

Libyan Electricity Sector Stabilization and Transition Support (LESST) **MPTF OFFICE GENERIC ANNUAL PROGRAMME¹ NARRATIVE PROGRESS REPORT** **REPORTING PERIOD: 1 JANUARY – 31 DECEMBER 2020**

<p align="center">Programme Title & Project Number</p> <ul style="list-style-type: none"> Programme Title: Libya Electricity Sector Stabilization and Transition Support (LESST) Programme Number IcSP/2020/419-767 MPTF Office Project Reference Number:³ 00125845 	<p align="center">Country, Locality(s), Priority Area(s) / Strategic Results²</p> <p>Tripoli, Libya</p> <p>UNDP Strategic Plan Output 3.4: Functions, financing and capacity of rule of law institutions enabled, including to improve access to justice and redress.</p> <p>UNDP Strategic Plan Output 3.5: Communities empowered and security sector institutions enabled for increased citizen safety and reduced levels of armed violence.</p>
<p align="center">Participating Organization(s)</p> <ul style="list-style-type: none"> UNDP and UNEP 	<p align="center">Implementing Partners</p> <p>Ministry of Planning Ministry, Ministry of Finance and the State Owned Enterprises for electricity (Gecol), water supply (GMMRA) and oil production (NOC), World Bank, USAID, and the European Commission</p>
<p align="center">Programme/Project Cost (US\$)</p> <p>Total approved budget as per project document: 649,153</p> <p>MPTF /JP Contribution⁴:</p> <ul style="list-style-type: none"> UNDP: 345,119 UNEP:304,034 <p>Agency Contribution</p> <ul style="list-style-type: none"> by Agency (if applicable) <p>Government Contribution</p> <p>Other Contributions (donors)</p> <p>TOTAL: 649,153</p>	<p align="center">Programme Duration</p> <p>Overall Duration: 18 months</p> <p>Start Date⁵ (01.01.2021)</p> <p>Original End Date⁶ (30.06.2022)</p> <p>Current End date⁷(dd.mm.yyyy)</p>
<p align="center">Programme Assessment/Review/Mid-Term Eval.</p> <p>Assessment/Review - if applicable <i>please attach</i></p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Date: dd.mm.yyyy</p> <p>Mid-Term Evaluation Report – if applicable <i>please attach</i></p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Date: dd.mm.yyyy</p>	<p align="center">Report Submitted By</p> <ul style="list-style-type: none"> Name: Title: Participating Organization (Lead): UNDP Email address:

¹ The term “programme” is used for programmes, joint programmes and projects.

² Strategic Results, as formulated in the Strategic UN Planning Framework (e.g. UNDAF) or project document;

³ The MPTF Office Project Reference Number is the same number as the one on the Notification message. It is also referred to as “Project ID” on the project’s factsheet page the [MPTF Office GATEWAY](#)

⁴ The MPTF or JP Contribution, refers to the amount transferred to the Participating UN Organizations, which is available on the [MPTF Office GATEWAY](#)

⁵ The start date is the date of the first transfer of the funds from the MPTF Office as Administrative Agent. Transfer date is available on the [MPTF Office GATEWAY](#)

⁶ As per approval of the original project document by the relevant decision-making body/Steering Committee.

⁷ If there has been an extension, then the revised, approved end date should be reflected here. If there has been no extension approved, then the current end date is the same as the original end date. The end date is the same as the operational closure date which is when all activities for which a Participating Organization is responsible under an approved MPTF / JP have been completed. As per the MOU, agencies are to notify the MPTF Office when a programme completes its operational activities.

EXECUTIVE SUMMARY

This UNDP and UNEP Joint Programme in Libya builds on an ongoing international and national working partnership, focused on both maintaining critical electricity and electrically power water supply services and commencing a national transition to more sustainable forms of electricity generation and consumption.

As of Q4 2021 the partnership has already secured an early significant impact, via technical assistance to the national electricity utility (Gecol) that underpinned the greatly improved performance of the Libyan national grid in summer 2021. The partnership has also needed to flexibly tune its approach in response to constant changes in the national context: some activities were partly forestalled and so resources (essentially the time of the expert team) were rapidly diverted to emerging opportunities which are still unfolding.

I. Purpose

- Provide the main objectives and expected outcomes of the programme in relation to the appropriate **Strategic UN Planning Framework (e.g. UNDAF) and project document (if applicable) or Annual Work Plan (AWP).**

Libya has a completely state-owned electricity sector, with generation, transmission, and distribution under the auspices of the General Electricity Company of Libya (GECOL). Before the revolution of 2011, Libya had one of the highest electrification rates in Africa, enough for Libya to export electricity to Egypt. During the post revolution period, the energy consumption in Libya has been increasing in a manner that is higher than would be proportionate to its demographic growth.

This is due to increasing inefficiency in production, distribution and use, low tariffs, high commercial losses, and a heavy subsidy burden, as well as significant misappropriation due to fuel smuggling and unauthorized diversion of public services. Moreover, as security weakened after the revolution, the energy infrastructure suffered from damage, vandalism, and theft. The absence of equipment manufacturers and skilled foreign contractors on the ground in Libya also critically affects the repair and maintenance of the affected facilities and completion of existing projects. The damaged infrastructure is not capable of producing the requested electricity to all the areas, resulting in poor quality of supply and outages of several hours each day. This is having a huge impact on the delivery of basic services, disrupting operation of health, education, and water and sewage treatment facilities, resulting in public discontent, social tensions, and conflict in the major cities.

Urgent steps to strengthen electricity sector performance are needed to improve consumer service delivery, foster economic growth, relieve fiscal pressure of subsidies, and to eventually attract private sector investments for expansion of the sector itself. Importantly, Libya boasts of significant renewable energy potential that remains severely unutilized. Renewable power from wind, solar photo-voltaic, and Concentrated Solar Power projects can be an economically attractive substitute for conventional energy generated by using fossil fuels, which can be instead exported (or their import avoided) to obtain a higher economic return, while contributing to local and global environmental benefits.

The project outcome is the support to the stabilization, reform, and transition of the national electricity sector. This is structured around 3 outputs that are designed along the following areas:

Output 1: The operational performance of the national electricity grid is stabilized in 2021 and improved in 2022 – UNEP lead.

Output 2: National policy and governance is advanced in the electricity sector support (transition to sustainability) – UNDP lead.

Output 3: The Tripoli UNH project proposal is initiated, providing a forum for resolution of longstanding national obstacles to energy project financing and approvals (UNEP led and co-financed) – UNEP lead

II. Results

Progress at the outcome level was mixed but overall, surprisingly positive in the context of Libya in 2020-21. The reduction in hostilities in Q3 2020 and the maintenance of a tense ceasefire enabled the Government of Libya to regroup on a number of fronts including the energy sector.

The interim parliament, executive office and high-level national bodies created in 2020 were however collectively unable to agree a new national budget for 2021 and most attention was focused on the peace process. As a result, there were effectively no policy level or regulatory improvements noted in the energy sector in 2021.

In contrast, significant authority and resources were made available to the interim executive office (centred the Prime Minister's Office (PMO)) and other relatively stable bodies such as the Central Bank of Libya. This enabled substantial practical action in the energy sector in the form of project budget approvals and re-starting existing contracts and Letters of Credit.

In parallel, the key state owned entities, Gecol, NOC and MMRA, were able to roll over prior budgets and maintain operations, albeit with substantial difficulties remaining on project funding. The Renewable Energy Authority of Libya (REAOL) has also increased its activities. Finally, both global and national interest in all energy topics, including energy transition and climate change, reached an all-time high in 2021.

The net result was a flurry of project oriented funding and startup activities in the energy and electricity sectors. Much of this was oriented fully towards the fossil fuel economy and gas and oil fired electricity generation, but renewable energy and now energy efficiency is now gaining more attention.

The forecast for 2022 is for a continuation of the current trends- until the removal of the mandate of the interim executive office, via elections or otherwise. Thereafter, a period of turbulence and limited progress is anticipated irrespective of the election results, as the changes in key personnel and onboarding process is expected to take up to several months. Progress thereafter is completely dependent upon the capacities and motivations of the new government. The potential return to armed conflict is a negative wildcard that must also be considered.

In this context, at present the UN is focusing on helping secure whatever progress is feasible with the current interim executive office and the state-owned entities, particularly REAOL and Gecol.

OUTPUT 1.1: The operational performance of the national electricity grid is stabilized in 2021 and improved in 2022

UNEP technical assistance to Gecol on national grid stabilization started in Q4 2020, in close partnership with the USAID funded Libya Public Sector Financial Management team. The first output was a joint Gecol-UN-USAID-EC badged grid stabilization programme document, released in January 2021, which forecast grid collapse in 2021 -2023 in the absence of urgent intervention.

An organizational diagnostic of Gecol indicated the most urgent internal weak point with respect to stabilization was its central plant maintenance and overhaul procurement and contract management team. A US\$1 billion long term backlog of preventative maintenance of the gas and oil fired power generation plants, combined with a lack of modern management tools, resulted in a serious bottleneck in repairing and restarting the damaged plants and keeping the remaining power plants in operation.

In response, UNEP rapidly built an interim power plant management database (online in English and Arabic) and trained Gecol in its use and thereby accelerated contract management. In addition, LPFM, UNEP and Gecol jointly developed and rolled out a transparent and fair load shedding schedule, to distribute the disruption of scheduled power cut across over 80 municipal sized circuits. In addition, Gecol was supported in greatly improving and increasing its public outreach, communicating the need for energy conservation and warning of load shedding in advance.

In summary of the impact, in summer 2020, the national grid suffered 16 serious blackouts, protests and several violent incidents, whilst in summer 2021 it suffered only 1 blackout and no serious incidents. This increased grid stability in turn underpinned social and economic stabilization efforts across Libya. The increase in power plant peak availability from 47% to 74% also places Gecol in a much better position for the coming 2021 winter and 2022 summer demand peaks.

The current EC-UNEP allocation for this work is forecast to reach 80% completion end of June 2022. The default proposal to the EC is a no-cost extension of extend the existing TA support delivered by UNEP to Gecol for a further 6months.

Detailed activity results under Output 1:

- Activity 1.1. Joint development and costing of an urgent Gecol engineering repairs list and associated workplan, including facilitation of Gecol-GoL negotiations with international vendors to enable them to restart critical works.

Progress: Complete

This activity was fully and successfully completed by end Q2 2021. The results provided critical input to Gecol's plans for 2021 and for the follow-on activities

- Activity 1.2. Facilitation of GoL financing of the repair workplan and tracking of fund disbursement and procurement.

Progress: Ongoing

This activity is largely completed. Facilitation of GoL financing of US\$ 350M was delivered via the production of a detailed programme document and budget: The Libya Emergency Grid Stabilization Programme. This was presented by Gecol to the PMO and other key players in the GoL.

2022 forecast: Tracking of fund disbursement and procurement is now managed manually by Gecol and it is being transferred to the UNEP generated database and online tool. This transfer work should be 100% by June 2022, with routine but essentially permanent management obligations for Gecol thereafter.

- Activity 1.3. Facilitation of a Gecol-GoL owned national and subnational load shedding schedule with municipalities and other groups

Progress: Completed

This activity is completed on the UNEP side but the work continues with other partners. The load shedding schedule was developed by Gecol with USAID and UNEP support and negotiated with over 80 municipalities and sub-districts. The schedule successfully managed the grid overload challenge for most of the 2021 summer peak.

2022 forecast: Load shedding for the winter peak started in December and is expected to continue for 3 months. Load shedding for the summer peak is anticipated to start end June 2022. A revised schedule is required for this period.

- Activity 1.4. Facilitation of a MMRA and Gecol project plan for improving MMR electrical self-sustainability and demand reduction
Progress: yet to start
2022 forecast: This activity is scheduled for Q1 and Q2 2022.
- Activity 1.5 Joint analysis of interim results of all intervention options and development of a high-level national masterplan for stabilization by end 2021
Progress: Ongoing
A focus on urgent grid stabilization and a lack of progress on political fundamentals has worked against Gecol being able to generate and present any form of masterplanning. Gecol, the UN and USAID are continually analyzing the results of interventions to date.

2022 forecast: In any event Gecol needs to present renewed requests for funding to remove the maintenance backlog and address other stabilization related issues. Given the election uncertainty, it is unclear what form and timing of submission will be possible in Q1 2022, and the resultant outcome. As a minimum, the UN and USAID will support the development of a plan and a funding proposal to be presented by Gecol.

In addition, UNEP will switch efforts towards development of an energy strategy white paper, that will also cover the topic of national level electricity sector stabilization. To complete , this UNEP will request a no-cost extension to end 2022.

Output 2: National policy and governance is advanced in the electricity sector support (transition to sustainability)

As discussed above, the national political setting in 2021 proved highly unsuitable for advancing policy and governance in a traditional manner. However, the UN was able to start to build a foundation for progress. This was mainly achieved by establishing relationships with many of the key national stakeholders and providing demand driven and project oriented technical assistance. The universal principles of good energy strategy, policy and regulation are embedded in all of the TA provided, thereby providing an avenue for gradually influencing the petro-state culture developed over the last 40 years.

Given the political forecast (as per above) the proposed approach for January – June 2022 is to continue with a two-track approach:

- Continued support on pioneer projects, working at a senior level to facilitate financing and approvals
- Reinforcing the work on a UN Libya energy strategy white paper (co-financed by the UK, led by UNEP and now scheduled for completion in Q4 2022).

Detailed activity results under Output 2:

- Activity 2.1. Gecol operational management analysis
Progress: Complete
This activity was completed in part in Q1 2021, as input to the Output 1 activities. A deeper analysis of Gecol's operational structure is deferred until momentum and a clear rationale for reform of Gecol is visible. At present the safer route to stabilization appears to be interim reinforcement of the existing sub-optimal but still functional structure and processes.

- Activity 2.2. A progress review, update, and ongoing implementation support for the Electricity Sector Reform roadmap
Progress: Ongoing
This activity will expand in Q1 and Q2 and focus on supporting UN Libya energy strategy white paper and the recently formed Electricity Committee formed by the National Economic and Social Development Board (NESDB)..

OUTPUT 3: National policy and governance is advanced in the electricity sector support (transition to sustainability)

The Tripoli UN House proposal is still at the early planning concept stage and is not financed, so it is too early to intervene with energy infrastructure plans. The main UN facility in Tripoli is the existing leased OEA compound in northeast coastal Tripoli, so the UNEP feasibility work has focused on this site.

To date, the indicators for feasibility for a renewable energy project at or linked to this site are comprehensively negative. The facility is leased on a serviced basis, with the landlord also supplying power and water. This has taken the option of investment by the UN largely off the table, as all assets are externally owned. In addition, the site is relatively crowded, with only rooftop space available for PV installations.

In contrast, there is clear potential for the UN to internally improve its own operational energy efficiency. As result, UNEP is closing out its RE focused feasibility work and pivoting to provide some limited energy efficiency technical assistance to the UNSMIL engineering team in charge of managing the site. This work will be integrated into the larger EE Output B, using the site as a case study to illustrate options and benefits of interventions such as thermostats, timers and upgraded air conditioning.

Note that negative results for energy investment feasibility studies are not considered failures. They are instead designed to help avoid the much more expensive and damaging failure of unviable projects.

Challenges, lessons learned & best practices

The two primary challenges encountered to date were the ongoing political instability and the multiple governance deficiencies inherent in the current interim government structure. The interim structure and processes lack transparency and appropriate checks and balances – and a viable mechanism to develop, approve and finance multi-year projects and reforms. This environment thereby constrains the impact of technical assistance and policy support work, which is the primary implementation model for LESST.

One example of good practice was the speed of mobilization of the work for Output 1, which was focused on urgent assistance on electrical grid stabilization. The project was able to capitalize on both an existing team and existing partnership already well embedded with the Government of Libya. This effectively removed the normal 6-12 month processes of team mobilization and partnership development.

Qualitative Assessment

The Programme has already achieved its first and critical outcome, via Output 1 The early rapid assistance on electrical grid stabilization helped Gecol deliver a radical improvement in performance in 2021 compared to 2020. In the summer of 2020, the country experienced 16 national scale extended blackout: in 2021 it experienced only 1. The greatly improved grid performance in turn contributed to post-conflict stability and early recovery.

Despite the early very positive progress and results, it is forecast that the Programme will struggle to fully achieve all Outputs, due to the ongoing difficult political and conflict background in Libya. Constant tuning of the technical assistance effort is planned to direct efforts where progress is assessed as still feasible and to pull back where chronic or structural barriers are diluting the impact of the project.

ii) Indicator Based Performance Assessment:

Using the **Programme Results Framework from the Project Document / AWP** - provide an update on the achievement of indicators at both the output and outcome level in the table below. Where it has not been possible to collect data on indicators, clear explanation should be given explaining why, as well as plans on how and when this data will be collected.

	<u>Achieved</u> Indicator Targets	Reasons for Variance with Planned Target (if any)	Source of Verification
Outcome 1⁸ Indicator: Baseline: Planned Target:			
Output 1.1 The operational performance of the national electricity grid is stabilized in 2021 and improved in 2022 Indicator 1.1.1 Development of and substantive progress on a Gecol fleet turnaround Work Plan. Baseline: No workplan available Planned Target: Workplan approved Indicator 1.1.2 Subnational load shedding schedule (LSS) implemented Baseline: Planned Target: 50% completion Indicator 1.1.3 Development of a 2022+ national grid stabilization plan (GSP) Baseline: No Plan Planned Target: Plan accepted	1.1.1 Workplan approved		LEGSP WP & Taskforce Meeting minutes
	1.1.2 100% completion. Load shedding schedule operational		Gecol monthly Ops
	1.1.3 25% Grid stabilization chapter in overall energy strategy report in development	Gecol still in early stage implementation of urgent stabilization and not capable of developing a longer term plan. Planning work redirected to support the NESDB policy committee and to the UN White Paper	Grid stabilization plan & Meeting minutes

⁸ Note: Outcomes, outputs, indicators and targets should be **as outlined in the Project Document** so that you report on your **actual achievements against planned targets**. Add rows as required for Outcome 2, 3 etc.

<p>Output 1.2 National policy and governance is advanced in the electricity sector support (transition to sustainability)</p> <p>Indicator 1.2.1 Electricity Sector Reform roadmap reviewed Baseline: Electricity Sector Reform roadmap Planned Target: Revision of Electricity Sector Reform roadmap</p> <p>Indicator 1.2.2 Analysis of the Gecol's operational management plan finalized Baseline: Absence of Gecol's operational management plan Planned Target: Development of Gecol's operational management plan</p> <p>Indicator 1.2.3 Electricity Sector Reform roadmap's recommendations and action plan finalized and presented to the Government of Libya Baseline: Absence of current roadmap and action plan Planned Target: Electricity Sector Reform roadmap's recommendations and action plan finalized and presented to the Government of Libya</p>	1.2.1 Revision of Electricity Sector Reform roadmap	50% completion. Roadmap reviewed and key elements integrated into NESDB electricity committee support work.	Electricity Sector Reform roadmap document
	1.2.2 Development of Gecol's operational management plan Cancelled – resources redirected to 1.2.3	Gecol not willing to cooperate in deeper internal reform processes whilst the GoL interim government constrains Gecol's capacity and budget and operational stresses remain very high.	Gecol's operational management plan document
	1.2.3. Electricity Sector Reform roadmap's recommendations and action plan in progress	NESDB electricity committee support work will include reform and action plans, by end 2022	Electricity Sector Reform roadmap's recommendations and action plan document
<p>Output 1.3 National policy and governance is advanced in the electricity sector support (transition to sustainability)</p> <p>Indicator 1.3.1 The Tripoli UNHSE project proposal is initiated, providing a forum for resolution of longstanding national obstacles to energy project financing and approvals (UNEP led and co-financed) Baseline: NIL Planned Target: Feasibility study</p>	Feasibility study Completed – in summary	Study completed – with early negative findings. So next stage will not go ahead. Resources redirected to 1.1.13	Project feasibility study – Completion report-Note to File.

iii) A Specific Story (NA)

III. Other Assessments or Evaluations (NA)

IV. Programmatic Revisions (NA)

- Indicate any major adjustments in strategies, targets or key outcomes and outputs that took place.

V. Resources

As of end 2021 the Programme mobilized an additional GBP 500,000 or US\$650,000 equivalent. These funds were secured by UNEP from the Government of the UK. The funds are being used for additional output (Output 3), but being direct funds, they are not managed or reported as part of the Joint Programme.