

## Angola Project Proposal – TRAC 2 Programming 2022

### Purpose and Objectives

#### 2.Purpose:

*Specify how the CO intends to use the TRAC2 funds*

Access to affordable and sustainable energy in Angola remains a challenge; less than 45% of the population has access to electricity, with a lower rate in rural areas where wood and charcoal continue to be one of the most used forms of energy. Enhancing off-grid electrification at the community level is key to improve the standards of living of rural households - particularly for women who carry the highest burden of having no access to electricity (e.g. unpaid domestic work to seek alternatives forms of cooking fuel) - as well as to promote agricultural productivity and food security. Agriculture account for more than half of total employment but contribute to nearly 7 per cent of GDP and less than 1 per cent of total export. Moreover, between July and September 2021, around 1.32 million people experienced elevated levels of acute food insecurity, Integrated Food Security Phase Classification 3 or above.

Resources from TRAC 2, will enable the Country Office (CO) to:

- Identify and advance opportunities that contribute to **UNDP Strategic Plan and Africa Promise objectives on Energy**<sup>1</sup>.
- Enhance capacities of key national partners contributing to closing the energy access gap and a transition to a low-carbon energy future, contributing to National Development Plan targets of energy access to 50% by 2022.
- Electrify Off-grid communities with renewable energy sources to enable sustainable livelihood and economic growth.
- Strengthen and create, female led, small scale businesses opportunities and cooperatives by providing renewable energy solutions.

#### 3.Alignment with facility objectives:

*Specify how the purpose aligns with the objectives of TRAC2*

CO will use TRAC 2 Funds in order to enhance Energy Access in Angola, which currently stands at 42.7%, leaving an estimated 18,909,000 persons without access to clean and affordable energy.

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<sup>1</sup> “The first objective of UNDP is increasing energy access for those furthest behind. By speeding up investment in distributed renewable energy solutions, especially for those hardest to reach and in crisis contexts, it aims to increase access to clean and affordable energy for 500 million people.”

This is aligned with the Government's National Development Plan (PND) 2018-2022 of bringing electricity coverage at 50% by end of 2022, and with the Angola Energy Plan's target of 200 MW of renewable energy by 2025.

The initiative will contribute to three key strategic impact areas of the Strategic Offer for Africa 2022-25: i) structural transformation; ii) climate change mitigation and adaptation; and iii) affordable and sustainable energy.

#### 4. Alignment with regional priorities:

Sub-Saharan Africa is home to approximately 600 million people without access to clean, affordable energy, making the region a key focus of the UNDP's Strategic Plan 2022-2025 energy objective and scaled up energy offer, which seeks to provide access to clean and affordable energy to 500 million people through strategic partnerships and targeted stakeholder engagement.

The UNDP's Renewed Strategic Offer in Africa, or "Africa Promise", aims to "strengthen UNDP's position as Africa's premier enabler and integrator for the 2030 and the 2063 Agendas". Affordable and sustainable energy constitutes one of the six Strategic Impact Areas of UNDP's Africa Promise, focusing on energy interventions to play their role as enablers of development. RBA's Africa Promise pledged to provide at least 100 million people with access to Energy by the end of the current Strategic Plan.

The Regional Programme for Africa (2022-2025) constitutes the vehicle for realizing UNDP's Renewed Strategic Offer in Africa. The new Regional Programme will explicitly situate itself as a regional catalyst and incubator for people, prosperity, planet and peace. Within its priority outcome on prosperity, the Regional Programme will play a key role in contributing to supporting UNDP's new Strategic Plan.

The proposal is also aligned with the UNDP's Food & Agricultural Commodity Systems Strategy 2020-2030.

#### 5. Total amount requested:

*(cannot be less than \$350k per CO)*

USD 1,500,000

#### Expected Results

*The submitting CO should list the expected benefits and indicators for success.*

#### 6. Resource Mobilization

#### **Result 1: Broad-based financing options unlocked**

Energy access requires significant investments, in particular to finance the energy infrastructure required to provide energy services.

Blended finance, incentives and financial risk transfer mechanisms, can contribute to unlock the resources required to scale up investment in energy access.

UNDP is currently initiating the development of a new blended finance facility for Energy Access and Green Productive Use of Electricity in partnership with UNCDF and close coordination with UN-Energy and potential investors. Its objective is to de-risk and accelerate investment in energy access with a focus on productive use of electricity and will include a combination of Technical Assistance, financial risk transfer instruments and concessional finance. The Facility will build upon and complement the Africa Minigrids Program.

It is expected that the TRAC Resources will support the establishment of the adequate condition at the country-level to attract additional investments to close the energy access gap. These efforts will complement additional UNDP and partner activities on energy access, financing, and stakeholder engagement.

The activities supported by the TRAC resources, specifically the feasibility study and the pilot model, will identify concrete initiatives and demonstrate models within the country that could then leverage resources from Traditional donors, IFIs, Government Cost Sharing, and the Private Sector.

## 7.Resource Mobilization

### **Result 2: Private sector finance leveraged for the provision of renewable energy access for rural communities.**

Private sector leverage will be achieved through financing of small-scale renewable energy projects. UNDP will provide a partial CAPEX subsidy based on pre-defined milestones. It will be intended to limit the CAPEX subsidy at a maximum of 50% of the total CAPEX costs, but the level of subsidy will be defined based on the local circumstances<sup>2</sup>.

The most appropriate business model for the delivery of energy services will be determined by the distributed renewable energy service company on the assessment of the local circumstances and will be based on some of the options described here: (i) Pure Lease: A fixed period of usage and maintenance contract of the asset; (ii) Lease to Own: As per the above, but with ownership of the asset transferred to the client when fully paid up, generally at the end of the contract period; (iii) Pay as You Go- Third Party Ownership: payment of the electricity based on consumption, without transfer of the asset; (iv) Instalment sale: Sale paid over fixed period in fixed instalments.

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<sup>2</sup> If the intervention occurs in conflict zones or crisis setting, the CAPEX subsidy requirements may be higher

Through an open tender, the most successful bidder will be selected based on the lowest cost per kWh and best reliability of service, based on a specific expected level of demand. It is expected that the bidder will define the technical details of the systems, but the target communities will be identified by UNDP together with the government as well as the minimum targeted service level for each household and businesses. Standalone systems are excluded, innovative technologies that can scale based on potential increased demand of services are preferred.

## 8.Resource Mobilization

### *Result 3 (Optional)*

## 9.Programme Results

### *Result 1*

#### **Result 1: Energy access solutions identified and advanced**

Given the rich landscape of initiatives on energy both nationally and regionally, a key step in accelerating the development will be to conduct a strategic assessment of both high-impact entry points for UNDP and important partners at the country-level. This could include the following:

- a. Analytical roadmap;
- b. Sensemaking and systems thinking exercises with key stakeholders and necessary subsequent engagements;
- c. Partnership mobilization (UN-Energy and beyond);
- d. Investors Forum/Roundtable
- e. Pre-feasibility studies.

It is envisaged that work conducted by the Sustainable Energy Hub (analytics, expertise, partnerships, etc.) as well as conducted through UNDP/RBA flagship initiatives such as the Africa Minigrids Programme, Solar for Health, and other energy initiatives (national dialogues on Energy access, communities of practice and financial risk analysis) could be immediately leveraged and enhanced by TRAC resources.

The preceding activities' results will feed into a completed action plan.

Existing partnerships with national and local governments will be key to accelerate the implementation of the activities.

## 10.Programme Results

### *Result 2 (Optional)*

## **Results 2: Capacities of key national partners contributing to closing the energy access gap<sup>3</sup> enhanced.**

Capacity enhancement of key national partners has a multiplier effect on the other results listed herein and is key in ensuring sustainability of the key actions recommended.

Strengthened capacity could be immediately implemented using, inter alia:

- a. Embedded UNV/JPO in key public entities (e.g. Ministry of Energy or Rural Energy Agencies)
- b. Strengthening national coordination mechanisms (e.g. by convening, facilitating or otherwise supporting a national dialogue or concertation mechanism).
- c. Strengthen the capacity of local State authorities in energy installation and distribution licensing, supervision and inspection, as well as in energy infrastructure management.
- d. Support public and private vocational training entities with skills development and transfer for the local youth who will play critical role on installation and maintenance to the end users.

The Government of Angola has transferred competences from National (Ministries) to Sub-national Governments (Provincial and Municipal), and water and energy are one of the decentralized services. Although the transfer of competences is a remarkable achievement at this stage, however, local entities still need necessary capacity development and skills transfer to effectively exercise their duties to ensure full operationalization of the decentralization process of such services from public and/or public-private entities. This funding will have a catalytic effect by enabling capacities and skills of local entities on licensing, supervision, inspection, energy sources mapping and infrastructure management.

## 11. Programme Results

### *Result 3 (Optional)*

#### **Result 3: Off-grid female-led cooperatives and communities electrified with renewable energy sources to enable sustainable livelihood and economic growth**

Target communities that will benefit from this component are far from any national electricity supply (grid) and, thus, live mostly in the dark (Tier 1-2) and will be prioritized to benefit from integrated productive use opportunities and livelihood improvements and its dynamic effects on economic growth.

The off-grid renewable energy access projects will ensure the permanence of the transformational change by implementing renewable energy technologies, that are scalable, low-cost and reliable in the face of extreme weather and limited capacity for technical maintenance.

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<sup>3</sup> E.g. ministry of energy, rural electrification agency, etc

It is well documented that the provision of affordable and clean energy is a catalyst for development in the broadest sense, touching on a large proportion of SDGs. The electricity provided will enable lights to be on after dark, extending hours for educational, cultural, health and business activities. It will open-up myriad of new income-generating activities for the rural communities.

Specifically, female-led cooperatives, small business and small-holders' farmers (e.g. solar powered irrigation system, conservation facilities) will have their production systems enhanced, opening up opportunities for value addition into their respective products and services with low-cost and reliable source of power.

#### 12. Other Benefits:

The provision of renewable energy will directly and positively impact at least 10 SDGs, some of the direct SDG co-benefits includes: SDG1 – Generate additional income; SDG2 - increase in agriculture production/ crop yields (eg. off-grid solar water pump, local processing and storage of food for longer period); SDG3 - Replacing kerosene with solar lighting/home system (SLS/SHS) brings health benefits; SDG4 – contributes to inclusive and equitable education by unlocking study hours/productive hours and improve safety; SDG5 – help advance on gender equality by creating opportunities for women through entrepreneurship and savings from kerosene use; SDG7- Access to clean and affordable energy; SDG8 - By improving electricity access, local businesses thrive and bring employments; SDG9 - Enabling access to affordable solar power with new finance and tech innovations; SDG13 - Reduce GHG emissions by replacing carbon-intensive energy sources; and SDG17- Governments, investors, funders and businesses working together to build an off-grid solar market.

#### Indicators of Success

*The submitting CO should identify specific indicators for each result area, being as specific as possible. Each indicator should include a baseline (if available), target, source of data, and timeline.*

#### 13. Indicator 1:

#### Resource Mobilization:

**RM Indicator 1: Amount of mobilized resources based on the scale up of the proven Energy Business Model (Includes Private Sector Co-financing and Grants for UNDP) and based on the feasibility studies and developed action Plan**

#### 14. Baseline:

USD 0

15.Target:

1. USD 4 million (based on Energy Business Model)
2. USD 25 million (based on feasibility studies and action plan)

16.Source of Data:

CO Resources Mobilized under Energy

17.Timeline for Target:

12 -24 months

*Note: \*some of the actions will be followed up with upcoming projects (soft and hard pipelines)*

Add Indicator *(if applicable)*

*Additional Indicators can be added here.*

18.Indicator 2 *(Optional)*:

**Programme Results:**

**PR Indicator1: Number of people who gained access through cooperatives to clean, affordable, and sustainable energy (data disaggregated by age and gender)**

**PR Indicator2: Number of innovative financing or policy models for energy access identified**

**PR Indicator 3: Number and type of public institutions officials trained on energy services management (licensing, oversight, monitoring, etc.) and # of local people trained at vocational training institutions (data desegregated by age and gender)**

**PR Indicator 4: Increase (in kilowatt) in installed renewable energy capacity per technology (solar and battery storage)**

**PR Indicator 5: Increase in energy consumption and/or demand, disaggregated by user group (businesses, productive uses)**

19.Baseline:

1. 0
2. 0
3. 0

4. to be established based on initial assessment on the needs per specific productive uses

5. 0

20.Target:

1. at least 3 cooperatives in each province (number of cooperatives and % of female beneficiaries) \*(in average each cooperative has 80 members)

2. 2 models

3. TBD

4. 358 KW

5. tbd depending on user group

21.Source of Data:

Project implementation data

Survey (initial, then post-activity)

22.Timeline for Target:

12 months

## Implementation

Key Activities, Costs, and Timeline:

*The submitting CO should identify the implementation plan during 2022-23. The plan should include activities, estimated costs and timelines.*

23.Activity 1:

Activity Description

### **Result 1 - Energy Pledge opportunities identified and advanced**

- a. Analytical roadmap.
- b. Sensemaking and systems thinking exercises with key stakeholders and necessary subsequent engagements.
- c. Partnership mobilization (UN-Energy and beyond).



- d. Investors Forum/Roundtable.
- e. (Pre-)feasibility studies.

**Result 2 - Capacities of key national partners contributing to closing the energy access gap enhanced**

- Full-time position 12 months
- 12 months facilitating or supporting national coordination mechanism
- Technical and vocational education and training (TVET) services capacity enhanced to better respond on potential demand for installation and maintenance of solar panels and electrical systems
- Support national and sub-national government institutions capacity development and skills transfer for effective management of energy sector services under the decentralized context

24. Cost

1. USD 250,000
2. USD 75,000

25. Timeline

1. March to December 2022
2. March 2022 – March 2023

26. Activity 2 (Optional):  
Activity Description

**Result 3 - UNDP Country Office technical expertise on energy to advance UNDP Energy Pledge is strengthened**

- Technical expertise – fees (IC/IPSA/NPSA)

**Result 4 - Off-grid communities electrified with renewable energy sources to enable economic growth**

- Tender of private sector investor through RFP (Global PSU)
- Communities supported to identify and develop productive use activities
- Innovative energy solutions installed, and communities trained
- Electricity tariff setting and payment modalities defined, tested and successfully installed

## Result 5 - Project management, Monitoring & Evaluation

### 27. Cost

3. USD 150,000

4. USD 900,000

5. USD 125,000

### 28. Timeline

3. March 2022 – March 2023

4. April – December 2022

5. March 2022 – March 2023

### Key Partners

*The submitting CO should identify the key government partners and/or other development partners, along with a description on the role of the partner in the activities and if/how they will contribute to the project.*

#### 32. Partner 1:

In terms of capacity strengthening for national partners, the following institutions supporting energy access in the country are key:

1. Ministry of Energy and Waters – National Directorate of Renewable Energy and Rural Electrification.
2. Ministry of Agriculture and Fisheries.
3. Ministry of Public Administration, Employment and Social Affairs - National Institute for Employment and Vocational Training.
4. Provincial Governments of Huíla and Benguela.

#### 33. Role Description

National and sub-national governments institutions are expected to play a key role in activities listed under Result 1&2, including in identifying stakeholders, sharing data and analytics, providing assistance in convening investors forum/roundtable, etc. With decentralized management of energy services, they will also be direct beneficiaries from capacity development and skills transfers activities.

#### 34. Partner 2 (Optional):

Sustainable Energy Hub, RBA/RBAS, partner institutions (IRENA, SEforAll)

### 35. Role Description (Optional)

Stakeholder mapping will be conducted at inception. Internally, key stakeholders will involve the Sustainable Energy Hub, RBA/RBAS, partner institutions (IRENA, SEforAll) together with other key initiatives on Energy Access (e.g. AMP Regional Project, Community of Practice). These partners will bring global and regional expertise to the project, which will consist of good practices from similar projects, expertise on financing instruments / models, and identification of technology suppliers if not available locally through necessary competitive process.

### 36. Partner 3 (Optional):

National Institute for Employment and Vocational Training (INEFOP).

Salesians of Don Bosco.

Ação para o Desenvolvimento Rural e Ambiente (ADRA).

### 37. Role Description (Optional)

Partnership with INEFOP and Salesians of Don Bosco to strengthen the technical and vocational education and training (TVET) services related to the installation and maintenance of solar panels and electrical systems. These centers will be training local youth, who are expected to be locally available resource to provide technical services to the beneficiaries on matters related to installation and repairs.

### Risks

38. The submitting CO should identify the risks associated with the project. This could include the risks associated with key partners, factors that may contribute to achievement of results, availability of data, and any other relevant factors.

<b>Risks</b>	<b>Probability</b>	<b>Impact</b>	<b>Mitigation strategy</b>
Low engagement from key external partners	Medium	Medium	Identify and engage with core stakeholders at early stage to enable opportunities to co-plan/co-design some of the planned activities
Willingness and ability to pay for electricity	Medium	High	Mitigation Action: Investment should primarily be directed to support productive use activities (e.g.

			small business, farming).
Rural community fail to take sufficient ownership of the project's targets	Medium	High	Create awareness through success stories of similar initiatives in the region
Improper disposal and recycling of PV panels and system components	Medium	High	Develop an Environment Management Plan (EMP) for PV panels and Balance of System (BoS)
Lack of demand for productive use of electricity they need to undertake new production methods and establish access to markets for these products	Medium	High	Technical assistance to establish new productive uses and market access, lose working relationships with chiefs and community leaders
COVID-19 pandemic persistence	High	Medium	Guidance and protocols will be established to reduce risk of exposures to COVID-19

Proposal to focus on two communities in the municipalities of Humpata (Huila) and Cubal or Dombe Grande (Benguela)

#### Contacts

39.CO Focal Points

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