sector, 2.1) Energizing<br>Renewables, 2.2)<br>Innovative Solar  |
| Pakistan           | P169313   | TF0B4266        | Pakistan: Energy<br>Access Technical<br>Assistance  | 1) Electricity Access,<br>2) Energy Data &<br>Analytics                           | 1.1) Integrated Electrification Strategies and Planning, 1.2) Global Mini Grids Facility, 1.3) Off-Grid Solar, 2.1) Multi-tier Energy Access Tracking Framework (MTF) (including data on clean cooking and displaced communities) |
| South Asia         | P167971   | TF0B5507        | Accelerate South Asia<br>Power Market (ASAP):<br>Development of<br>Regional Wholesale<br>Market Design<br>Options for Cross<br>Border Electricity<br>Trade among BBINS<br>(Bangladesh, Bhutan,<br>India, Nepal, and Sri<br>Lanka) countries | 1) Renewable Energy, 2) Foundations for Energy Transition, 3) Annual Block Grants | 1.1) Hydropower Development Facility, 2.1) Energy Markets, Connectivity and Trade   |
| Sri Lanka          | P166865   | TF0B5911        | Floating Solar PV<br>Development Option<br>Study  | 1) Renewable<br>Energy  | 1.1) Innovative Solar   |
| Sri Lanka          | P175305   | TF0B4044        | Offshore Wind<br>Development<br>Roadmap and<br>Demonstration<br>Project Study   | 1) Renewable<br>Energy  | 1.1) Offshore Wind  |

### **Closed ESMAP Activities, FY2022**

| Closed ESIMA                        | ACTIVITIE | 5, F12022       |  |   |  |
|-------------------------------------|-----------|-----------------|--|---|--|
| COUNTRY/<br>REGION                  | PROJECT#  | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA  | ESMAP PRIORITY   |
| AFRICA                              |           |                 |  |   |  |
| Africa                              | P169041   | TF0A9018        | State of African<br>Utilities  | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants                           | 1.1) Energy Subsidy<br>Reform Facility   |
| AFRICA EAST                         |           |                 |  |   |  |
| Angola                              | P169765   | TF0A9623        | Angola Energy Sector<br>Engagement   | 1) Electricity Access,<br>2) Foundations for<br>Energy Transition,<br>3) Annual Block<br>Grants | 1.1) Integrated Electrification Strategies and Planning, 2.1) Energy Subsidy Reform Facility |
| Congo,<br>Democratic<br>Republic of | P167912   | TF0A8630        | Mapping and Prioritization of Hydropower Resources in the Democratic Republic of Congo   | 1) Energy Data &<br>Analytics   | 1.1) Energy Data Hub   |
| Eritrea                             | P173146   | TF0B2293        | Eritrea: Power Sector<br>Policy Note   | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants                           | 1.1) Energy Subsidy<br>Reform Facility   |
| Rwanda                              | P162646   | TF0B2012        | Supporting Efficient<br>and Clean Cooking<br>for Beneficiaries of<br>Rwanda's flagship<br>Social Safety Net<br>- The Vision 2020<br>Umurenge Program | 1) Clean Cooking<br>Fund  |  |
| Uganda                              | P166685   | TF0B1934        | Uganda: Energy<br>Access Scale-up<br>Project - Clean<br>Cooking  | 1) Clean Cooking<br>Fund  |  |
|                                     |           |                 |  |   |  |

| COUNTRY/<br>REGION       | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                  | ESMAP PRIORITY   |
|--------------------------|-----------|-----------------|--|---|--|
| AFRICA WEST              |           |                 |  |   |  |
| Nigeria                  | P164001   | TF0A8119        | Nigeria: Facilitating<br>Implementation<br>of Power Sector<br>Recovery Program                               | 1) Foundations for<br>Energy Transition                       | 1.1) Energy Subsidy<br>Reform Facility                     |
| Nigeria                  | P174760   | TF0B8337        | Nigeria: Hydro<br>Support<br>under Energy<br>Programmatic<br>Advisory Services<br>and Analytics (ASA)        | 1) Renewable<br>Energy  | 1.1) Hydropower<br>Development Facility                    |
| China                    | P158079   | TF0A8315        | China: Development<br>of Green and Energy<br>Efficient Urban<br>Industrial Zones                             | 1) Accelerating<br>Decarbonization                            | 1.1) Zero Carbon<br>Public Sector                          |
| East Asia and<br>Pacific | P151262   | TF0B4267        | Increasing Access to<br>Clean Cooking and<br>Establishing Power<br>Sector Strategy and<br>Engagement         | 1) Annual Block<br>Grants                                     |  |
| Marshall<br>Islands      | P160910   | TF0A6578        | Promotion of Energy<br>Efficiency Program  | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants | 1.1) Zero Carbon<br>Public Sector                          |
| Myanmar                  | P152936   | TF0A6531        | Off-Grid Access in<br>Myanmar (ESMAP<br>RETF)  | 1) Electricity Access   | 1.1) Off-Grid Solar  |
| Myanmar                  | P152936   | TF0A6611        | Off-Grid Access in<br>Myanmar  | 1) Electricity Access   | 1.1) Off-Grid Solar,<br>1.2) Global Mini Grids<br>Facility |
| Myanmar                  | P152936   | TF0A7405        | Support for Implementation of the Sustainable Energy for All and National Electrification Program in Myanmar | 1) Annual Block<br>Grants                                     |  |

| COUNTRY/<br>REGION | PROJECT#   | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA      | ESMAP PRIORITY  |
|--------------------|------------|-----------------|---|---|---|
| Myanmar            | P171461    | TF0A6395        | Support for<br>Renewable Energy<br>Development in<br>Myanmar  | 1) Renewable<br>Energy                            | 1.1) Energizing<br>Renewables, 1.2)<br>Innovative Solar |
| Myanmar            | P171461    | TF0B2693        | Myanmar: Efficient<br>Electric Cooking<br>Solutions   | 1) Clean Cooking<br>Fund                          |   |
| Philippines        | P147646    | TF0A7322        | Agus Hydropower<br>Cascade<br>Rehabilitation  | 1) Annual Block<br>Grants                         |   |
| Philippines        | P173728    | TF0B5761        | Climate Risk Assessment in Preparation for of Agus-Pulangi Hydropower Complex Rehabilitation (APHC) | 1) Renewable<br>Energy                            | 1.1) Hydropower<br>Development Facility                 |
| Vietnam            | P176851    | TF0A9131        | Vietnam: Power<br>Development Plan:<br>Supporting Activities  | 1) Renewable<br>Energy, 2) Annual<br>Block Grants | 1.1) Energizing<br>Renewables                           |
| Vietnam            | P176851    | TF0B0987        | Supporting<br>Implementation<br>of National Energy<br>Efficiency Program in<br>Vietnam              | 1) Accelerating<br>Decarbonization                | 1.1) Zero Carbon<br>Public Sector                       |
| EUROPE & CEI       | NTRAL ASIA |                 |   |   |   |
| Central Asia       | P166417    | TF0A7670        | Just-in-Time<br>Renewable Energy<br>Development<br>Support for Central<br>Asia                      | 1) Renewable<br>Energy, 2) Annual<br>Block Grants | 1.1) Energizing<br>Renewables, 1.2)<br>Energy Storage   |
| Moldova            | P167676    | TF0A9428        | Optimization of DH<br>System and Fuel<br>Supply Options Study                                       | 1) Clean Cooking<br>Fund                          |   |

| COUNTRY/<br>REGION | PROJECT# | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY   |
|--------------------|----------|-----------------|--|---|--|
| Moldova            | P169217  | TF0A9348        | Moldova: Public<br>Sector Energy<br>Efficiency Financing<br>Options                          | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector  |
| Serbia             | P169842  | TF0A9504        | Serbia: District Heating Tariff Study and Poverty and Social Impact Assessment               | 1) Accelerating Decarbonization, 2) Foundations for Energy Transition | 1.1) Zero Carbon<br>Public Sector, 2.1)<br>Energy Subsidy<br>Reform Facility |
| Tajikistan         | P167384  | TF0A7624        | Tajikistan: Electricity<br>Tariff Setting and<br>Mitigation of Social<br>Impacts             | 1) Foundations for<br>Energy Transition                               | 1.1) Energy Subsidy<br>Reform Facility                                       |
| Türkiye            | P151739  | TF0A9929        | Characterizing<br>the Declining CO2<br>Emissions from<br>Turkish Geothermal<br>Power Plants  | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables  |
| Türkiye            | P167364  | TF0A8499        | Türkiye: Advisory<br>Support for Türkiye<br>Smart Grid Options<br>and Generation<br>Planning | 1) Renewable<br>Energy, 2) Annual<br>Block Grants                     | 1.1) Energizing<br>Renewables, 1.2)<br>Energy Storage                        |
| Ukraine            | P146788  | TF0A7544        | Development of<br>Market Compatible<br>Renewable Energy<br>Framework in<br>Ukraine           | 1) Renewable<br>Energy, 2) Annual<br>Block Grants                     | 1.1) Energizing<br>Renewables, 1.2)<br>Energy Storage                        |
| Western<br>Balkans | P167499  | TF0A9044        | Integrated<br>Hydropower<br>Development in the<br>Drina River Basin                          | 1) Renewable<br>Energy, 2) Annual<br>Block Grants                     | 1.1) Hydropower<br>Development Facility                                      |
| Western<br>Balkans | P169389  | TF0B6619        | ECA Sustainable Heating Program – Regional: Accelerating Decarbonization                     | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector, 1.2)<br>Geothermal Direct<br>Use          |

| COUNTRY/<br>REGION | PROJECT #        | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY                         |
|--------------------|------------------|-----------------|--|---|--|
| GLOBAL             |                  |                 |  |   |  |
| Global             |                  | TF0A5090        | Lighting Global (Own-<br>managed)  | 1) Electricity Access   | 1.1) Off-Grid Solar                    |
| Global             | IFC-<br>00603829 | TF0B7756        | IFC Decarbonization<br>Advisory and<br>Investment<br>Transaction-Linked<br>Support for the<br>Industrial Sectors, II | 1) Accelerating<br>Decarbonization                                    | 1.1) Industrial<br>Decarbonization     |
| Global             | IFC-<br>00606704 | TF0B7381        | Technical and Economic Assessment of Investment Opportunities in Green Hydrogen                                      | 1) Accelerating<br>Decarbonization                                    | 1.1) Industrial<br>Decarbonization     |
| Global             | P145972          | TF0A7954        | City Energy Efficiency<br>Transformation   | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector      |
| Global             | P151262          | TF0A5068        | East Asia and Pacific<br>Gender and Energy<br>Facility   | 1) Annual Block<br>Grants, 2)<br>Foundations for<br>Energy Transition | 2.1) Closing Gender<br>Gaps in Energy  |
| LATIN AMERIC       | CA & CARIBBE     | AN              |  |   |  |
| Central<br>America | P169052          | TF0A5851        | Honduras: Toward<br>Cost-Reflective Tariff<br>Regulation for the<br>Power Sector                                     | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants | 1.1) Energy Subsidy<br>Reform Facility |
| Central<br>America | P169052          | TF0B4245        | Mobilizing Private Finance to Accelerate the Deployment of Clean and Efficient Cooling Solutions in Panama           | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants         | 1.1) Efficient and<br>Clean Cooling    |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA   | ESMAP PRIORITY  |
|--------------------|-----------|-----------------|--|--|---|
| Central<br>America | P169052   | TF0B5708        | Enabling<br>Environment for an<br>Energy Efficiency<br>Fund in El Salvador<br>and Costa Rica   | 1) Annual<br>Block Grants,<br>2) Accelerating<br>Decarbonization                         | 2.1) Zero Carbon<br>Public Sector, 2.2)<br>Efficient and Clean<br>Cooling |
| El Salvador        | P170089   | TF0B0563        | Increasing Power<br>Generation from<br>Geothermal<br>Resources in El<br>Salvador               | 1) Renewable<br>Energy, 2)<br>Accelerating<br>Decarbonization, 3)<br>Annual Block Grants | 1.1) Energizing<br>Renewables, 2.1)<br>Geothermal Direct<br>Use           |
| Latin<br>America   | P164403   | TF0A9587        | Analysis of Impact of<br>Electromobility Scale-<br>Up in the Brazilian<br>Power Sector         | 1) Accelerating<br>Decarbonization, 2)<br>Annual Block Grants                            | 1.1) Zero Carbon<br>Public Sector   |
| Latin<br>America   | P175621   | TF0B4424        | Implications of<br>Enhanced Regional<br>Electricity Trade<br>on Power Sector<br>Reforms in LCR | 1) Foundations for<br>Energy Transition  | 1.1) Energy Markets,<br>Connectivity and<br>Trade                         |
| Mexico             | P157932   | TF0B2149        | Design of Energy<br>Efficient Subsidy<br>Program for Low-<br>Income Housing in<br>Mexico       | 1) Accelerating<br>Decarbonization   | 1.1) Zero Carbon<br>Public Sector   |
| Mexico             | P173171   | TF0B2768        | Energy Efficient Cold-<br>Chain for Agriculture<br>in Mexico                                   | 1) Accelerating<br>Decarbonization   | 1.1) Zero Carbon<br>Public Sector   |
| Peru               | P171140   | TF0B2677        | Advisory Support<br>for the Power Sector<br>Modernization<br>Reform in Peru                    | 1) Annual Block<br>Grants  |   |
| Libya              | P167743   | TF0A8236        | Libya: Support for<br>Preparation of<br>Liquified Natural<br>Gas (LNG) Import<br>Component     | 1) Annual Block<br>Grants  |   |

| COUNTRY/<br>REGION | PROJECT # | TRUST<br>FUND # | PROJECT NAME  | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA                          | ESMAP PRIORITY                         |
|--------------------|-----------|-----------------|---|---|--|
| SOUTH ASIA         |           |                 |   |   |  |
| Bangladesh         | P161996   | TF0A7683        | Increasing the Sustainability and Efficiency of Fuelwood Supply Value Chain to Increase Access to Efficient and Clean Cooking in Bangladesh | 1) Clean Cooking<br>Fund  |  |
| India              | P168144   | TF0B0119        | India: Supporting<br>Himachal Pradesh<br>in Tapping its<br>Renewable Energy<br>Potential  | 1) Renewable<br>Energy  | 1.1) Energizing<br>Renewables          |
| India              | P168355   | TF0A5376        | India: Improving Agricultural Productivity and Energy Efficiency through Direct Benefit Transfer for Electricity to Farmers                 | 1) Foundations for<br>Energy Transition,<br>2) Annual Block<br>Grants | 1.1) Energy Subsidy<br>Reform Facility |
| Nepal              | P171183   | TF0A6655        | Solar Measurement Campaign in Nepal and Additional Budget for Renewable Energy Resource Mapping and Geospatial Planning                     | 1) Energy Data &<br>Analytics   | 1.1) Energy Data Hub                   |
| Pakistan           | P156972   | TF0A7073        | Pakistan: Punjab<br>Energy Efficient<br>Municipal Service   | 1) Accelerating<br>Decarbonization                                    | 1.1) Zero Carbon<br>Public Sector      |

# **ESMAP Activities Pending Approval, FY2022**

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|----------------------------|-----------|-----------------|--|--|--|
| COUNTRY/<br>REGION         | PROJECT#  | TRUST<br>FUND # | PROJECT NAME   | ESMAP THEMATIC<br>AND CROSS-<br>CUTTING AREA | ESMAP PRIORITY                           |
| AFRICA                     |           |                 |  |  |  |
| Botswana                   | P178822   | TBD             | Botswana:<br>Renewable Energy<br>Scale Up Support  | Renewable Energy                             | Energizing<br>Renewables                 |
| Guinea-<br>Bissau          | P174576   | TBD             | Guinea Bissau: Solar<br>Energy Scale Up<br>Support   | Renewable Energy                             | Energizing<br>Renewables                 |
| Mali                       | P176633   | TBD             | Off-Grid Solar Delivery for Rural Clinics  | Electricity Access                           | Improve Livelihoods<br>and Human Capital |
| Namibia                    | P179377   | TBD             | Namibia Renewable<br>Energy Scale Up<br>Support  | Renewable Energy                             | Energizing<br>Renewables                 |
| Niger                      | P174034   | TBD             | Niger Accelerating<br>Electricity Access<br>Project Support to<br>Clean and Efficient<br>Cooking | Clean Cooking Fund                           |  |
| Sao Tome<br>and Principe   | P177099   | TBD             | Electricity Supply<br>Transition Support   | Renewable Energy                             | Energizing<br>Renewables                 |
| EAST ASIA & PA             | ACIFIC    |                 |  |  |  |
| Pacific<br>Islands         | P152653   | TBD             | Developing<br>Renewable Energy<br>Storage System<br>for Pacific Island<br>Countries              | Renewable Energy                             | Energy Storage                           |
| EUROPE & CEN               | TRAL ASIA |                 |  |  |  |
| Europe and<br>Central Asia | P165651   | TBD             | ECA Sustainable<br>Heating Program   | Foundations for<br>Energy Transition         | Utilities for the Energy<br>Transition   |
| Europe and<br>Central Asia | P130013   | TBD             | ECA Sustainable<br>Heating Program   | Foundations for<br>Energy Transition         | Utilities for the Energy<br>Transition   |
| MIDDLE EAST 8              | NORTH AFR | ICA             |  |  |  |
| Morocco                    |           |                 | Fostering<br>Decarbonization of<br>Industrial Zones in<br>Morocco                                | Accelerating<br>Decarbonization              | Industrial<br>Decarbonization            |

#### ANNEX C

# **ESMAP PUBLICATIONS, FY2022**

## Regions

**AFR** Africa

EAP East Asia and Pacific
ECA Europe and Central Asia

LCR Latin America and the Caribbean MNA Middle East and North Africa

**SAR** South Asia Region

| ISBN, PUB NO.,<br>OR PROJECT NO. | COUNTRY/<br>REGION | TITLE   | AUTHOR/TTL  |
|----------------------------------|--------------------|---|---|
| Live Wire<br>No. 2022/121        | AFR                | Access to Clean Cooking and<br>Electricity: Righting the Policy Balance<br>in Sub-Saharan Africa and Fragile<br>Settings  | Sharmila Bellur, Paul Mathew,<br>Juliette Besnard   |
| Joint Publication                | AFR                | Closing the Loop on Energy Access in<br>Africa  | Global Battery Alliance, World<br>Economic Forum, the Energy<br>Storage Partnership, the Faraday<br>Institution, Vivid Economics, Öko-<br>Institut e.V. |
| P169041                          | AFR                | UPBEAT: Utility Performance and<br>Behavior in Africa Today   | Ani Balabanyan, Yadviga<br>Semikolenova, Arun Singh, Min A.<br>Lee  |
| P169041                          | AFR                | UPBEAT: Analyzing Foregone Cash to Improve Utility Performance  http://documents.worldbank.org/ curated/en/371961628830813641/ Analyzing-Foregone-Cash-to-Improve- Utility-Performance-Topical-Paper- Utility-Performance-and-Behavior-in- Africa-Today | Ani Balabanyan, Denzel J.<br>Hankinson, Stephen Nash, and Arun<br>Singh   |

| ISBN, PUB NO.,<br>OR PROJECT NO. | COUNTRY/<br>REGION | TITLE   | AUTHOR/TTL   |
|----------------------------------|--------------------|---|--|
| P169041                          | AFR                | UPBEAT: Catalyzing Utility Reform<br>in Sub-Saharan Africa – Quick<br>Wins Matter for Transparency and<br>Accountability  | Yadviga Semikolenova, lan Driscall,<br>Min A. Lee                      |
|                                  |                    | http://documents.worldbank.org/<br>curated/en/519011628831337787/<br>Catalyzing-Utility-Reform-in-Sub-<br>Saharan-Africa-Quick-Wins-Matter-<br>for-Transparency-and-Accountability-<br>Topical-Paper-Utility-Performance-<br>and-Behavior |  |
| P169041                          | AFR                | UPBEAT: Utility Performance and<br>Behavior in Africa Today - Summary<br>Report   | Ani Balabanyan, Yadviga<br>Semikolenova, Arun Singh, and Min<br>A. Lee |
|                                  |                    | http://documents.worldbank.org/<br>curated/en/440591628869078878/<br>Summary-Report   |  |
| P169041                          | AFR                | UPEAT: African Utilities during<br>COVID-19 - Challenges and Impacts  | Ani Balabanyan, Yadviga<br>Semikolenova, Denzel J. Hankinson,          |
|                                  |                    | http://documents.worldbank.org/<br>curated/en/683831628830335585/<br>African-Utilities-during-COVID-19-<br>Challenges-and-Impacts-Topical-<br>Paper-Utility-Performance-and-<br>Behavior  | Stephen Nash, and Christopher<br>Parcels                               |
| P175716                          | Azerbaijan         | Offshore Wind Development Program: Offshore Wind Roadmap for Azerbaijan   | Orucu, Ayse Yasemin; Whittaker,<br>Sean; <u>Leybourne, Mark Thomas</u> |
| P168255                          | Georgia            | Georgia Power Sector: Maximizing Finance for Development  | Artur Kochnakyan, Zhengjia Meng,<br>Joern Thorsten Huenteler           |
|                                  |                    | https://openknowledge.worldbank.<br>org/handle/10986/37733  |  |
| Live Wire<br>No. 2022/120        | Global             | Agrodem: An Open-Source Model<br>that Quantifies the Electricity<br>Requirements of Irrigation  | Alexandros Korkovelos, Bryan<br>Bonsuk Koo, Kabir Malik                |
| P169313                          | Global             | Assessing and Mapping Renewable<br>Energy Resources, Second Edition   | Energy Sector Management<br>Assistance Program                         |

| ISBN, PUB NO.,<br>OR PROJECT NO.      | COUNTRY/<br>REGION | TITLE   | AUTHOR/TTL   |
|---------------------------------------|--------------------|---|--|
| P171194<br>Technical Report<br>016/21 | Global             | Coal Plant Repurposing for Ageing Coal Fleets in Developing Countries   | Gireesh Shrimali and Abhinav Jindal  |
| Publications                          | Global             | Cooling Facility: Environmental and Social Sustainability Framework   | ESMAP  |
| P175150                               | Global             | Designing Public Funding Mechanisms in the Off-Grid Solar Sector (English)  | Rysankova, Dana; Miller, Charlie   |
| ADMIN                                 | Global             | Energy Sector Management Assistance Program (ESMAP) Annual Report 2021  | Lucie Blyth  |
| Joint Publication                     | Global             | From Procurement to Performance: Towards a Private Sector-Led, Service-Based Model to Scale Up Sustainable Electrification of Public Institutions | ESMAP, World Bank, and SEforALL  |
| P174100<br>Technical Report<br>017/21 | Global             | From Sun to Roof to Grid: Distributed PV in Energy Sector Strategies  | Alan David Lee, Zuzana Dobrotkova,<br>Rohit Khanna; Sheoli Pargal; Torrey<br>Howell Beek, Sandra Chavez,<br>Thomas Flochel, Tarek Keskes,<br>Simon Muller; Claire Nicolas, Chong<br>Suk Song           |
| P171194<br>Joint Publication          | Global             | Global Perspective on Coal Jobs<br>and Managing Labor Transition<br>out of Coal: Key Issues and Policy<br>Responses                               | Elizabeth Ruppert Bulmer, Kevwe<br>Pela, Andreas Eberhard-Ruiz, Jimena<br>Montoya  |
| P170090                               | Global             | Key Factors for Successful<br>Development of Offshore Wind in<br>Emerging Markets   | World Bank   |
| P174481                               | Global             | Measuring Energy Access: A Guide<br>to Collecting Data Using the Core<br>Questions on Household Energy Use  | Bonsuk Koo, Jessica Lewis, Elisa<br>Portale, Heather Adair-Rohani,<br>Gbemisola Oseni Siwatu, Amparo<br>Palacios-Lopez, Sydney Gourlay,<br>Ivette Maria Contreras Gonzalez,<br>and Alisha Noella Pinto |

| ISBN, PUB NO.,<br>OR PROJECT NO. | COUNTRY/<br>REGION | TITLE  | AUTHOR/TTL  |
|----------------------------------|--------------------|--|---|
| P174232                          | Global             | Opening Opportunities, Closing Gaps: Advancing Gender-Equal Benefits in Clean Cooking Operations                                 | Nathyeli Acuna Castillo, Yabei Zhang,<br>Caroline Ochieng, Norma Adams,<br>Inka Schomer, Jingyi Wu, Alisha<br>Noella Pinto, Jennye Greene, Ellen<br>Morris, and Magi Matinga  |
| P174488                          | Global             | Preparing Feasibility Studies for the Financing of Geothermal Projects: An Overview of Best Practices                            | Elin Hallgrimsdottir, Joerie Frederik<br>De Wit, Thrainn Fridriksson, Ari<br>Ingimundarson, Gundi Axelsson,<br>Benedikt Steingrimsson, Ingi<br>Ingason, and Olafur Arnason  |
| Joint Publication                | Global             | The Energy Progress Report 2022: Tracking SDG7   | World Bank, International Energy<br>Agency, International Renewable<br>Energy Agency, United Nations<br>Statistics Division, and World Health<br>Organization   |
| P172223                          | India              | Electric Mobility Market Assessment, Business Model and Action Plan in India   | World Bank  |
| Live Wire<br>No. 2021/119        | Indonesia          | Raising Rural Productive Uses of Electricity: A Case Study of a Successful Utility-NGO Partnership in Indonesia                  | James Finucane, Juliette Besnard,<br>and Raluca Golumbeanu  |
| P157314                          | MNA                | The Value of Trade and Regional Investments in The Pan-Arab Electricity Market: Integrating Power Systems and Building Economies | Ilka Fabiana Deluque Curiel, Victor Loksha, Waleed Saleh I. Alsuraih, Alexander Johannes Huurdeman, Emmanuel Py; Mohammed Qaradaghi, Debabrata Chattopadhyay, Abdulaziz Al- Shalabi, Doug Bowman, John R. Irving, Peter Meier, and Alona Kazantseva |
| IMPACT<br>Issue 26               | Mongolia           | Responding to the COVID-19 Crisis<br>in Mongolia with a Climate-Friendly<br>Central Vaccine Store                                | Sunny Kaplan  |
| P169313                          | Pakistan           | Leveraging Digital Finance to Scale<br>the Solar Home Systems Market in<br>Pakistan. Pakistan Sustainable Energy<br>Series       | Ermeena Malik, Barbara Ungari,<br>Oluwafemi Ogundipe, Maha Arshad,<br>and Umul Awan   |

| ISBN, PUB NO.,<br>OR PROJECT NO. | COUNTRY/<br>REGION | TITLE  | AUTHOR/TTL   |
|----------------------------------|--------------------|--|--|
| P175004                          | Philippines        | Offshore Wind Roadmap for the Philippines                                    | ESMAP - World Bank   |
| Live Wire<br>No. 2022/122        | Türkiye            | Opportunities for Direct Uses of<br>Geothermal Energy in Türkiye             | Oumaima Idrissi, Alumdena<br>Mateos Merino, Alper Baba, Elin<br>Hallgrimsdottir, and A. Yasemin<br>Orucu |
| Live Wire<br>No. 2021/118        | Türkiye            | Understanding CO2 Emissions from<br>Geothermal Power Generation in<br>Turkey | Oumaima Idrissi, Yasemin Orucu,<br>Elin Hallgrimsdottir, Almudena<br>Mateos Merino, and Serhat Akin      |
| P157376                          | Ukraine            | Learning from Power Sector Reform: The Case of Ukraine                       | Robert W. Bacon  |
| IMPACT<br>Issue 25               | Yemen              | Solar Systems Bring Light to Remote Areas of Yemen                           | Sunny Kaplan   |