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TAF Newsletter #20 | April 2019

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

What's new: Field Facts and Findings

TAF Exploring Innovative Digital Energy Solutions

From Crowdfunding to Big Data, the energy sector is undergoing a dramatic transition based on decentralised, clean and digital energy solutions. The EU aims to be part of the supportive ecosystem that will accompany energy access entrepreneurs on their innovation journey –and the TAF is tracking these solutions.

New Action Document on Energy-Digital Nexus

Identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and growth.

Central Asia: Regional Sustainable Energy Cooperation

With a new EU-Central Asia Strategy to be unveiled in 2019, TAF is supporting DG DEVCO, the European Commission's Directorate-General for International Cooperation and Development, in the assessment of Sustainable Energy and Regional Cooperation in Central Asia, and in identifying possible areas for support.

What's next: Upcoming Missions

- Nationwide Emergency Dams Safety Inspection in Laos
- Promoting Sustainable Energy in Palestinian Industries and Services
- Support to the expansion of the Solar Water Heating market in Panama

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

- Focus on: Central Asia

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

TAF Exploring Innovative Digital Energy Solutions

Activity Areas: Industrial and technical cooperation; Project development; Capacity building

From Crowdfunding to Big Data, the energy sector is undergoing a dramatic transition based on decentralised, clean and digital energy solutions. The EU aims to be part of the supportive ecosystem that will accompany energy access entrepreneurs on their innovation journey –and the TAF is tracking these solutions.

Transformative forces are offering new opportunities to achieve the Sustainable Development Goal for Energy (SDG 7). Innovative digital technologies offer new ways to reduce costs in all stages of project development, design and operation of mini-grids and autonomous systems.

The range of solutions today, besides the conventional rural electrification by extending the national electricity networks, spans from stand-alone PV systems to mini-grids utilising a variety of renewable energy sources with different levels of availability and storage technologies, which, in combination with efficient use of energy, can meet energy needs of remote communities and businesses. Mini-grids and autonomous power systems can scale up and respond to growing electricity demand as the purchasing power of local population grows.

Africa is the new 'playground', showing how to innovate for 603 Million people without energy access on the continent.

Digital solutions have already enabled the Pay-As-You-Go (PAYG) model, for example, which has already revolutionised delivery of both on-grid and off-grid systems in Sub-Saharan Africa and is entering South and South-East Asia. As an entry point to the bottom of the pyramid customer group, the PAYG models have attracted interest from financiers, thus illustrating the boost to mini-grid deployment that new, digital technologies can offer.

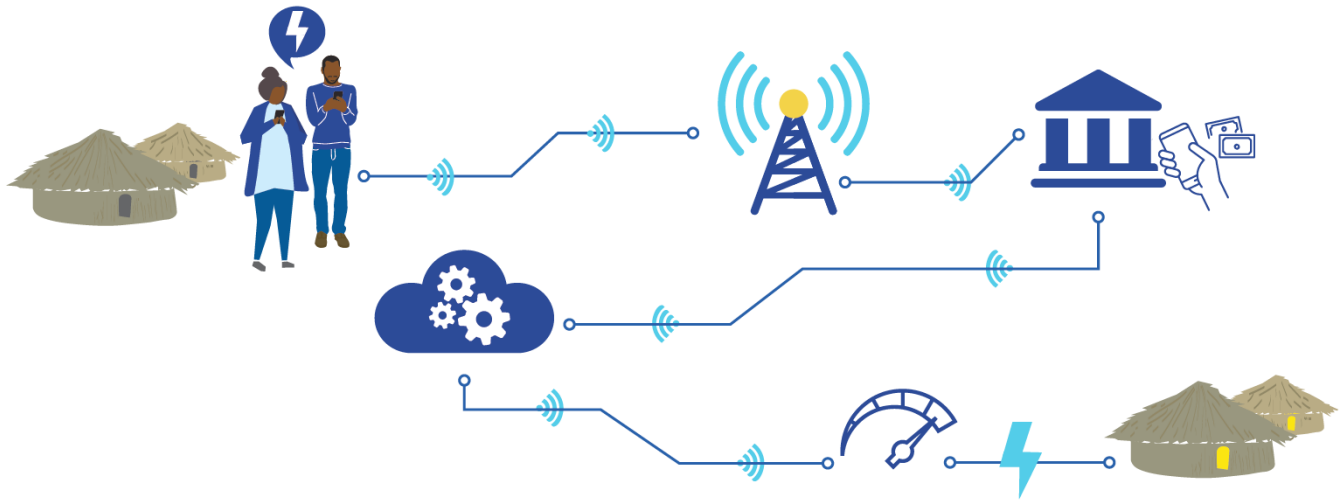

Figure: PAYG with mobile money

In the framework of a dedicated assignment, assistance was provided to DG DEVCO in preparing an Action Document on Identification and support of financially sustainable business models within the energy-digital nexus.

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Crowdfunding, Blockchain, Peer-To-Peer (P2P) Trading, ICT for Remote O&M monitoring, Digital payments, Internet of Things, Printed Electronics, Cloud Computing, Artificial Intelligence (AI), Big Data.... Numerous innovative solutions with application to mini-grids and autonomous systems have been brought to the market with start-up innovation. Each technology has a potential to accelerate deployment of decentralised energy solution in the energy access space.

A Brochure is being developed that features start-ups that are already using digital-energy nexus to accelerate energy access. They have been selected to showcase different uses of hardware, digital and business model innovation. The list serves for illustrative purposes and does not cover all the startups that are out in the market. Every day a new entrepreneur is testing a new solution that might revolutionise the way we deliver energy access. The Brochure will also present a number of technology developments which received support from EU's research and technology support programmes.

Action Document on Identification and support of financially sustainable business models in the energy-digital nexus for financial inclusion, job creation and growth

Total support volume: The EUR 26.5 million

The EU contribution is expected to leverage additional contributions.

The Action aims at identifying and stimulating financially sustainable business models of energy micro- and mini-grid investments that focus on productive uses of renewable energy, on delivering electricity, digital and other services contributing to financial inclusion, job creation, sustainable economic growth and mitigation of root factors of irregular migration. The types of operation to be funded include:

Building/improving energy access, including by installing micro- and mini-grids with a focus on off-grid solutions employing digital technologies, but exceptionally also connections to the existing grid and reinforcing and/or expanding the existing grid/distribution network;

Energy generation from Renewable Energy Sources to ensure the provision of modern energy services along with digital services and energy efficiency measures to households, businesses and/or essential public services – schools, hospitals – operated by public or private organisations and energy storage;

Hybridisation of existing fossil fuel-based generation systems with Renewable Energy Systems ("greening") and integration of digital solutions;

Incorporating Renewable Energy Systems and digital solutions into production methods to promote productive uses of energy with a view to boosting economic development and job creation;

Introduction of digital and innovative technologies to improve the performance of public or private utilities through the creation of sustainable partnerships between local utilities and start-ups active in the energy-digital nexus;

Providing support to access financial services thanks to digital solutions on one side, and to affordable finance thanks to the financial mechanism established and the accompanying capacity building / training activities.

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What's new: Field Facts and Findings

Central Asia: Regional Sustainable Energy Cooperation

Activity Areas: Technical support in programming and preparation of projects, Mobilisation of funds and facilitation of partnership

With a new EU-Central Asia Strategy to be unveiled in 2019, TAF is supporting DG DEVCO, the European Commission's Directorate-General for International Cooperation and Development, in the assessment of Sustainable Energy and Regional Cooperation in Central Asia, and in identifying possible areas for support.

Central Asia is an important bridge between Europe and Asia due to its geographic location and abundant natural resources, and both have consistently confirmed joint commitments to Sustainable Development Goals, aimed at meeting the increasing needs from growing and young populations and at diversifying economic opportunities.

Since their independence, Central Asian countries have endured tumultuous and stressful political, economic, social and environmental challenges towards more open and market-oriented economies.

The energy sector has had to deal with the effects of aging, poorly performing and inadequately maintained infrastructure – in particular electricity generation, transmission and distribution assets, high technical and commercial grid losses, tariffs below the costs of production, high universal subsidies and a lack of timely commitments for independent and effective regulation of the sector.

As a result, most of the countries have also not yet capitalised on the tremendous opportunities to deploy Renewable Energy technologies both at utility scale and decentralised as well as to introduce cost-effective energy demand management and energy efficiency to reduce high energy intensities.

EU regional programming for the period 2014-2020 foresees to further support sustainable energy in Central Asian Countries through regional cooperation and development.

Within a dedicated TAF assignment, a TAF team held discussions with the Ministries of Energy, Economic Development, Energy Utilities, international financing institutions, donors, professional associations and national experts to discuss re-engaged EU cooperation in each of the 5 countries of Central Asia -Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

Key recommendations of the TAF Technical Report compiles regional cooperation needs and priorities for EU Support, while the Action Document frames a regional Technical Assistance project for the period 2020-2023: 'Capacity Building and Technical Assistance to Central Asian Countries - Renewable Energy and Energy Efficiency Support (CAREEE)'.

CAREEE's scope and focus include strategies, action planning, legislation and regulations on renewable energy and energy efficiency as well as the establishment of a Central Asian – EU Sustainable Energy Centre that would act as a lodestar for EU best practices on sustainable energy policies, legislation, regulation, system planning and modelling, standards, digitalisation and capacity building. This 4-year regional project would also promote 'soft harmonisation' and act as a bundler of RE and EE investment projects to enhance their financing eligibility.

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What's next: Upcoming missions

Nationwide Emergency Dams Safety Inspection in Laos

The mobilisation of the EU Technical Assistance Facility (TAF) for Sustainable Energy has been requested, for the provision of International Advisors to Review the Nationwide Emergency Dams Safety Inspection in Laos.

The main objective of this assignment is to assist the Ministry of Energy and Mines (MEM) in reviewing the Emergency Dam Safety Inspection Reports and for some cases, the Detailed Dam Safety Evaluation Reports and conducting site visits with MEM, as required, to confirm the safety conditions stated in the Emergency Inspection Reports and Detailed Dam Safety Evaluation Reports.

Deploying Sustainable Energy in Palestinian Industries and Services

The energy sector is important for Palestinian socioeconomic development and growth. Today, electricity demand is growing faster than existing supply that is mostly imported, causing power interruptions especially in the Gaza Strip. Several donors continue to support the Palestinian energy sector, to secure its stability, in the West Bank and Gaza Strip. The EU and its Member States within the Joint Programming 2017-2020 (to which the TAF also contributed in 2017) and its Pillar 4: Access to self-sufficient water and energy services have funded TA and investment projects both in the electricity sector and in the energy efficiency and renewable energy (RE) sector.

The EU TAF mission aims to identify how to overcome barriers preventing the uptake of sustainable and decentralised energy in the Palestinian industrial and service small and medium enterprises – SMEs, in preparation for a large EU-UNIDO programme.

Specifically, the project targets to develop a roadmap for the effective enforcement of net-metering, identify and propose viable business models for decentralised RE solutions, and develop an action plan to support Cleantech energy start-ups.

Support to the expansion of the Solar Water Heating market in Panama

The Technical Assistance Facility will support the Government of Panama to provide technical assistance to the Secretary for National Energy, to increase its institutional capacity and of other institutions in support of the expansion of the Solar Water Heating market in this country.

Following very detailed request from the Government of Panama's, a team of TAF experts has been mobilised for an ambitious mission. The general objective of this assignment is to provide assistance in reducing CO2 emissions on a cost-efficient manner through the support of the development of SWH market in Panama.

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

The 'EU's Technical Assistance Facility (TAF) 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.

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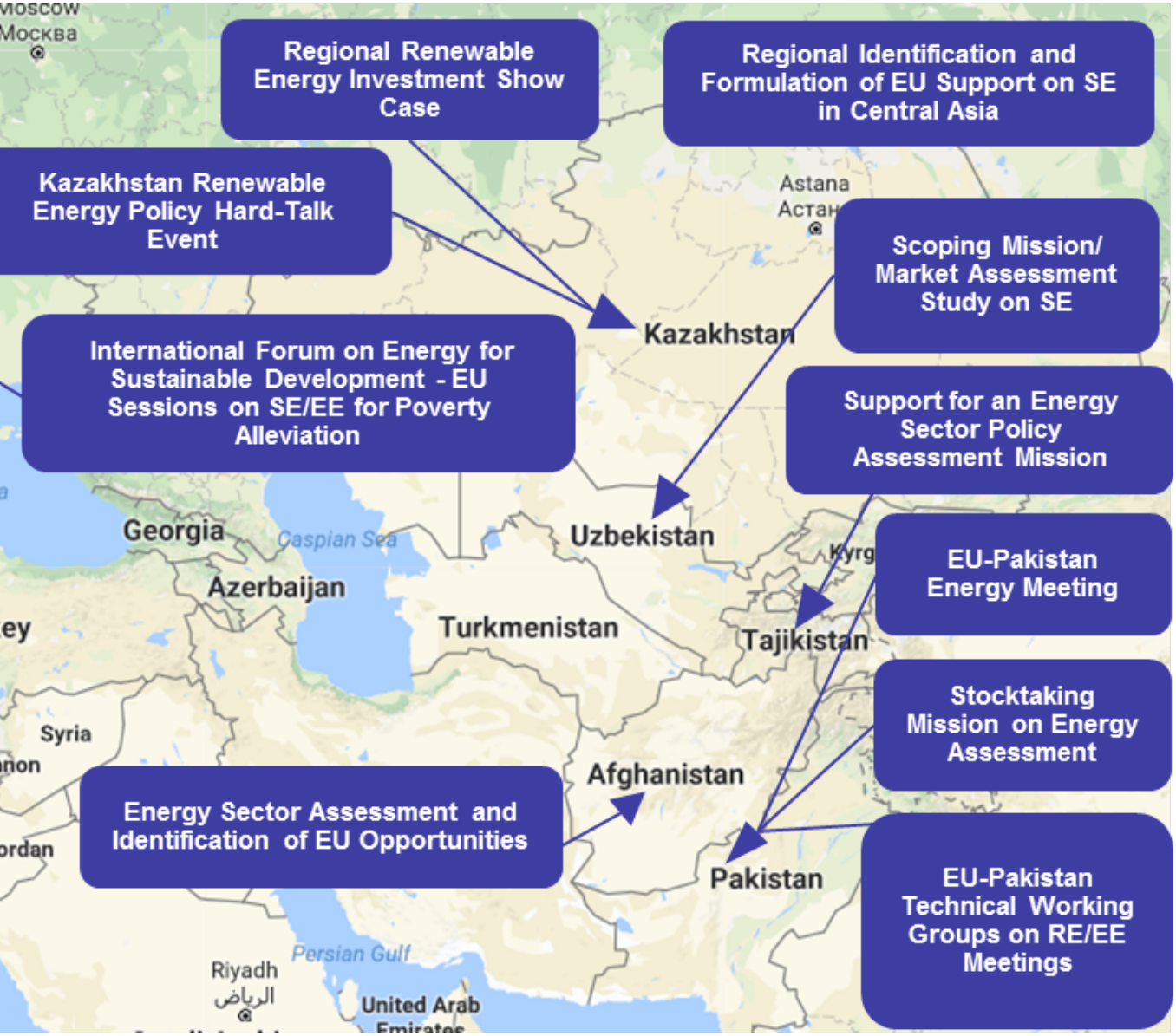
What we do: The EU's Technical Assistance Facility for Sustainable Energy

Overview of TAF support:

Since its launch in 2013, the TAF has provided technical assistance for some 270 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 60 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 Asia



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Who's who: Meet the team

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