This project is funded by the European Union

TAF Newsletter #13 | July 2018

The EU's Technical Assistance Facility (TAF) for Sustainable Energy

What's new: Field facts and findings

Lebanon: Sustainable Energy Stocktaking mission

With 92% of customers without access to reliable/full time electricity supply, Lebanon's chronic electricity deficit needs to be addressed. A TAF stocktaking mission confirms that renewable energy and energy-saving practices offer significant potential.

The Gambia: Solar PV battery systems for social infrastructure

The TAF team is discussing the institutional setting, scenarios, and pre-feasibility work on how to implement an on-grid and off-grid solar photovoltaic-battery system for over 1000 schools and 100 health facilities in The Gambia.

Mauritania: Institutional Reforms for the Electricity Sector

Mauritania is becoming a leader in the development of renewable energy. The Mauritanian Government has requested EU support to engage in institutional, legal and regulatory reforms to ensure the best conditions for energy supply, sustainable development, and a potential lead exporter of clean energy in the regional market.

What's next: Upcoming missions

- **Bangladesh**: Market Potential and Funding Opportunities for Renewable Energy projects
- **Papua New Guinea**: Sustainable Energy Needs - Opportunities For Productive Uses
- **Nigeria**: 'Jigawa Energy City' to diversify the energy mix of the country
- **Ghana**: 10 MWp solar power plant to support sustainable agriculture

What we do: The EU's Technical Assistance Facility for Sustainable Energy

Focus on: Central and West Africa

Who's who: Meet the team

'The EU's Technical Assistance Facility for Sustainable Energy' newsletter covers items of news from all the countries of operation of the EU TAF: East & Southern Africa, West & Central Africa, East & South Neighbourhood, Asia & Central Asia, Latin America, the Caribbean and the Pacific.

If there is a particular topic that you would like to see covered in future newsletters, please write to us. We welcome your feedback!

With our best wishes,

The TAF teams

What's new: Field facts and findings

Lebanon: Sustainable Energy Stocktaking mission

Activity area: Initial stocktaking and policy assessment

With 92% of customers without access to reliable/full time electricity supply, Lebanon's chronic electricity deficit needs to be addressed. A TAF stocktaking mission confirms that renewable energy and energy-saving practices offer significant potential.

The EU cooperation with Lebanon on energy - and not only - is critical for the development of the country. Over one-third of Lebanese households are considered poor or vulnerable. Lebanon currently also hosts the largest number of refugees per capita in the world (around 1.6 million people, nearly a quarter of its population), mostly from Syria since the conflict broke out in 2011 and from Palestine. Lebanon has one of the highest levels of State debt in the world, facing enormous political, economic and security challenges.

Against this backdrop, the chronic electricity deficit, whereby 92% of customers are without access to reliable/full time electricity supply, represents one of the major inhibitors of socio-economic growth.

A new TAF stocktaking assignment provides an in-depth assessment and analysis of the Sustainable Energy sector policies and regulatory framework in Lebanon, in the form of a detailed Country Fiche on Sustainable Energy with a focus on Energy Efficiency, Renewable Energy and Sustainable Energy Investment and Financing. Another specific objective was to follow-up the application and impacts of energy related reforms, assess EU and EU Member States' cooperation programmes, projects and initiatives on Sustainable Energy, and identify relevant programmes launched by other donors.

Developing the Country Fiche for Lebanon

The TAF expert team has undertaken an overall, transversal and precise in-depth policy assessment and analysis of the Sustainable Energy sector and policies in Lebanon. The TAF team also held discussions and meetings with the representatives of the national and local authorities of Lebanon, other key stakeholders, energy utilities, financing institutions, main donors and IFIs, professional associations, research centres, SMEs, developers and potential investors, etc.

The EU is the largest energy donor in Lebanon, and has developed and funded several sustainable energy project and programmes. Here, under the EU regional programme "Sustainable Urban Demonstration Projects (SUDEP) South" – a Field Visit of the team to Baakline- Lebanon

This project is funded by the European Union

What's new: Field facts and findings

Lebanon: Sustainable Energy Stocktaking mission

Activity area: Initial stocktaking and policy assessment

Potential in Renewables and Energy savings

Lebanon is endowed with large but significant untapped renewable energy (RE) potential and energy savings potential -including high electricity Transmission and Distribution losses (43%), both to be further tapped by the adopted energy efficiency and renewable energy actions plans (2016-2020).

Reduced renewables vs carbon intensity

Due to the reduction of the hydropower output, the share of renewable energy in the energy and electricity mixes has decreased significantly between 2010 and 2015 -by 55% and 69% respectively (now at 0.5% and 2.6%, respectively). The country's energy and carbon intensities have been rising by 11% and 15%, respectively, since 2010 but have somehow stabilised in the recent years. The ultimate goal is for the share of Renewable Energy to reach 12% in the energy mix by 2020.

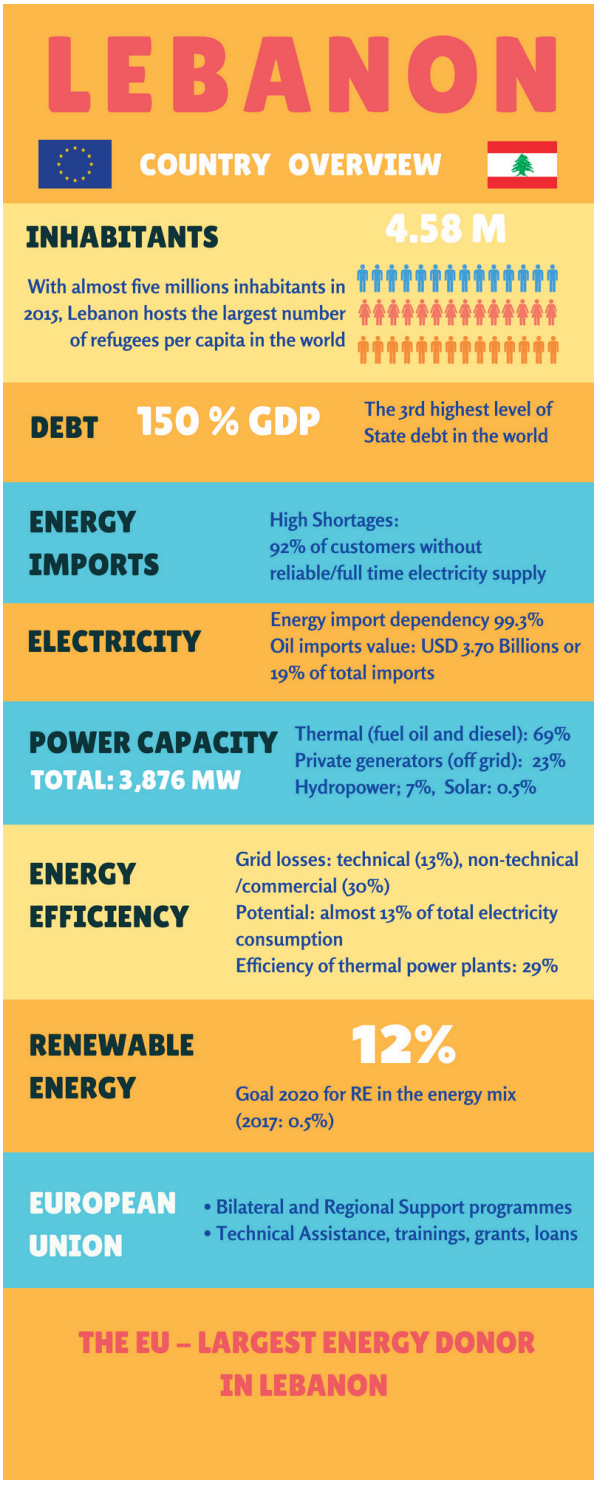
New wind and solar investments

The country's estimated wind potential is about 5,400 MW, and about 1,000 MW for solar photovoltaic (PV). The government has developed a concerted effort to attract investment, with PPAs recently being signed for a total of 200 MW of wind in three farms in northern Lebanon. Already 23 MW of PV have been installed.

EU regional programmes

At the local level, EU regional programmes 'Sustainable Urban Demonstration Projects (SUDEP) South' and 'Cleaner and Energy Saving- Mediterranean Cities' (CES-MED), among others, have supported several municipalities to adopt local energy plans and invest on RE systems to alleviate the power deficit.

New regional programme 'EU4CLIMATE' and the financing facility 'Lebanon Energy Efficiency and Renewable Energy Finance Facility (LEEREF)' are to continue to foster Sustainable Energy deployment.



This project is funded by the European Union

What's new: Field facts and findings

The Gambia: Solar PV battery systems for social infrastructure

Activity Areas: Technical support in programming and preparation of projects, Mobilization of funds and facilitation of partnership, (with particular emphasis on the private sector)

The TAF team is discussing the institutional setting, scenarios, and pre-feasibility work on how to implement an on-grid and off-grid solar photovoltaic-battery system for over 1000 schools and 100 health facilities in The Gambia.

In The Gambia, the lack of reliable electricity services currently impedes economic growth and improvement in the well-being of the population. The country has set a high target of 48% renewable electricity to be achieved by 2030. However, increasing sustainable energy supply and services in public sectors of education and health is a tremendous challenge for the newly-elected Government.

Due to a constrained financial position, The Gambia's National Water and Electricity Company (NAWEC) has been unable to carry out all of its routine maintenance activities, or invest in improving and extending the national grid. As a consequence, 75% of the schools with a convention with Ministry of Basic and Secondary Education (MoBSE) and about 40% of the health facilities do not have any access to electricity. The remaining facilities are supplied with unreliable electricity services, as electric interruptions may occur up to 12 hours per day.

Innovative EU-EIB financed project to provide reliable electricity for over 800 sites.

An innovative project currently under preparation aims to install and provide long-term maintenance (up to 10 to 15 years) of on-grid and off-grid solar photovoltaic-battery systems in some 100 health facilities and 1,029 schools at 828 sites. The direct beneficiaries of the project are the about 792,000 total patients and about 400,000 pupils, as well as hundreds of health facility and school staff working in the buildings that will be provided with PV systems.

The project is innovative in terms of scope, but also due to the long-term financing commitment of the EU and EIB.

In April 2017, during the first joint mission of the EU's Technical Assistance Facility (TAF) for Sustainable Energy and the European Investment Bank, support to install decentralised renewable energy systems in health and school facilities was confirmed as a way to overcome unreliable and expensive electricity services. Since then, the TAF has undertaken various missions in The Gambia to discuss technical options, the institutional setting, and to prepare an advanced technical pre-feasibility study.

The TAF team is currently finalising the technical report, in which a detailed sizing of the PV systems will be presented, as well as the layout of the O&M scheme, and an assessment of possible revenues that could be obtained from selling electricity.

The project is expected to start in 2020.

TAF Field missions and survey work were carried out with the participation of staff from both the Ministry of Basic and Secondary Education (MoBSE) and the Ministry of Health and Social Welfare (MHSW), covering more than 60 schools and health facilities spread throughout the country. Here, Kanifing East Secondary School (left) and Basse Heath Centre (right) are two if the sites visited.

This project is funded by the European Union

What's new: Field facts and findings

Mauritania: Institutional Reforms for the Electricity Sector

Activity area: Capacity building in policy and regulatory framework

Mauritania is becoming a leader in the development of renewable energy. The Mauritanian Government has requested EU support to engage in institutional, legal and regulatory reforms to ensure the best conditions for energy supply, sustainable development, and a potential lead exporter of clean energy in the regional market.

Mauritania's overall generation capacity exceeds its energy needs. The country started to export its excess energy to Senegal and Mali -with which it shares an important hydropower generation plant (Manantali - 200 MW). This trend, along with a pipeline of completed and ongoing energy transport infrastructure projects, confirm the direction: Mauritania is looking to become a lead net exporter of renewable electricity to its neighbours.

Mauritania aims to achieve 50% of renewable energy before the end of the year- increase to 60% by 2020.

Mauritania has increased its energy production capacity by more than 400 megawatts between 2009 and 2017, and thereby, has stamped the deficits and related shortages out. Moreover, Mauritania also achieved a significant progress in the diversification of its production sources by building and exploiting solar, wind and hydro power plants thanks to the dams built by the Organisation for the Development of the Senegal River (OMVS). Before the end of the year, Mauritania aims to achieve 50% of renewable energy and increase this percentage to 60% in 2020 through the completion of a wind farm in Boulenouar in the North West of the country.

In this context, the Mauritanian Government has requested EU support to engage in institutional, legal and regulatory reforms to ensure that the country's frameworks are adapted to these developments and to the preparation of an enabling environment for private investments in the energy sector.

This request by the Government came after many missions and recommendations by the TAF to improve the legal regulatory and institutional frameworks that needed to adapt to the country's new energy dynamics and ambitions. A recent TAF mission led to proposals of reorganisation of the Ministry of Petroleum, Mines and Energy, as well as the utility company SOMELEC to introduce more efficiency. The TAF has adopted a participative approach that led to the adoption of the proposed reforms by all stakeholders.

On June 22, 2018, the TAF team organised a workshop in Nouakchott, Mauritania on behalf of the Ministry of Petroleum, Energy and Mines in partnership with the Delegation of the European Union in Mauritania. The purpose was for the 50 participating stakeholders to 'Review the proposed Institutional Reforms for the Electricity Sector'.

More than 50 participants attended the Workshop in Nouakchott this June, where the main topic of discussion was the institutional reform of the electricity sector.

The Secretary General of the Ministry of Oil of Mauritania and the Head of Cooperation of the European Union Delegation addressed the attending stakeholders.

The Head of Cooperation of the European Union, M. Hans-Christian Beaumond, emphasised the importance of the electricity sector for the sustainable development of the country: "The European Union is renewing its commitment to the Mauritanian Government in energy investment."

This project is funded by the European Union

What's next: Upcoming missions

Bangladesh: Market Potential and Funding Opportunities for Renewable Energy projects

In Bangladesh, a stocktaking mission to Assess Market Potential for Renewable Energy projects and Funding Opportunities for private sector investments will be organised. The main objective of EU development cooperation with Bangladesh is to promote more equitable and inclusive growth and improved democratic governance, with the aim of eradicating extreme poverty and increasing resilience.

Papua New Guinea: Sustainable Energy Needs - Opportunities for Productive Uses

In Papua New Guinea, an identification mission will be organised, aiming to identify the sustainable energy needs and opportunities for productive uses. This will contribute to the formulation of the sustainable energy component in the Rural entrepreneurship, investment and trade sector.

Two main specific objectives are defined for this mission: to develop three specific sustainable, market-oriented, competitive and prosperous rural activities in selected areas of the Sepik region (East Sepik and Sandaun Province); and to establish strong and efficient value chain enablers, focusing on support services, infrastructure, policy and regulatory environment, especially in the Sepik region.

Throughout the Action, special attention will be paid to community engagement, in particular of women and youth, being the most vulnerable segments of the population.

Nigeria: 'Jigawa Energy City' to diversify the energy mix of the country

In Nigeria, more than 100 million people live without electricity and most of the energy generated in the country comes from private diesel generation. To stimulate economic development and ensure energy security in the country, the 'Jigawa Energy City' aims to reduce the country's energy dependency on gas-fired power plants by discussing with the main stakeholders to implement a strategy to diversify the energy mix of the country.

The TAF will study the Jigawa Energy City objectives to determine the perimeter of TAF intervention (in the energy sector) among other stakeholders and partners' activities.

Ghana: 10 MWp solar power plant to support sustainable agriculture

The high price of electricity in Ghana impacts directly on agro-industry activities. The European Union is promoting the development of sustainable agriculture, and is providing assistance to implement a power plant in Ghana. The development of a 10 MWp solar photovoltaic (PV) project near the City of Wa, will contribute to improving the livelihood of the local population, generate economic growth in the region as well as create stable employment, protect resources from climate change and improve food security.

The TAF team has evaluated the technical, legal and economic-financial framework conditions have been evaluated and the reference scenario was chosen under a previous assignment. This 'phase 2' will work on the pre-feasibility study - the technical outlay of the PV power plant and preliminary project agreements.

What we do: The EU's Technical Assistance Facility for Sustainable Energy

Supporting the **#EU's vision** and strategies at national and regional level

Provision of **#high quality** technical assistance at Partner Country and Region

#Low lead times from ToR preparation to assignment launch

Efficient and **#effective management** of each mission

#Control mechanism and QA for coherent deliverables

This project is funded by the European Union

What we do: The EU's Technical Assistance Facility for Sustainable Energy

The 'EU's Technical Assistance Facility (TAF) for Sustainable Energy' assists partner countries in fine-tuning their energy policies and regulatory framework that allow for increased investments in the energy sector. The TAF supports countries which are committed to reaching Sustainable Energy objectives, and in particular those who selected energy not only as one of the priority areas of their national policy agenda but also as focal sector in their bilateral cooperation with the EU for the period of 2014-2020.

Through targeted expert missions to the partner countries, five types of technical assistance packages ('Activity Areas') are delivered:

Policy and reforms; Capacity building; Investment projects planning; Mobilising funds and partnerships; Industrial and technology cooperation.

Overview of TAF support:

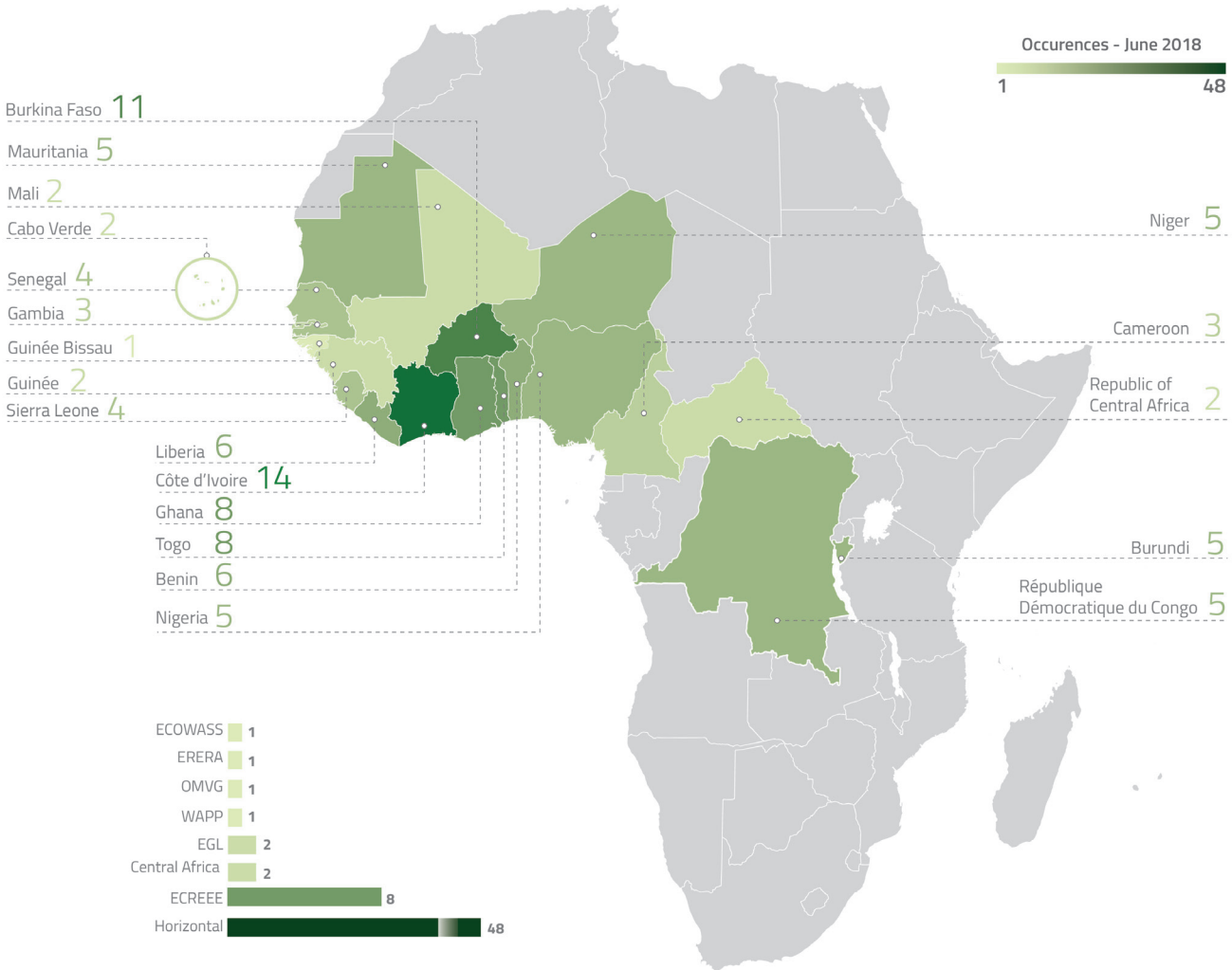
Since its launch in 2013, the TAF has provided technical assistance for some 240 missions in Sub-Saharan Africa.

A year after the Sub-Saharan Africa TAF launch, TAF operations were extended to also accommodate regions beyond Sub-Saharan Africa, and to date over 30 technical teams have been deployed by the TAF 'Rest of the World' Facility – ranging from the East and South Neighbourhood and Asia to Latin America, the Caribbean, and the Pacific.

Focus on:

Central and West Africa

TAF CW assignments by countries



This project is funded by the European Union

Who's who: Meet the team

CONTACTS

Newsletter Contact

Eleni Karfaki | eleni.karfaki@hcl-consultants.com

TAF for East and Southern Africa

European Commission Contact

Miguel Angel Varela Sanchez
Miguel-Angel.VARELA-SANCHEZ@ec.europa.eu

Team Leader, Key Expert

Rachid Bendaly
rachid.bendaly@atkins-se4all.com

Key Expert for Rural Electrification

Balthasar Klimbie
balthasar.klimbie@atkins-se4all.com

Key Expert for Energy Efficiency

Dimitris Papastefanakis
dimitris.papastefanakis@atkins-se4all.com

Consortium Contact

Dominic Bacon
dominic.bacon@atkinsglobal.com

TAF for West and Central Africa

European Commission Contact

Georgios Grapsas
Georgios.GRAPSAS@ec.europa.eu

Project Manager, Team Leader

Joséphine Arpaillange
taf.j.arpaillange@gmail.com

Key Expert for Rural Electrification

Martin Ehrlich
mpgehrlich@aol.com

Key Expert for Renewable energy

Luc Chancelier
chancelierluc@gmail.com

Consortium Contact

Magda Popescu
magda.popescu@stantec.com

Anca Andreescu
anca.andreescu@stantec.com

TAF for Neighbourhood (East and South), Asia (including Central Asia), Latin America, Caribbean and Pacific

European Commission Contact

Anca-Maria Simion
Anca-Maria.SIMION@ec.europa.eu

Team Leader, Project Manager, Coordinator and Key Expert for Asia

Thierry Lefevre
T.LEFEVRE@ceerd.net

Key Expert for EU Neighbourhood (East and South) and Central Asia

Emmanuel Bergasse
Emmanuel.BERGASSE@sofreco.biz

Key Expert for Latin America, Caribbean and Pacific

Federico S. Fische
Federico.FISCHE@sofreco.biz

Consortium Contact

Majda Bunjevcevic
Majda.BUNJEVCEVIC@sofreco.com

This project is funded by the European Union