



ON A CLIMATE NEUTRAL AND SUSTAINABLE PATH

GFA'S SUSTAINABLE **ENERGY** SOLUTIONS WORLDWIDE

DYNAMIC IN A WORLD OF CHANGE

GFA Consulting Group is a leading European consulting firm in the international development cooperation sector. Based in Hamburg, Germany, the company has a solid track record of providing effective solutions to the challenges in the global consulting market. GFA has implemented complex studies and projects worldwide since 1982. Leading development agencies, ministries, and public clients have entrusted GFA with helping them manage projects financed through bilateral and multilateral funds. Working in cooperation with stakeholders in government, the private sector, NGOs, and citizens' groups, GFA balances innovation and reliability to meet local needs.

Combining high-quality, high-tech services with innovative approaches, delivered by GFA staff onsite, to earn the trust of clients worldwide.



GFA VISION

WE IMPROVE THE LIVING CONDITIONS OF HUMANS WORLDWIDE BY PROMOTING SUSTAINABLE DEVELOPMENT



GFA MISSION

AS A PARTNER OF CHOICE, WE SUPPORT OUR CLIENTS WITH SERVICES AND SOLUTIONS FOR ALL CHALLENGES IN INTERNATIONAL COOPERATION



GFA CORE VALUES

PROVIDING SERVICES OF HIGHEST QUALITY AND TECHNICAL EXCELLENCE, WHICH THE GFA STAFF COMBINE WITH INNOVATIVE APPROACHES AND PRODUCTS THAT INSPIRE CLIENTS' CONFIDENCE AND TRUST THROUGHOUT THE WORLD



CORPORATE SUCCESS – CRUCIAL FACTORS

Based on a decentralized organizational structure across all disciplines and regions, GFA's corporate success is deeply rooted in the following:

- Effective strategy process and knowledge management, that translates the latest market developments into action plans for all operational units.
- Flexible staff recruitment and human resource development for rapid response to market demands.
- A supportive working environment and social commitment, which is validated by regular staff surveys.
- Rigorous quality management for core operational processes to enhance project performance and customer satisfaction
- The high equity ratio that provides job security and protects corporate memory, while creating opportunities for further growth.
- The awareness of all staff members that they benefit from the company's success, not only as employees, but also as shareholders.

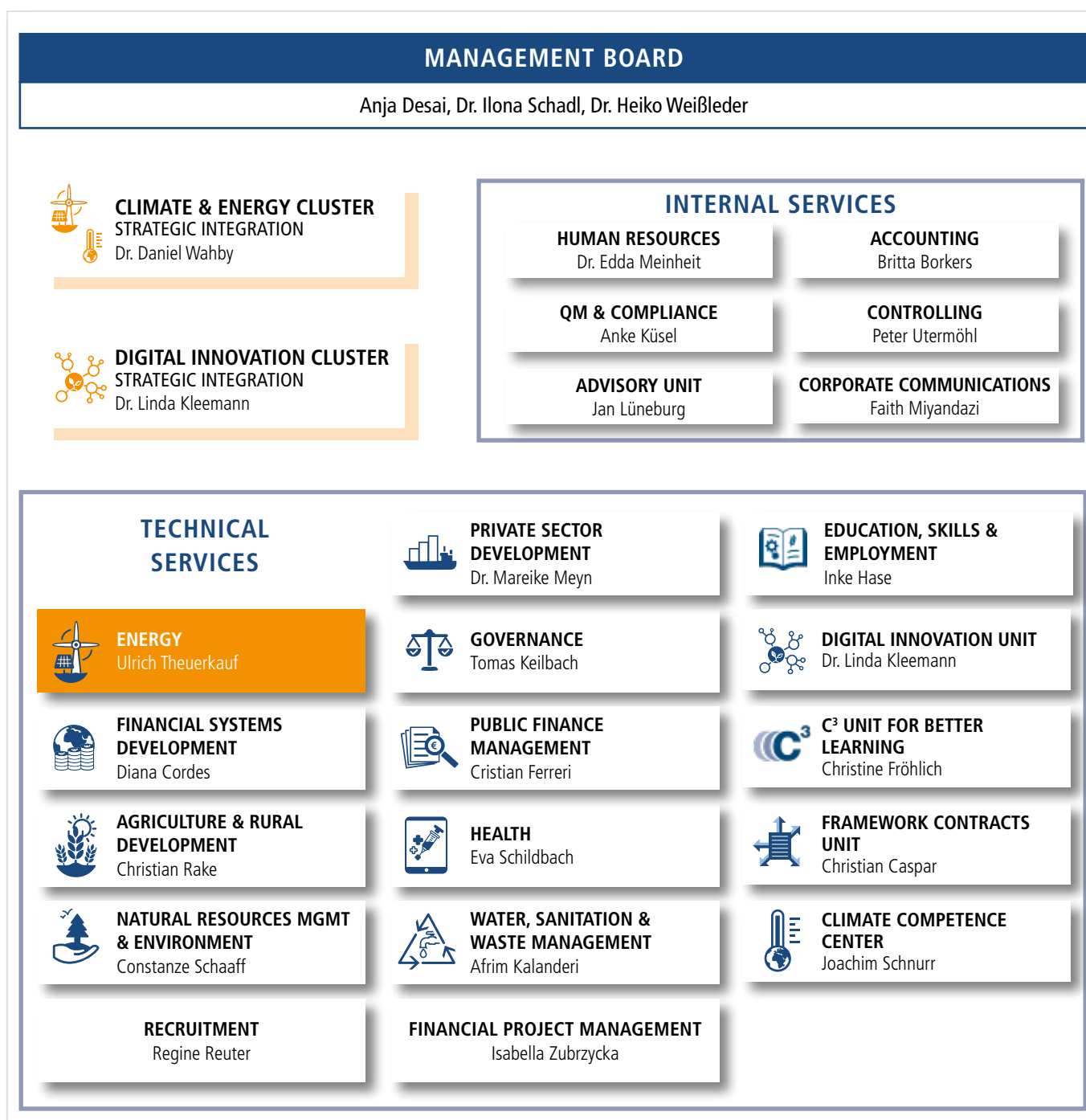


ENERGY DEPARTMENT WITHIN GFA CONSULTING GROUP

GFA Consulting Group provides outstanding services in strategic business areas that are reflected in a decentralized structure of global technical departments and units (see chart).

The Energy Department is the core Business Unit in GFA Consulting Group for developing and implementing sustainable energy projects along the energy value chain – from production to consumption.

However, many projects follow a multidisciplinary approach, where diverse development challenges are addressed from the perspective of sustainable energy as well as climate policy, urban governance and planning, vocational training and higher education, circular economy, climate adaptation, biodiversity, and others. Additionally, projects implemented by other departments may address energy-related topics, too.



ENERGY DEPARTMENT AS PART OF GFA CLIMATE & ENERGY CLUSTER

The Energy Department is an integrated and active part of the GFA Climate and Energy Cluster – a cooperation platform for all departments of GFA to jointly develop products, and tender and implement projects. For this purpose, the department participates in several technical working groups on topics such as climate-resilient cities, circular economy, and Just Energy Transition.

The graphic on this page shows the main topics of collaboration within the Cluster. The Energy Department is involved in all mitigation topics, providing energy supply and energy efficiency expertise.

Further, we contribute to climate policies, climate finance, and adaptation topics such as climate-resilient cities. We also collaborate regularly with other GFA Group companies in our projects: HEAT International, GFA South East Europe, and Projekt-Consult.

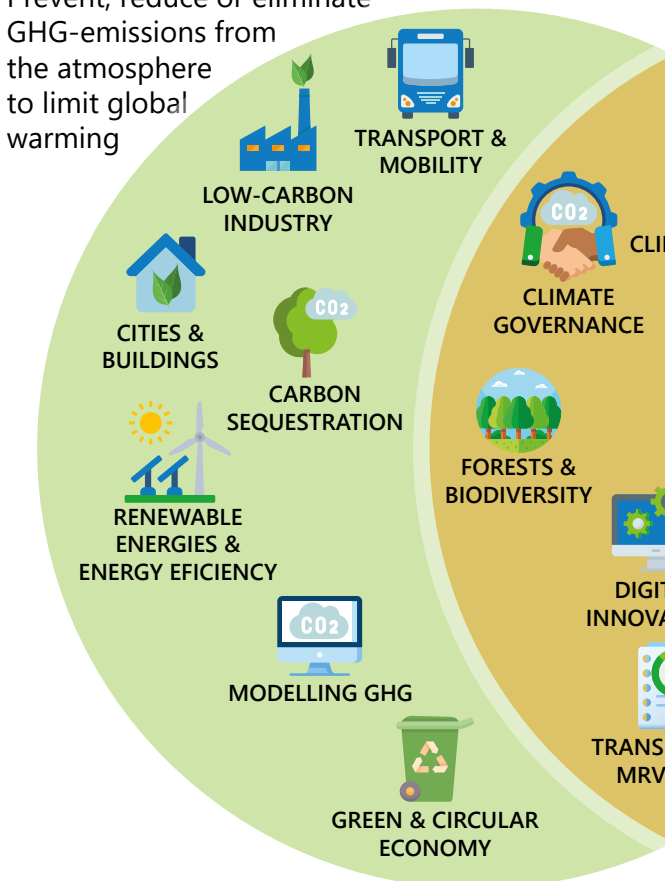
In addition to our active engagement in climate change mitigation, the department aligns its activities with two more interdisciplinary issues in development policy and energy transition: The achievement of Sustainable Development Goals and digital solutions for energy transition.



GFA CLIMATE CHANGE SERVICES TOWARDS A LOW-CARBON FUTURE AND CLIMATE RESILIENCE

MITIGATION

Prevent, reduce or eliminate GHG-emissions from the atmosphere to limit global warming



ADAPTATION

Reduce, compensate for, or adapt to the impacts of climate change



SUSTAINABLE DEVELOPMENT GOALS

GFA is a purpose-driven company. Our vision includes targeted work towards the achievement of the Sustainable Development Goals (SDGs). In the energy sector, among other Goals, we contribute to **SDG 7: "Ensure access to affordable, reliable, sustainable and modern energy for all"**. The specific targets of SGD 7 are reflected in our business activities:



- Ensure universal access to affordable, reliable, and modern energy services.
- Substantially increase the share of renewable energy in the global energy mix.
- Substantially improve energy efficiency.
- Enhance international cooperation to facilitate access to clean energy research and technology, and promote investment in energy infrastructure and clean energy technology.

Our energy sector activities contribute to the achievement of additional SDGs, including:



End poverty in all its forms everywhere



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



Achieve gender equality and empower all women and girls



Ensure availability and sustainable management of water and sanitation for all



Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation



Make cities and human settlements inclusive, safe, resilient, and sustainable



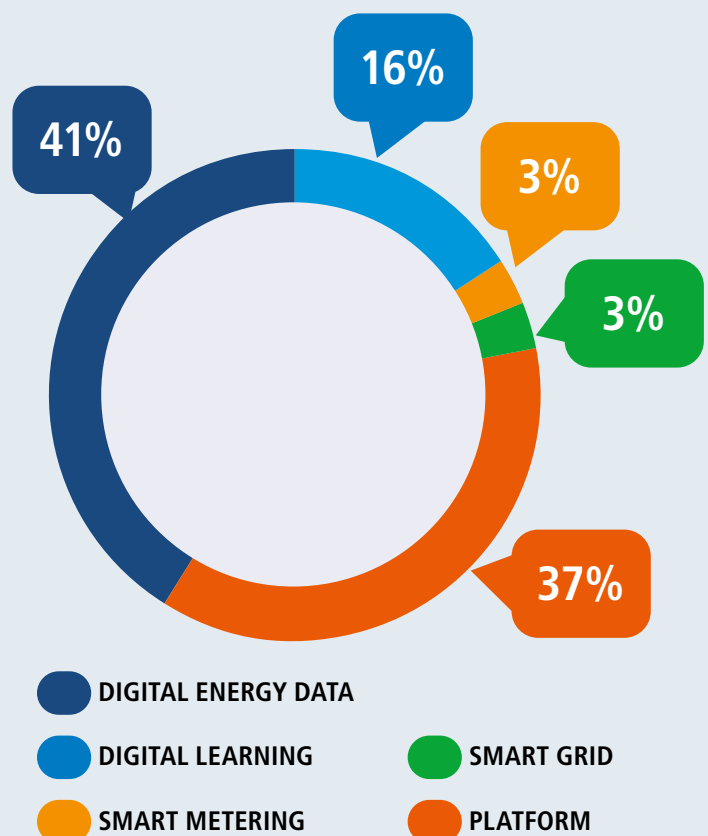
Take urgent action to combat climate change and its impacts

DIGITALIZATION

Fully endorsing Digital Principles, we believe that digital technologies are a key platform and medium for advancing international development. We are convinced that the digital-human interface can solve various sustainable development challenges. Our vision is to empower people through technology. This is why GFA has a Digital Innovation Cluster whose expertise can be drawn on by all departments.

Digital technologies are a central pillar of GFA's services and our ambition to deliver excellence for our clients. We strive to apply state-of-the-art digital solutions to various sustainable energy challenges, particularly in the energy sector. This ranges from open data tools, and GIS applications to energy monitoring and management systems for buildings, enterprises, and whole municipalities.

Out of 35 currently implemented projects, over 70% have digital activities in line with the presented donor strategies. These projects span the entire energy value chain, which is reflected in our business units.



THE ENERGY DEPARTMENT – WHAT DO WE OFFER

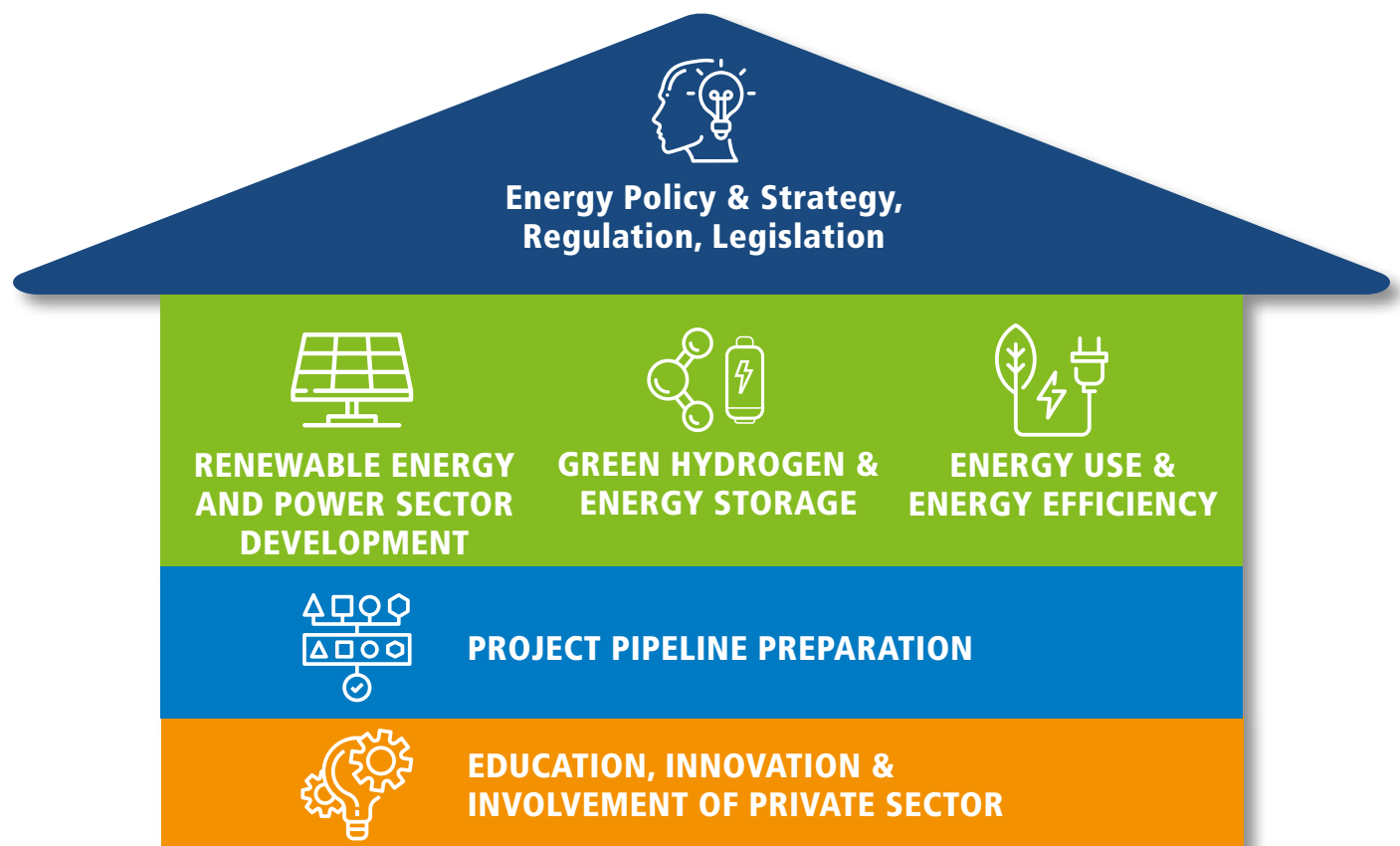
Worldwide, the production and use of energy across economic sectors account for more than 75% of total greenhouse gas emissions. Due to the evolving climate crisis, and driven by the commitments of the Paris Agreement, a deep and comprehensive global energy transition is underway to supply clean, affordable, and secure energy. This is in addition to a substantial increase in energy efficiency in all sectors.

Full decarbonizing of the energy system is critical to reaching climate objectives in 2030 and 2050. We need a power sector based largely on renewable sources, alongside the rapid phasing out of coal and decarbonizing gas. The production and use of Green Hydrogen and its derivatives are

a game-changer that will allow decarbonization of all sectors where electrification is not economically possible.

In our projects, we follow the principles of the European Green Deal and its international perspective. In this regard, the Just Energy Transition approach is a dedicated field for multidisciplinary collaboration with employment, education, private sector development, and other technical teams.

In the face of these urgent challenges, GFA Consulting Group has gathered its expertise, knowledge, and skills within the specialized Energy Department, to deal with challenges in the energy sector.





ENERGY POLICY & STRATEGY, REGULATION, LEGISLATION

GFA's experts have extensive international experience in energy planning and policy, as well as in-depth knowledge of regulatory frameworks needed for sustainable energy development. We share this expertise with local decision-makers to support long-term development and the implementation of specific actions with our partner institutions. We provide the following services:



- Development of energy-related policies, legislation, and regulations supporting a Just Energy Transition.
- Development of national energy forecasts and strategies together with national and local action plans for energy efficiency, renewable energy, sustainable energy, and climate action (MEEAPs, NEEAPs, NREAPs, SECAPs, GCAPs).
- Support in the development of on-grid and off-grid regulations and for the development of electrification concessions for universal energy access.
- Planning and modeling of the energy mix and energy demand/supply.
- Establishment of policy dialogues and energy partnerships, provision of institutional and organizational capacity building.
- Implementation of communication and awareness-raising activities relevant to energy policy promotion.



RENEWABLE ENERGY AND POWER SECTOR DEVELOPMENT

Modern energy services are crucial to human well-being and a country's economic development. Access to modern energy is essential for the provision of clean water, sanitation, and healthcare, as well as reliable and efficient lighting, heating, and cooking. Ensuring affordable, reliable, sustainable, and modern energy for all by 2030 remains possible, but will require more sustained efforts, particularly to reach some of the world's poorest populations and to improve energy sustainability.

Renewable Energy Sources (RES) are increasingly taking over new generation capacities worldwide – and being supported by GFA project activities. RES enable a green energy system independent of fossil fuels. Challenges lie in connecting to the public grid, integrating fluctuating sources such as solar or wind power, robust funding models, and setting up support schemes and procurement processes for market integration. To support these efforts, GFA provides the following services:

General Renewable Energy Services

- Consultation on grid integration.
- Consultation on the productive use of energy.
- Develop. of new financing models for RE investments.

- Execution of technical and financial feasibility studies, including environmental and social impact assessment (ESHS).
- RE project pipeline development and conduct due diligence.
- Training and capacity development.
- Development of digital innovation tools.

Power Sector Development

- Power market reforms, including regulatory framework, governance, and economics.
- Advice for utilities on the path toward Power Sector Transformation.
- Smart grid development.
- Consultation on Independent Power Producer (IPP) projects and Public-Private Partnership (PPP) projects.
- Consultation on Power Purchase Agreements (PPAs).

Rural and Off-grid Electrification

- Support of Mini-grid development.
- Development of rural electrification schemes.
- Support of Productive Use of Energy (PUE) and business case development.



GREEN HYDROGEN & ENERGY STORAGE

Green Hydrogen (GH²) and its derivatives, Power-to-X (PtX), have emerged as a key element in the global energy transition. It offers a promising pathway to decarbonize hard-to-abate industries such as steel, cement, aviation, shipping, and transportation while addressing the intermittency and storage challenges of renewable energy sources.

Many developing countries, in particular, stand to benefit from their favorable geographic profiles for GH² production due to often optimal renewable energy resources, and advantageous production costs. By capitalizing on this advantage, they can not only meet their own national climate targets but also generate an export market that can contribute to their economic and social development. This presents an exciting opportunity for sustainable growth and cooperation across borders, even though sales markets for GH² products may not be created only locally in the medium term to ensure the financial viability of these complex projects.

GFA has been at the forefront of GH² development, with a track record of implementing studies and international cooperation projects for donors such as the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Through our extensive and in-depth sector expertise, we have laid the foundation for favorable conditions for a GH²/PtX market (ramp-up) in countries such as Algeria, The Hashemite Kingdom of Jordan, the Republic of Tunisia, the Kingdom of Morocco, the Socialist Republic of Vietnam, The Republic of Nigeria, Senegal, and South Africa.

Amongst others, the Energy Department provides the following services:

- Adjustment of relevant policy and regulations on Green Hydrogen/Power-to-X, and the development of Green Hydrogen strategies and roadmaps.
- Execution of Green Hydrogen market assessments and creation of an enabling framework for GH² market development.
- Provision of technical and economic advice on the scalability of PtX applications, including value chain analyses.
- Environmental and social impact assessments for GH²/PtX projects.
- Development of financing solutions for GH²/PtX projects.
- Leading a relevant H₂/PtX management and procurement process.
- Provision of technical assistance for H₂/PtX infrastructure development.

In addition, GFA is an active member of the Hamburg Renewable Energy Cluster (EEHH), a network of over 200 private companies, universities, and public authorities. This provides valuable access to technological, economic, and legal expertise in GH² and other energy transition fields, which we leverage in our global projects. We are well positioned for future opportunities thanks to our network of highly competent experts, in-house technical expertise, and access to innovative GH² knowledge and applications.



ENERGY USE & ENERGY EFFICIENCY

Energy Efficiency (EE) plays a major role in decreasing non-productive energy consumption. In developing and transitioning countries with dated industrial technologies and buildings that need to be adapted to the regional climate, particular challenges lie in upgrading technology and processes, refurbishing, and introducing EE standards. The demand for EE consultants is growing, due to benefits such as reduced energy costs, increased competitiveness, and a positive environmental impact.

With longstanding experience implementing EE measures in the building, industry, and transport sectors, GFA ex-

perts are well-positioned to advise on the best strategies to improve energy performance. We consult our partners on improving energy conservation, and provide the following services:

- Development of Building Codes, and EE building regulation, including the development of building typologies.
- Implementation of various EE measures in building and industry sectors, including but not limited to improving the energy performance of existing building stock and energy-efficient retrofitting of buildings using rooftop PV.
- Improving the energy performance of district heating/



- cooling and decarbonized heating systems.
- Execution of energy audits and management in industry and public infrastructure.
- Development and implementation of municipal energy management systems.
- Project pipeline development (street lighting, district heating, and buildings).
- Development of funding models and innovative

- financing options for investments in EE.
- Support for the reform and restructuring of EE funds.
- Consultation on Energy Service Companies (ESCOs), Super-ESCOs, and energy performance contracting.
- Development and scaling up business models for more extensive EE measures deployment.
- Capacity building in EE for suppliers/enablers.



PROJECT PIPELINE PREPARATION

Project pipelines have become a key focal point of countries' efforts to implement climate and development commitments, including the Nationally Determined Contributions (NDC). Meeting climate mitigation objectives requires the delivery of many new low-carbon projects in a range of technologies. GFA supports countries' efforts to develop robust project pipelines, which encourage and expand investment in appropriate projects across the energy sector. This meets investors' requirements, and provides advance support to certain projects. In this respect, GFA provides:

- Management of institutional set-ups for project development in industry, cities/municipalities, and households.
- Strengthening of the investment-enabling environment

and provision of institutional support.

- Project pipeline identification and pre-selection of bankable energy projects.
- Execution of due diligence: technical/financial/economic feasibility, environmental/social impact assessment.
- Management of tenders and contracts for subcontractors.
- Process definition, tender dossiers, including bill of quantities (BoQ), contract documents, support of evaluation and contract negotiation, and auctioning.
- Provision of transaction advisory services.
- Monitoring, evaluation, and performance review.
- Awareness raising and dissemination of information and lessons learned.



EDUCATION, INNOVATION & INVOLVEMENT OF PRIVATE SECTOR

Our experts support public and private sector professionals to develop innovative energy solutions needed to address the challenges of energy security in their countries. Our assistance ranges from technical seminars to institutional support and procurement training:

- Help in strengthening institutions and organizational development.
- Provision of capacity building and training.
- Provision of (higher) education - beyond Technical Vocational Education and Training (TVET) - and applied research.
- Enabling knowledge transfer.
- Management of technical secretariats and Project Management Units (PMUs).
- Building private sector EE/RE networks.
- Establishment of digital infrastructure in energy monitoring.

- Scaling of business models, including digital innovation.
- Implementation of innovative methods and innovation management.
- Organization of Innovation Contests, hackathons, etc.
- Supporting women in energy and women's role on the energy demand side and advising women as energy entrepreneurs in productive use activities.



OUR CLIENTS

The international donor community and national governments are highly focused on energy policies and strategies, and technical assistance for the implementation of the energy transition. Our Energy Department has broadened the circle of German and international institutional clients with whom we work. Our main clients are GIZ, the EU Commission

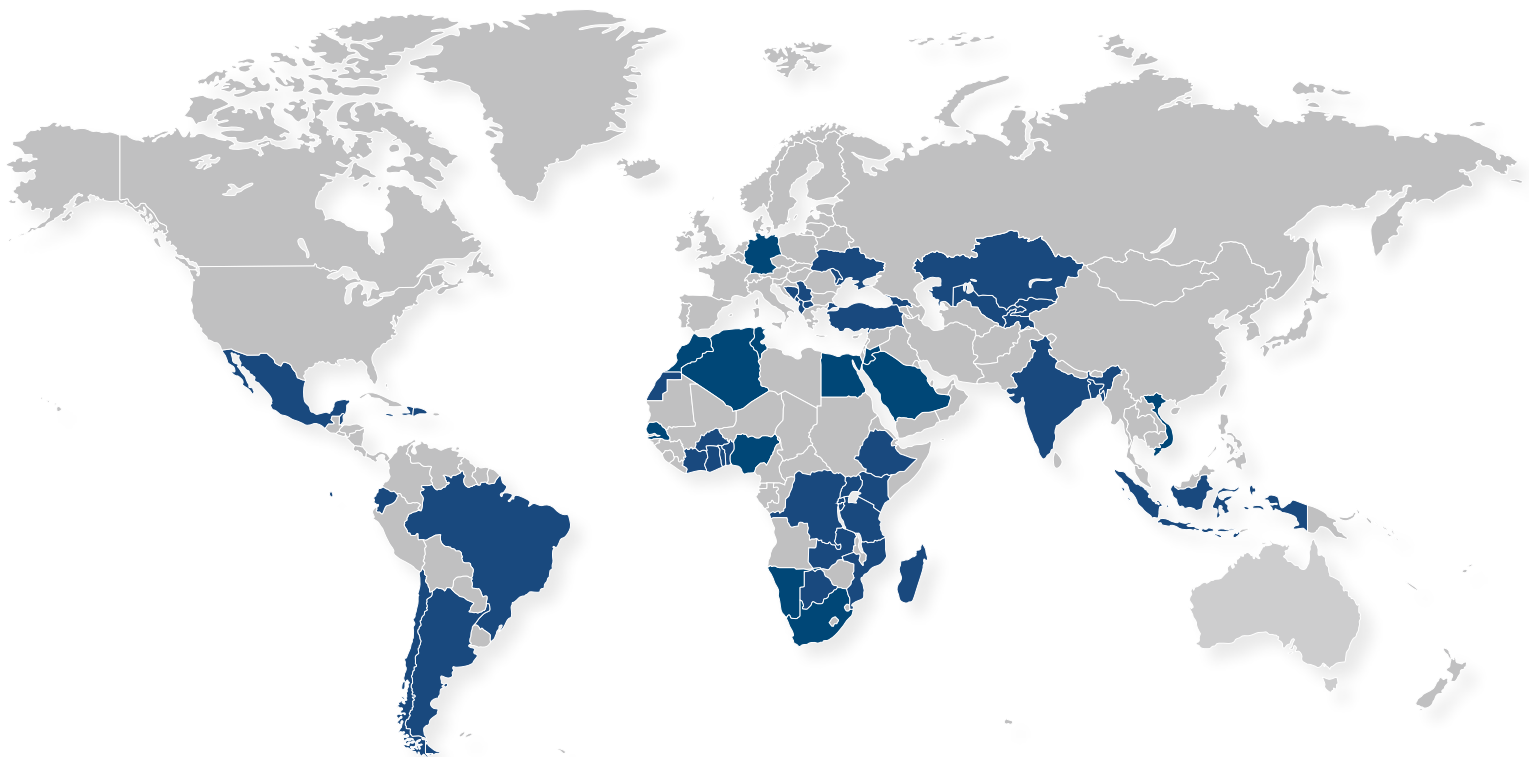
DGs International Partnership, NEAR, and KfW. Additionally, we have recently implemented and are implementing projects with development banks such as EBRD and EIB, development agencies of Switzerland, France, and the US, and the German Ministry of Economic Affairs and Climate Action.



OUR PROJECT COUNTRIES

As part of the GFA Group, the Energy Department works globally using the infrastructure of local GFA networks, subsidiaries, and project offices. We focus on countries where we have a strong presence and where our main clients are


active. The map shows the countries in which we are working on projects, or where we are undertaking business development activities. In addition to bilateral projects, we implement numerous regional or interregional projects.





MENA

ASSESSMENT OF ENERGY EFFICIENCY SERVICE MARKET POTENTIALS IN EGYPT AND THE FEASIBILITY OF ESTABLISHING A SUPER ENERGY SERVICE COMPANY




CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	03/2020 - 02/2022	107,279	Energy efficiency / policy and strategies	Egypt	

PROJECT DESCRIPTION

The objectives of this assignment were to analyse and assess potentials, options and possible pathways to improve the market conditions of providing energy efficiency services with a special focus on the possible establishment of a Super ESCo entity. The assignment was about the inception and overall feasibility of developing an advanced energy efficiency service market structure in the Egyptian system. It was done through the analysis of

structural potentials and economic feasibilities as well as by analysing the suitability of existing and future framework conditions concerning the establishment of a Super- ESCo. The final report planned for a possible implementation of a Super-ESCo, not yet about the launch of the implementation of a Super-ESCo.

RENEWABLE ENERGY AND ENERGY EFFICIENCY PROGRAM IN JORDAN (REEE II)



CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EC	11/2016 - 11/2020	4,801,900	Policies and strategies	Jordan	   

PROJECT DESCRIPTION

The overall objective of the REEE II project was to contribute to the development and implementation of effective policies that would allow Jordan to reach its renewable energy and energy efficiency (REEE) targets for 2020. Therefore, the project worked on complementing the relevant institutional, legislative and fiscal reforms, thus creating the enabling environment to mobilize public and private actors, in order to achieve the goals of 10% renewable energy and 20% of energy savings by 2020.

In addition, the project contributed to full scale implementation of activities for enhancing sustainable production and consumption patterns and inducing behavioral changes, including in the water sector, resource demand management, adoption of best available technologies, research & development and promotion of investments towards green and low carbon economy.

ENERGY EFFICIENCY IN PUBLIC BUILDINGS

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
KfW	02/2015 - 03/2023	3,110,639	Energy efficiency / pipeline preparation	Jordan	 

PROJECT DESCRIPTION



The overall objective of the project was to contribute to climate protection and reduction of budget constraints caused by high-energy costs of the Government of Jordan. The specific objective was to improve energy efficiency in public buildings and to therefore lower energy consumption and reduce CO₂ emissions.

The project supported implementation of specific energy efficiency (EE) measures in selected public buildings throughout Jordan. The building pool to be rehabilitated comprised approximately 200 buildings, amongst them public schools, some 30 health stations and hospitals, and around 15 administrative buildings.

Energy efficiency measures undertaken focussed mostly on energy efficient lighting, heating, and air conditioning. EE measures were combined with installation of rooftop PV.

The project consisted of two phases: a pilot phase, targeting five selected buildings to demonstrate EE technologies (head quarter of Ministry of Public Works, one school, two hospitals, one health centre); and a roll-out phase that targets around 195 buildings. The Pilot buildings were commissioned in March 2020, the buildings of the roll-out phase were commissioned in January - March 2022.

IMPROVEMENT AND EXPANSION OF THE JORDANIAN WATERS SECTOR'S ENERGY MANAGEMENT SYSTEM (ENMS)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2020 - 10/2021	578,889	Energy efficiency / education and training	Jordan	 



PROJECT DESCRIPTION

The aim of the project was to improve the Energy management in Jordan's water sector. Its core lied in embedding a systematic EnMS within the water sector. It created the necessary basis for decision-making and conditions that will accelerate energy efficiency-aware behavior by all stakeholders across the sector. The project combined energy-related, methodological and process advice to Jordan's water authority and the three independent statutory water supply companies (WSC) in the country with specific measures to optimize energy management in selected operational units.

The specific scope of work for the contractor was structured in three work packages (WP):

- WP 1:** Maintenance and improvement of the EnMS in existing EnMS implemented scopes (8 scopes) in the water sector towards achieving the EnMS' energy saving targets
- WP 2:** Supporting the implementation, monitoring and evaluating of the energy efficiency measures
- WP 3:** Expansion of existing EnMS scopes in the Jordanian water sector in accordance to the EnMS road map

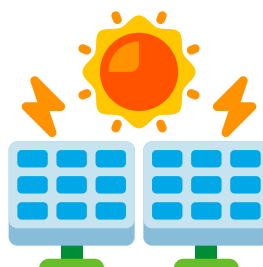
STUDY ON PTX REGULATIONS AND STANDARDS IN SELECTED MENA COUNTRIES

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2021 - 07/2022	109,500	Green hydrogen / policy and strategies	Jordan	 



PROJECT DESCRIPTION

The Jordanian-German Energy Partnership supported the Jordanian Ministry of Energy and Mineral Resources (MEMR) in increasing awareness about opportunities for hydrogen. With the present assignment, GFA supported the Jordanian administration in preparing a possible hydrogen roadmap by providing relevant data, assessments, and suggestions. Services provided include:

- Stakeholder engagement and coordination, set-up of an outreach mechanism to engage with relevant actors
- Policy and strategic framework in Jordan: interviews and desk research on the technical, industrial, regulatory, economic and infrastructure levers likely to foster the deployment of hydrogen in Jordan, as well as possible related industrial, economic, environmental, and social impacts
- Assessment of the preliminary study of possible pathways for green hydrogen in Jordan
- Gap analysis for further research on the institutional and regulatory framework, R&D, training, and capacity building levers
- Compilation of a roadmap that formulates policy recommendations to address these needs and which is aimed at the Jordanian
- Government and the donor community active in Jordan
- Identification of key players and suggest their potential role, including national and international industrial players likely to support the sector



PTX TRANSPORT OPTIONS AND EXPORT LOGISTICS ANALYSIS IN SELECTED MENA COUNTRIES

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	04/2022 - 11/2022	119,155	Green hydrogen / transport and logistics	Algeria, Morocco, Egypt	 

PROJECT DESCRIPTION

GFA elaborated on PtX transport options and export logistics for the MENA region, including PtX derivatives, for potential consumer and off-taker countries in the EU and Germany. This included different scenarios and a comparative technical-economic analysis on modes of transport of green hydrogen by pipeline in a short and a medium term and transport through maritime and land routes in a short and a medium term. The main tasks of the project were:



Task 1: Benchmark and need analysis of PtX transport options, export logistics and infrastructure in the EU and Germany.

Task 2: Preparation of PtX transport options comparison, setting and defining the criteria of the cost-benefit analyses (among others e.g. economical, ecological, sustainable, security criteria), collecting all necessary information and conducting macro-economic calculations.

Task 3: Thematic "deep dive" and cost benefit analyses, advising on preferable transport options for H₂ taking into account existing infrastructure.

Task 4: Recommendations and final results, drafting a Roadmap for PtX-transport options in coherence with the national H₂ strategy.

PROGRAM APIELO – ENERGY AUDITS FOR INDUSTRY

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	05/2021 - 12/2021	168,800	Energy efficiency / involvement of private sector	Morocco	 





PROJECT DESCRIPTION

GIZ set up the project "Improvement of Energy Infrastructure in the Oriental Region" (APIELO) which aimed at strengthening the capacities of private and public actors in the Oriental region of Morocco for the implementation of Renewable Energy (RE) / Energy Efficiency (EE). The project supported a better adjustment of supply and demand for RE/EE services and products, the development of RE/EE markets and jobs, and the introduction in the region of a RE/EE culture capable of ensuring the sustainability of the actions undertaken.

In order to achieve these results, it intervened according to four axes:

1. Strengthening of the regional governance RE/EE
2. Capacity Building and Awareness Raising
3. Accompaniment of flagship projects
4. Strengthening local enterprises

PROMOTION OF SUSTAINABLE ENERGY AND ENERGY EFFICIENCY IN THE PROVINCES OF MIDELT AND TATA (EDMITA / DKTI 3)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	06/2016 - 11/2020	3,590,385	Education, energy efficiency, renewable energy	Morocco	   

PROJECT DESCRIPTION


The objective of the project "Sustainable Energy in the Provinces of Midelt and Tata" (EDMITA), also known as DKTI 3, was to strengthen the capacities of the provinces Midelt and Tata to use the potential of renewable energy and energy efficiency (RE/EE) technologies for sustainable development.

The Moroccan solar plan chose the provinces to host solar power plants. EDMITA followed a participatory strategy development approach involving stakeholders at both communal and provincial levels. Furthermore, awareness raising campaigns as well as vocational training and capacity building were undertaken.

Realized pilot projects demonstrate the efficiency of the RE/EE technologies and the positive employment and pro-poor effects, in particular on women. The pilot measures were partly undertaken in cooperation with national agencies and ministries in order to facilitate prospective expansions.

According to the regional needs and potentials, the project implementation considered all suitable RE/EE technologies (in particular solar energy). At least two of the pilot projects were embedded in value-chain cooperation processes.

GREEN HYDROGEN FOR SUSTAINABLE ECONOMIC DEVELOPMENT AND A DECARBONIZED ECONOMY

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	07/2022 - 12/2023	552,600	Green hydrogen / policy and strategies	Tunisia	  

PROJECT DESCRIPTION

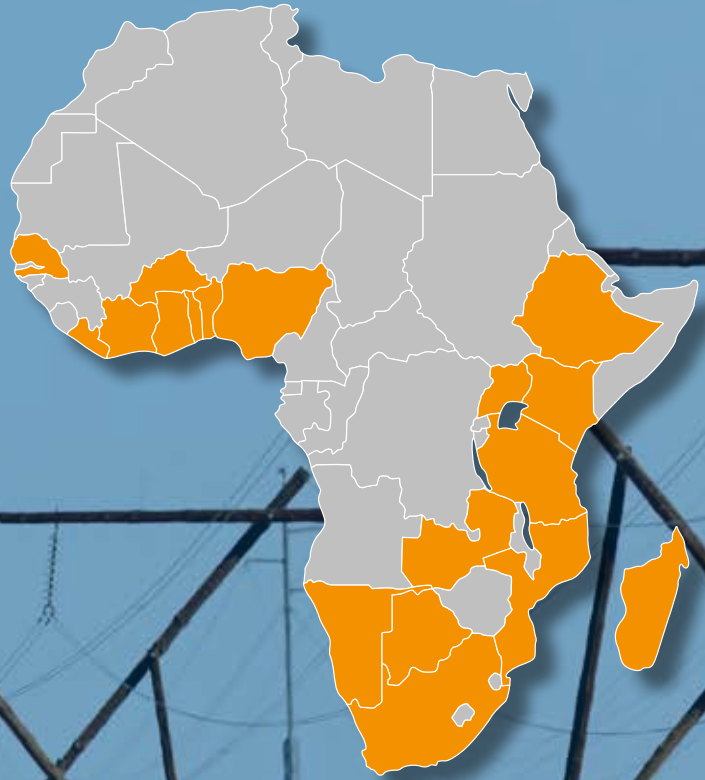
The mission "Promotion of Photovoltaics in the AGR/IAA sector in Tunisia" is part of the project "Strengthening the Solar Market".

The objective of the mission was to accompany key players (ANME, APIA, UTAP, CTAA and MARHP) in the promotion of photovoltaics in the agricultural and agri-food sectors at the national level as well as in three regions of the country: Sfax, Gabes and Jendouba based on the components of potential analysis, awareness raising, training and technical advice.

The specific scope of work for the contractor was structured in the following tasks:

- Task A:** Collaboration: Accompanying the Reflection Committee
- Task B:** Procedural advice on framework conditions for PV A grants and access to finance
- Task C:** Study of potential: Updating and deepening of the existing study
- Task D:** Communication and awareness-raising: Development of materials and implementation of awareness-raising campaigns
- Task E:** Training: Capacity building of key actors
- Task F:** Pilot Projects: Technical and Educational Support

SUB-SAHARAN AFRICA



TECHNICAL SUPPORT TO CI-ENERGIES FOR THE IMPLEMENTATION OF THE PROJECT FINANCED BY AFD AND EU

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
AFD	01/2019 - 01/2021	255,530	Access to energy / program management	Côte d'Ivoire	 

PROJECT DESCRIPTION

The main objective of the AFD-EU Program was to contribute to the access of the Ivorian population to sustainable electricity. More specifically, the Program aimed to improve the rate of access to electricity through the extension of urban networks, rural electrification and social connections (subsidized connections) and to increase hydropower generation by rehabilitating the Buyo Hydropower Plant.

The rehabilitation of Buyo also contributed to the limitation of greenhouse gas emissions of the power sector and thus contributed to Côte d'Ivoire's commitment to the Paris Agreement.

The implementation of the Programme has been organized into five components:

1. Rehabilitation of power generation facilities
2. Electricity Distribution System Reinforcement and Extension in 12 regional capitals
3. Access to electricity: electrification of 350 localities in rural areas
4. Social/subsidized connections,
5. Capacity building, supervision and project management

ASSESSMENT OF CLEAN COOKING TECHNOLOGIES

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	05/2021 - 12/2021	89,717	Access to energy	Ethiopia	  

PROJECT DESCRIPTION

The general objective of the assessment was a holistic contextual analysis on the current status of styles/designs of ICS and other clean cook stoves and alternative fuels to propose evidence-based viable intervention strategies to accelerate the transition to and scale up of clean cooking technologies. Subsequently, two themes were apparent in this objective:



1. Transition from improved cook stoves (ICS) to clean cook stoves (CCS)
2. Scale-up of clean technology adoption through large scale private investment in the sector

The study included four work streams:

1. Current context analysis
2. Impact evaluation of existing interventions
3. Assessment of issues and opportunities in the sector
4. Recommending strategies for transition and scale-up for CCS and alternative sustainable household energy



ASSESSMENT OF ELECTRIC COOKING (E-COOKING) STATUS IN ETHIOPIA & POSSIBLE SUPPORT POTENTIALS

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	06/2021 - 12/2021	90,664	Access to energy	Ethiopia	  

PROJECT DESCRIPTION

This assessment conducted a primary survey (using the online software Kobo to collect and manage the data) in selected areas of the country in addition to the secondary data survey and review. The objective of the primary survey was to understand the issues and opportunities for clean cooking adoption in Ethiopia

directly from the main market actors, i.e. consumers and suppliers. The survey therefore interviewed households (both adopters and non-adopters of e-cooking) and stove suppliers through different tools (e.g. for households both household interviews and focus groups).

RENEWABLE ENERGY AND ENERGY EFFICIENCY FOR THE PUBLIC SECTOR (REEEPUBLIC)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2020 - 10/2021	813,435	Energy efficiency / regulations	Ghana	  

PROJECT DESCRIPTION

This assignment was part of the technical cooperation project "Renewable Energy and Energy Efficiency in the Public Sector" (REEEPublic).

The five Outputs (O) followed different objectives but were mostly interlinked:



- 01** foresaw the drafting of implementing rules for two instruments of the amended Renewable Energy Act (REA).
- Under **02** a national standard with minimum requirements as well as criteria for the classification of buildings into different EE classes was developed. Furthermore, regulations for licensing and energy performance certification were drafted.

3. 03 followed a holistic approach to draft a Building Sustainable Energy Action Plan for the national initiative to promote EE and RE in public institutions. A communication strategy was developed alongside with an institutionalized MRV system.

4. Under **04** a pilot project to retrofit 8 buildings was implemented. This required the conduction of energy audits, drafting an action plan for each of the 8 buildings, the preparation of tender documents, and the dissemination of the results.

5. All capacity building activities fell under **05** and were demand driven to the stakeholders' needs. To ensure the sustainability of the assignments outcomes all activities were closely coordinated and implemented with the stakeholders.

MARKET ENTRY INTO RENEWABLE ENERGIES AND ENERGY EFFICIENCY FOR THE PRODUCTIVE SECTOR

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	10/2019 - 12/2022	1,718,002	Energy efficiency / private sector involvement	Ghana	 

PROJECT DESCRIPTION

The objective of the project was to improve the prerequisites for the use of renewable energy and energy efficiency solutions by large private-sector electricity consumers and energy supply companies. The strategic focus of the project was, on one hand, on overcoming market entry barriers to the implementation of RE and EE solutions by large electricity consumers. On the other hand, public utilities were prepared for adapting business models to increased self-generation of electricity by their customers.


The project worked on three outputs:

Output A: Market development and regulation for EE/RE solutions

Output B: Investments preparation for major private electricity consumers

Output C: Business strategies for public electricity utilities

SUPPORT TO REFORM IN THE ENERGY SECTOR IN LESOTHO (PHASE I)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EDF	06/2018 - 12/2023	1,433,850	Energy policies and strategies	Lesotho	

PROJECT DESCRIPTION

The project supports the strengthening and restructuring of Department of Energy (DoE) as the institution responsible for policy development and assists in the institutional reforms for the entire sector with emphasis on availability of sustainable energy to the rural areas. Therefore, the project acts as a backstopper to the DoE on critical decisions to be made on the organizational structure in the sector and in the process of DoE becoming more and more the leader for the necessary reform in the sector.

The Government of Lesotho (GoL) is supported in the operationalization of the Energy Policy, the implementation of the new Electrification Master Plan and the project assists the DoE in preparing for the second phase, looking at larger scale investments and up-scaled projects in the energy sector, along with further sector reforms should they be required.

PROMOTION OF RURAL ELECTRIFICATION THROUGH RENEWABLE ENERGIES (PERER III) – SUPPORT TO RURAL ELECTRIFICATION

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	09/2022 - 03/2025	2,145,600	Access to energy	Madagascar	  

PROJECT DESCRIPTION

(PERER III is funded by the German Government (BMZ) and implemented by GIZ in collaboration with the Ministry of Energy and Hydrocarbons (MoEH) as a key partner. It supports the improvement of the Legal Framework, Training and Projects in Rural Electrification. The Consultant is involved in three work packages/lots:

1. Framework

- Support the implementation of measures under the Legal Framework
- Support the creation of an Electrification Monitoring System for three regions (Atsimo Andrefana, Anosy and Androy)
- Assist the Agency for Rural Electrification Development (ADER) in two Calls for Projects; d) Support the organisation of three sessions of the Public-Private Exchange Platform (PPEP) and three sessions of the Technical and Financial Partners (TFP)

2. Projects



Support the development of projects within the framework of the Calls for Projects and in line with ADER's Roadmap. Preliminary studies for 81 Rural Electrification projects are carried out. Furthermore, 23 integrated Rural Electrification projects are followed up to their inauguration, including support to the preparation of detailed studies (Business Plans), awareness raising campaigns with the beneficiary communities and support to the acquisition of funding, permits and the implementation of the projects on the ground.

3. Training

Integration of an employment platform into the PERER training concept based on vocational training developed in countries like Germany. PERER will be assisted in the identification of two training centres. Finally, the contractor will support the purchase of equipment for the training centres (solar laboratory) and will accompany two training courses per training centre.



GLOBAL ENERGY TRANSFORMATION PROGRAMME (GET.TRANSFORM) – DECENTRALIZED RENEWABLE ENERGY FOR RURAL AREAS

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	12/2019 - 12/2023	3,600,265	Access to energy / regula- tionspipeline preparation	multi- country	 

PROJECT DESCRIPTION

The program module of GET.transform focuses on providing public policy advice and cutting-edge technical advisory services to public actors for governing their energy transitions and creating the necessary environment for Decentralized Renewable Energy investments.

GFA supports GET.transform in successfully implementing concrete measures in the areas of Decentralised Renewable Energy focusing on Mini-Grid development (Rural Electrification Planning, Mini-Grids, Productive Use of Electricity and Standalone Systems).

GFA contributes to the achievement of the GET.transform project outputs within specific Work Packages and provides in-depth knowledge and expertise in the form of STE assignments.

The assignment of STEs are organized on short-notice according to the demand of GET.transform and its project partners. The five Work Packages are:

Work Package 1

Rural electrification planning and data management

Work Package 2

Development of mini-grid regulatory and policy framework

Work Package 3

Standalone systems (solar home systems, solar lanterns, pico-hydro)


Work Package 4

Systematic planning for productive use of electricity

Work Package 5

Impact evaluations including baseline studies

GET.INVEST PROJECT DOCUMENTATION DEVELOPMENT

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	09/2020 - 12/2023	1,199,485	Access to energy / regula- tions pipeline preparation	multi- country	

PROJECT DESCRIPTION


GET.invest PDD provides project documentation services to RE developers supported under GET.invest when insufficiencies in project documentation have been identified as a bottleneck to access to finance. GFA is tasked to contact the private developers and co-develop with them the scope of the service, to be approved by GIZ. The service is realized through specific studies (e.g. feasibility studies, resource assessments, ESIA documentation).

The project is active in Sub-Saharan Africa and supports IPP, Mini-Grid and Captive Power developers. the GET.invest project out-

puts and provides in-depth knowledge and expertise in the form of STE assignments. The assignment of STEs are organized on short-notice according to the demand of GET.invest and its project partners.

Studies include amongst others: Feasibility Studies, Technical Design Studies, Resource Assessments, ESIA Studies, Grid Interconnection Studies, Demand Assessments

FRAMEWORK AGREEMENT – GET.INVEST “FINANCE READINESS SUPPORT”

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	09/2021 - 09/2023	226,300	Access to energy / regulations pipeline preparation	multi-country	

PROJECT DESCRIPTION

The GET.invest Finance Readiness Support (FRS) is a service of GET.invest. As such, FRS targets local, earlier stage micro-, small- and medium-sized energy companies and provides hands-on, in-depth business development advisory and coaching along the fundraising journey.

GFA provides coaching, business development and access to finance support to SME based in Sub-Saharan Africa, namely in

Rwanda, Togo, Mozambique and South Africa. In its advisory portfolio, GFA currently has the following clients:

- A Togo-based energy access company that is expanding its activities in West-Africa and moving into B-2-B markets.
- A Rwanda-based electric mobility company that is scaling up activities in Rwanda

SUSTAINABLE ENERGY FOR ALL INITIATIVE (SE4ALL) – WESTERN AND CENTRAL AFRICA

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EC	12/2013 - 12/2022	26,483,650	Policies and strategies	multi-country	  




PROJECT DESCRIPTION

Assistance to the Western and Central African countries and to relevant regional structures to increase their administrative and technical capacity for sector policy analysis, development and implementation in the field of sustainable energy, energy efficiency and energy supplies. As part of this SE4ALL assignment GFA provided the following services:

- **Burundi:** Planning of priority measures for improved energy efficiency and sustainable development of the biomass sector
- **Benin:** Formulation of the program for institutional reinforcement in the energy sector
- **Ghana:** Identification and formulation of activities in support to sustainable energy solutions for agro-processing
- **Liberia / Sierra Leone / Guinea:** Environmental, Social and Climate Change Impact Scoping Study for the Mano Hydropower Project Development / Mano River Union
- **Liberia:** Technical Assistance for Capacity Building and Improved Functioning of the Bureau of Electricity and Renewable Energy (Department of Energy, Ministry of Land, Mines and Energy)
- **Nigeria:** Evaluation of AFD proposal for vocational training for NAPTIN
- **Benin:** Assistance for the realization of a national energy information system
- **ECOWAS:** Identification and formulation of a program for regional assistance for ECOWAS' energy sectors within the 11th EDF
- **Cape Verde / ECRREE:** Technical Assistance to formulate the Action Agenda for the 2 GW solar corridor in West Africa
- **DR Congo:** Study mission to identify opportunities for the use of energy sources adapted to the rural areas located on the periphery of the Yangambi Biosphere Reserve and the Garamba National Park



SUSTAINABLE ENERGY FOR ALL INITIATIVE (SE4ALL) – EASTERN AND SOUTHERN AFRICA

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EC	12/2013 - 12/2019	15,267,250	Policies and strategies	multi-country	  

PROJECT DESCRIPTION

Assistance to the Eastern and Southern African countries and to relevant regional structures to increase their administrative and technical capacity for sector policy analysis, development and implementation in the field of sustainable energy, energy efficiency and energy supplies. As part of this SE4ALL assignment GFA provided the following services:

- **Tanzania:** National Electrification Programme – Implementation of phase II of the rural electrification prospectus formulation
- **Eritrea:** Stocktaking analysis and definition and implementation of a sustainable energy policy in Eritrea, including focal areas for EU support
- **Ethiopia:** Support of the implementation of the Ethiopian energy authority Programme of activities 2014-2020
- **Lesotho:** Scoping of potential interventions in the energy sector (policy and institutional framework, energy options, energy services, financing options, gender and equity)
- **Madagascar:** Stocktaking, preparation of a joint Declaration document and project evaluation in the Energy Sector in Madagascar
- **Multi-country:** Legal framework assessment support to AUC in the development of a legal harmonized continental regulatory framework for the energy sector in Africa
- **Zambia:** Formulation of the action “Support to the Zambia Energy Sector: Increased Access to Electricity and Renewable Energy Production”
- **Uganda:** Rural Electrification & Energy Access - Implementation of SE4ALL Action Plan and Support to the SE4ALL Secretariat at Uganda’s Ministry of Energy and Mineral Development
- **Ethiopia:** Least-cost Energy Planning - Support to the Ethiopian Energy Authority for Energy Efficiency and Conservation
- **Madagascar:** Stocktaking in the Energy Sector, analysis of the existing project documents related to the HV transmission in project between Antananarivo and Toamasina
- **SADC:** Renewable Energy and Energy Efficiency Strategy and Action Plan (REEESAP)

TECHNICAL ASSISTANCE FOR IMPLEMENTATION OF WACEC PROGRAM WITH DEVELOPMENT/ REVISION OF REGULATORY/TECHNICAL INSTRUMENTS

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2022 - 10/2024	427,085	Regulations / renewable energy	multi-country	

PROJECT DESCRIPTION


The WACEC initiative, which was launched by ECREEE in cooperation with other organizations incl. the International Renewable Energy Agency (IRENA), seeks to bolster the development of utility-scale renewable energy power plants and their integration into the West African power systems. The initiative builds on ongoing efforts by national and regional partners and is structured around the following implementation pillars:

1. The identification of ecologically acceptable areas with high potential for renewable energy sources and the cost-effective installation of power plants
2. National and regional planning for integration of renewable energy generation options into national and regional electricity generation and transmission master plans

3. Strengthening of political, regulatory and institutional frameworks
4. building capacity to plan, maintain, and manage electricity systems with large shares of electricity from renewable sources
5. Fostering public and political support for the initiative and raising awareness of its benefits

In this assignment the focus lies on the Solar Corridor, which includes West African countries where large solar power plants could be built at low cost while benefiting from economies of scale, with the aim of creating the necessary conditions to develop 10 GW by 2030.

SCOPING STUDY ON BIOMASS-TO-LIQUID AND POTENTIAL SUSTAINABLE AVIATION FUEL (SAF) PRODUCTION



CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	03/2023 - 08/2023	71,380	Green hydrogen / alternative fuels	Namibia	

PROJECT DESCRIPTION

GFA is called to assess the potential of using local residue biomass from the context of bush encroachment to produce PtL-SAF and other high potential PtX products. Specific objectives are:

1. The concept of Power-to-X is described in a concise manner, elaborating on the role of biogenic residues as carbon source for sustainable transport fuels
2. For the specific context of Sustainable Aviation Fuel, relevant BtL and PBtL technology pathways are described
3. The viability of Namibian bush-biomass as a primary feedstock for PtL/PBtL applications is analysed, including feedstock specifications, sustainability requirements, certification, availability and potential risks
4. In-depth case studies are developed around the most feasible PtL/PBtL applications, including synergies with existing and planned bush-biomass projects, such as the 40 MW Otjikoto Biomass Power Plant project of NamPower
5. Overall conclusions are drawn regarding the techno-economic feasibility for bush biomass based BtL/PBtL production in Namibia
6. Based on a gap-analysis, a roadmap for the establishment of a PtL/PBtL-SAF pilot project and/or demonstration plant in Namibia is drafted

IMPLEMENTATION OF ENERGY MANAGEMENT SYSTEM AND ENERGY EFFICIENCY NETWORKS IN MANUFACTURING INDUSTRIES

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	04/2019 - 11/2022	1,353,514	Energy efficiency / involvement of private sector	Nigeria	 

PROJECT DESCRIPTION

The second Nigerian Energy Support Programme (NESP II) aimed at enabling and fostering investments in a domestic market for renewable energy and energy efficiency, and improving access to electricity in Nigeria. The European Union and the German Government co-funded the programme. The three-year programme was implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in collaboration with the Federal Ministry of Power, Works and Housing (FMPWH) and other stakeholders. The project, "Implementation of EnMS and EEN in Manufacturing Industries in Nigeria" was a key component within the Enabling

Environment for RE and EE investments unit of NESP II and aimed at supporting the industrial sector in the implementation of ISO 50001 standard and EEN. The project was segmented into four work packages:

1. Implementation of EnMS in five manufacturing industries,
2. Strengthening and expanding EEN,
3. Implementing Energy Audit, and
4. Communication of outcomes.



SUPPORTING THE DEVELOPMENT OF A MARKET FOR LPG CLEAN COOKING

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	09/2021 - 11/2022	610,160	Access to energy / involvement of private	Nigeria	  

PROJECT DESCRIPTION

The project was under the NESP program and aimed at supporting the LPG cooking sector of Nigeria by addressing gaps in the following fields:

- **Enabling Framework:** identify the key stakeholders, key framework and its gaps and the status and potential of the
- LPG Clean Cooking Market, and recommends a strategy for the effective promotion of LPG Clean Cooking.
- **Business Development:** assistance in providing hands-on training and advice (covering legal, technical and financial aspects) to selected companies, in order to help them develop and implement viable business models on LPG clean cooking to attract third-party investments.
- **Access to Finance:** support in providing hands-on training to FIs on due diligence and risk assessment, and the development of financial products for LPG clean cooking projects.

STUDY ON THE POLICY AND REGULATION FRAMEWORK FOR THE BUILD-UP OF A HYDROGEN MARKET




CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	07/2022 - 02/2023	90,620	Polices and strategies / green hydrogen	Nigeria	 

PROJECT DESCRIPTION

The study provided an overview of the current regulatory and policy framework of the renewable and fossil sector in Nigeria. It identified gaps that hinder the market ramp up for green hydrogen and provided recommendations to address these barriers. Services provided included:

- Benchmark analysis: State international best practices for PtX regulations and standards along the value chain for key PtX products/derivatives.
- Review of regulatory framework and regulatory bodies in Nigeria: highlight Nigeria's potential for the build-up of a hydrogen market and characteristics
- Needs assessment of the policy and strategic framework in Nigeria, including hydrogen demand & supply; stakeholders' definition of H₂ scope; relation to the existing policy framework; recommendations on the priority for further research; infrastructure; bottlenecks in ramping up renewable energy systems, etc.
- Policy roadmap: outline the needs for further research on the institutional and regulatory framework, R&D, training, and capacity building levers; formulate and prize policy recommendations to address these needs; identify key players and suggest their potential role

HIGHER EDUCATION PROGRAM FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY (PESEREE)




CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	02/2021 - 07/2022	569,950	Renewable energy / education and innovation	Senegal	  

PROJECT DESCRIPTION

The objective of the program PESEREE was to enhance the co-operation between the MIER universities with the private sector. PESEREE II was working in three components:

- Broadening the offer of Renewable Energy/Energy Efficiency training in ISEPs (Institut Supérieur d'Enseignement Professionnel)
- Strengthening the capacities of the Inter-University Master's Degree in Renewable Energy (MIER) network for the implementation of their training program
- Anchoring measures to strengthen entrepreneurial skills in partner institutions

PROGRAM FOR SUSTAINABLE ENERGIES – COMPONENT ENERGY EFFICIENCY

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	01/2019 - 11/2021	2,074,649	Energy efficiency / involvement of private sector	Senegal	  



PROJECT DESCRIPTION

The Sustainable Energy Programme aimed at improving the conditions for the implementation of climate friendly sustainable energy services.

The programme's focus area 3 (Energy Efficiency) undertaken by GFA aimed at the improvement of information and offers of services for public and private stakeholders, which highlight the economic potential of energy efficiency. The target groups of the project were private consumers as well as commercial and industrial energy users. Priority segments were identified with the programme cooperation partners, based on existing preliminary studies. Group of products (e.g. lamps, refrigerators, air-conditioning, etc.) and sectors (households, private and/or public office

buildings, workshops, production facilities, etc.) were addressed by specific applications. Advice was provided to the Agency for Economics and Energy Management (AEME) on activities carried out for information purposes, awareness raising and pilot projects addressing users and providers. The project selected specific companies or institutions for pilot installations showcasing EE technologies and demonstrating their economic attractiveness for investors and financing institutions. Accompanying measures were also developed by the Ministry of Petroleum and Energy (MPE) and AEME, such as regulatory initiatives, voluntary labelling which document energy consumption standards. Regulatory processes were pursued in line with the longer term processes of the Economic Community of West African States, ECOWAS.

RENEWABLE ENERGY AND ENERGY EFFICIENCY, SOUTH AFRICAN GERMAN ENERGY PROGRAMME (SAGEN III) AND IMPLEMENTATION SUPPORT FOR MUNICIPAL ENERGY MANAGEMENT SYSTEMS (MEMS) (SAGEN IV)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2018 - 10/2024	2,673,187	Energy efficiency	South Africa	 

PROJECT DESCRIPTION



The overall objective of the GIZ programme was to improve the use of conducive framework conditions for renewable energy and energy efficiency in South Africa.

The SAGEN III project supported the development and functioning of energy management systems in municipalities (MEMS) in South Africa to enable selected municipalities to analyse their energy balance, identify energy-saving opportunities, and draft appropriate strategies to plan and implement (energy saving) measures based on verifiable energy data.

SAGEN IV builds on SAGEN III previous MEMS activities in order to

- continue supporting the municipalities previously cooperating with SAGEN towards the establishment of Municipal Energy Management Systems, development of ambitious, yet realistic Municipal Energy Efficiency Action Plans (MEEAPS) and identification of measurable energy efficiency interventions
- expand the scope of close cooperation to additional municipalities to be selected via a transparent and fair selection process
- develop a valuable Toolbox and provide technical training material and ad-hoc capacity to set the basis for future replication, expansion and scale-up of such Municipal Energy Management Systems activities to a larger number of municipalities in the future

SOUTH AFRICAN GREEN HYDROGEN PROGRAMME REGULATORY FRAMEWORK AND STRATEGIC PLANNING

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	10/2021 - 03/2023	185,044	Polices and strategies / green hydrogen	South Africa	 


PROJECT DESCRIPTION

The 'H2.SA' project has been initiated focusing on supporting South African stakeholders from the public and private sector as well as civil society in setting-up favourable regulatory, institutional and technical framework conditions for a green and sustainable hydrogen economy. GFA is responsible for the following activities:

- Formulation of recommendations for improving the strategical (planning) basis and policies for a green H₂/PtX economy

- In-depth study on the current planning and policy landscape related to green H₂/PtX worldwide (benchmark study) and in SA
- Formulation of recommendations for improving the strategic planning and policy basis
- Formulation of recommendations for improving green H₂/PtX legal and regulatory framework in South Africa
- Review of the South African Hydrogen Society Roadmap (HSR) and other relevant national documents on legal and regulatory framework

SUPPORT IN THE AREAS OF OPERATIONAL PLANNING FOR THE PROJECT "PROMOTING THE DEVELOPMENT OF A HYDROGEN ECONOMY FOR SOUTH AFRICA (H2.SA)"

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2021 - 12/2023	121,800	Polices and strategies / green hydrogen	South Africa	

PROJECT DESCRIPTION


The technical component 'H2.SA' under the National Hydrogen Strategy has been initiated focusing on supporting South African stakeholders from the public and private sector as well as civil society in setting-up favourable regulatory, institutional and technical framework conditions for a green hydrogen economy. In detail, four areas of intervention (Outputs) have been defined:

- Strategy Development and Regulatory Framework

- H₂ Economy and Private Sector Involvement
- Research, Innovation and Training
- Environment and Social Affairs

The objective of this assignment is the support of the operational planning process for the new project "Promotion of Hydrogen in South Africa (H2.SA)" throughout the entire project duration. By one business coach.

RENEWABLE H₂ MARKET POTENTIAL AND VALUE CHAIN ANALYSIS

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2022 - 09/2023	516,495	Renewable energy / education and innovation	South Africa	


PROJECT DESCRIPTION

Part of "Promoting the development of a green hydrogen economy for South Africa (H2.SA)", the activities included in this project are focused on an improvement of the conditions for companies to participate in a South African green hydrogen economy, generating and improving information about the renewable H₂ market potential for South Africa and assessing most feasible applications in different time horizons. The H₂/PtX value chain is to be analysed in detail to detect its strengths as well as weaknesses, according to the requirements of the emerging H₂ market. From

this, opportunities and recommendations for business enterprises and local research academia shall be developed, to close the identified gaps along the value chain.

Besides this, the activities of this tender aim at strengthening the technical capabilities of selected actors from politics, business, research and civil society on the subject of (renewable) hydrogen. The fulfilment of these two main targets may pave the way for South African companies to participate in a South African (green) hydrogen economy and for improved technical capabilities.

PROGRAMME FOR SUSTAINABLE ENERGIES – COMPONENT ENERGY EFFICIENCY

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	01/2022 - 11/2022	156,916	Energy efficiency	Uganda	


PROJECT DESCRIPTION

Promotion of Renewable Energy and Energy Efficiency Programme (PREEEP): PREEEP supported strategies to increase access to clean energy in rural and peri-urban areas. This entailed support to a coherent policy framework, improvement of market development, skills development for technicians as well as the mainstreaming of energy at the district level.

PREEEP supported the Ugandan Ministry of Energy and Mineral Development (MEMD) in major outputs:

- Improving the policy framework for increasing access to clean energy with an Outcome indicator
- Improvement of market structures for Renewable Energy and Energy Efficiency technologies, and energy efficiency promotion among medium and large-scale consumers of energy
- Skills development
- Decentralisation: aims at streamlining local capacities for mainstreaming clean energy

H₂/PTX-MARKET OPPORTUNITIES FOR SOUTH AFRICA: ANALYSES OF LIGHTHOUSE-PROJECTS AND ENVIRONMENTAL-SOCIAL IMPACT ASSESSMENT

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2022 - 08/2023	1,187,400	Polices and strategies / green hydrogen	South Africa	

PROJECT DESCRIPTION

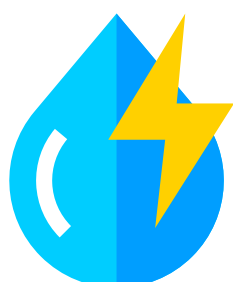
The project "Promoting the development of a hydrogen economy for South Africa (H₂.SA)" is part of the Development Cooperation (DC) program "Energy and Climate (Green Economy) in South Africa". The program aims at supporting the partner government in achieving its climate goals and to contribute to a more environmentally sustainable and less coal-based as well as climate-smart economy. The activities included in this tender "H₂/PtX-Market Opportunities for South Africa:

- Analyses of Lighthouse-Projects and Environmental-Social Impact Assessment" are focused on facilitating the realization of renewable H₂/PtX-Projects in South Africa, by improving the requirements for companies to participate in a South African H₂ economy (Output-Indicator 2)

- Improve the knowledge of relevant stakeholders on potential environmental and social impacts of a hydrogen economy

Concrete Services provided by GFA:




- SITE MAPPING of suitable sites for H₂/PtX production with a focus on export opportunities
- Pre-feasibility studies for selected H₂/PtX lighthouse projects
- Environmental and social impacts of green hydrogen projects in South Africa
- Handbook "How to do an environmental and social impact assessment (ESIA) for H₂/PtX projects in South Africa







REEEP II - RENEWABLE ENERGY AND ENERGY EFFICIENCY PROGRAMME II: IMPLEMENTATION OF COMPONENT 3 (SOLAR ROOFTOP)



CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	02/2020 - 01/2022	680,000	Renewable energy	Bangladesh	  

PROJECT DESCRIPTION

GFA provided technical assistance to the Government of Bangladesh on implementing the Solar Rooftop Programme under the net-metering guideline. The project established a Solar Service Desk providing guidelines for equipment and installation of roof-

top solar systems and conducted a series of capacity building and awareness raising campaigns. Pilot projects were established to showcase the technology and use as demonstration projects.

FEASIBILITY STUDY FOR AFFORDABLE HOUSING

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
KfW	12/2021 - 05/2023	197,990	Energy efficiency	India	 



PROJECT DESCRIPTION

The study aims to provide input for a potential appraisal mission of a joint green / energy efficient affordable housing project in Tamil Nadu, India, between TNSCB and KfW. The scope of work covers **nine major components**:

- Overview of Indian affordable housing market
- Analysis of energy consumption patterns in the affordable housing sector and definition of baseline
- Suggestions of suitable energy efficiency and other green measures and analysis of energy saving potentials

- Analysis of a suitable energetic performance standard to be applied for the project, project executing
- Agency analysis
- Target group analysis
- Environmental & social due diligence
- Mitigation of and adaptation to climate change, project pipeline development and evaluation of financing requirements

ELECTRIFICATION THROUGH RENEWABLE ENERGY (ELREN)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	04/2017 - 06/2020	1,460,086	Access to energy	Indonesia	 



PROJECT DESCRIPTION

ELREN aimed at

1. improving conditions for functional and environmental friendly operation and maintenance structures for RE off-grid systems in Indonesia,
2. integrating standards for quality and scope of service into the design of off-grid RE electrification programmes, and
3. improving coordination activities for off-grid electrification.

In addition, the Directorate-General of New Renewable Energy and Energy Conservation (EBTKE) was supported in taking up a leadership and coordination role amongst various Ministries involved in planning and managing rural electrification programmes. Thereby, the project promoted institutionalising of knowledge about using RE for off-grid electrification in Indonesia.

TECHNICAL SUPPORT FOR THE IMPLEMENTATION OF THE CIRTS PROJECT IN VIET NAM

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	12/2021 - 11/2023	1,925,000	Regulations / renewable energies	Vietnam	 



PROJECT DESCRIPTION

The Commercial and Industrial Rooftop Solar (CIRTS) project aims to improve the preconditions for the development of commercial rooftop solar energy (RTS) through the analysis and assessment of prevailing applicable standards, the development and adaptation of relevant regulatory and technical regulations for RTS, the development of key stakeholders' (power sellers and purchasers) capacities for RTS development, and the support to improve the

Electricity Viet Nam's (EVN) information base for the development of RTS projects. The support from the CIRTS exemplary activities cover three action areas including:

- Legal and regulatory framework
- Capacity development
- Information base improvement

TECHNICAL SUPPORT FOR THE IMPLEMENTATION OF THE 4E PROJECT IN VIET NAM

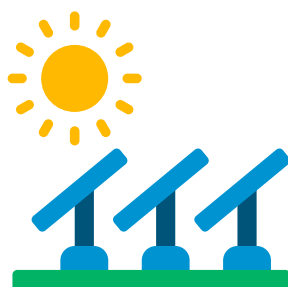
CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	11/2021 - 12/2023	1,925,000	Policies and strategies	Vietnam	   

PROJECT DESCRIPTION

The project objective is that the prerequisites for using renewable energies and increasing energy efficiency have been improved at key players from government and industry. The energy sector governance is enhanced, and the regulatory framework and legal basis are in place for the large-scale expansion of renewable energy as well as the implementation of energy efficiency measures and for the compliance with the climate change commitments of

Viet Nam. Further depth has been added to the specialist knowledge of decision-makers for the successful formulation and implementation of policy guidelines in the sector:



- Legal and regulatory framework
- Capacity development
- Technology cooperation



EUROPE



SMART ENERGY MUNICIPALITIES PROJECT (SEMP)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
SECO	07/2019 - 11/2024	2,331,759	Energy efficiency / pipeline preparation	Albania	 

PROJECT DESCRIPTION

The Smart Energy Municipalities Project (SEMP) is supporting Albanian municipalities in energy management and in the implementation of the national energy policy. Energy efficient municipalities should contribute to a low-carbon development of the economy, improved quality of life and reduced pollution of the environment. SEMP has two main objectives of "Improved Energy Management Framework" & "Better services through effective institutions".

These objectives are pursued through the development of a local Energy Management System (EMS) based on the European Energy Award (EEA) in four pilot municipalities, which are complemented by tailored capacity building and awareness raising measures, as well as EE&RES quick-win investments. Taking this as a basis, the project will prepare and introduce a countrywide implementation of this approach, through the design and support of the roll-out of the National Energy Management Framework.

EXPORT INITIATIVE ENERGY (PHASES 1 - 5)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
BMWK	02/2008 - 12/2025	12,280,267	Involvement of private sector	Germany	 

PROJECT DESCRIPTION

The Export Initiative Energy represents one instrument of the German export promotion policy under the responsibility of the Federal Ministry of Economic Affairs and Climate action (BMWK).

The Technical Secretariat of the Export Initiative Energy supports German SMEs in the export market for "energy efficiency and renewable energy" including hydrogen and elaborates policy recommendations for further export promotion in the energy sector based on monitoring and evaluation of the EI activities.

The focus is to provide easier access to foreign markets by participation in trade fairs or delegation visits, business matching, supporting technology presentations and conferences, an internet market place, country specific market studies and market consultancy. All renewable technologies are targeted as well as energy efficiency and hydrogen technologies in buildings, transport, and industry.

SUPPORT FOR THE IMPLEMENTATION OF THE 3RD ENERGY PACKAGE WITH A FOCUS ON ENERGY EFFICIENCY AND RENEWABLE ENERGIES




CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EC	10/2016 - 12/2019	2,363,855	Policies and strategies regulation	Kosovo	

PROJECT DESCRIPTION

The overall objective of the project was to create conditions for a secure energy supply and the provision of quality and affordable services for citizens, to enhance sector reforms and attract private investment, to mitigate the impact of energy activities on the environment as well as to move forward Kosovo's energy system integration in regional and European energy markets. The project worked in five main components:

1. Legal framework upgrade
2. Improve quality of energy data
3. Support for planning and monitoring of EE and RE
4. Financing instruments and EE / RE Fund
5. Visibility activities

PROCUREMENT OF IMPLEMENTER FOR PILOT INCENTIVES FOR ENERGY EFFICIENCY

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
MCC	09/2019 - 09/2022	4,983,068	Energy efficiency / involvement of private sector	Kosovo	  

PROJECT DESCRIPTION

The project operated under the framework of the Reliable Energy Landscape Project (RELP), which is part of the Kosovo Threshold Programme Agreement. The overarching objective of the RELP was to address the country's unreliable energy supply by lowering energy use through piloting household investments in energy efficiency.

The project was thereby responsible for the implementation of the RELP's first component – Pilot Incentives for Household Investment in Energy Efficiency (PIEE) which aimed at providing

incentives for raising awareness and enabling residential consumers to invest in retrofits to reduce household energy consumption, as well as incentives aimed at increasing the involvement of women in energy sector business opportunities, and efficiency investments. The primary technical focus of the PIEE intervention packages were energy efficiency measures that reduce the consumption of electricity for heating and promote the use of energy efficient heating devices.

KOSOVO ENERGY PROJECT (KEP)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	08/2021 - 08/2022	206,820	Regulations / energy efficiency	Kosovo	 

PROJECT DESCRIPTION

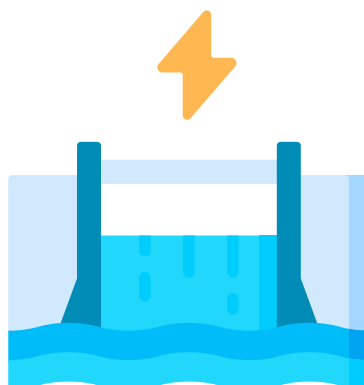
The overall objective of the Kosovo Energy Project (KEP) was to have an updated legal and regulatory framework related to EE and RE in the building sector which was in line with the latest EU regulations, and to enable partners to choose from options and possible mechanisms for financing of EE and RE in the private/residential sectors.

The Specific Objective I was to enable KEEA and Energy Department within ME and DSPCH within MESPI, to successfully harmonize the legal and regulatory framework for the implementation

of EE&RE in the building sector, considering the 2018 recast Energy Performance of Buildings Directive (EPBD).

As Specific Objective II, the partners at the Ministry of Economy had an access to developed Administrative Instruction (AI) for Energy Service Companies (ESCO).

Specific Objective III was to enable the Kosovo Energy Efficiency Fund (KEEF) to choose from possible measures which support EE and RE in the residential/ private sector.



ESCO PROJECT PIPELINE PREPARATION IN THE PUBLIC SECTOR IN BIH, MONTENEGRO, SERBIA

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EBRD	06/2019 - 12/2021	369,970	Pipeline preparation / energy efficiency	multi-country	

PROJECT DESCRIPTION

The objectives of this assignment were:

- To identify a project pipeline of technically and commercially viable and bankable EnPC and ESC projects (both "ESCO Projects") with a combined investment value of € 10 million equivalent or more in street lighting, public buildings, district heating and water plants. To rank them in terms of (i) ease of preparation, (ii) urgency of investments, (iii) importance of project for developing the ESCO market.
- To support the preparation of ESCO projects in the region (feasibility studies, energy auditing, tendering support, etc.)

PROMOTING RENEWABLE ENERGIES AND ENERGY EFFICIENCY

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	06/2022 - 10/2023	137,792	Energy efficiency / renewable energy	Serbia	

PROJECT DESCRIPTION

The project "Promotion of renewable energy and energy efficiency in Serbia" aims at improving the legal, institutional and technical framework for the promotion of sustainable energy technologies in the Republic of Serbia. The project's main focus is enhancing the use of solar energy in decentralized energy production, by supporting the prosumer approach. The project will examine the possibilities for installation of rooftop solar PV systems and self-consumption in households, homeowner associations, and public and private buildings.

The project is scheduled in three areas of intervention:



1. Policy support and legislative and institutional frameworks as well as establishing useful and comprehensive data management system for renewable energy

2. Development of standardized technical and financial models for the use of solar PV systems in different prosumer applications (households, homeowner associations, SMEs, public buildings etc.)
3. Competence and capacity building of relevant stakeholders through awareness raising, development of training and programmes for increased use of solar energy for electricity production.

The main partner of the project is the Ministry of Mining and Energy (MoME). The project will also cooperate with private sector stakeholders, as well as with regional and local level authorities, through regional development agencies and interested municipalities.



TECHNICAL AND CONSULTANCY SUPPORT OF THE UKRAINIAN PARTNER MUNICIPALITIES IN ESTABLISHING MUNICIPAL ENERGY PLANNING



CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	06/2021 - 11/2023	2,363,855	Energy efficiency	Ukraine	 

PROJECT DESCRIPTION

The project supports the Ministry of Development of Communities and Territories of Ukraine (Min region) and the State Agency on Energy Efficiency and Energy Saving of Ukraine (SAEE) in the spread of municipal energy management in Ukraine in 11 partner municipalities. The assistance in the establishment of strategic energy planning in selected municipalities is based on the Swiss experience in the area of municipal energy plans (MEP). MEP is an instrument to secure affordable energy supply while minimizing environmental impacts in terms of air quality and CO₂ emissions.

To this end, the project will support 11 selected municipalities to analyse, forecast and map demand for energy and to prioritize the most efficient energy sources on their territory. Precondition will namely be a functioning basic MEM and the commitment to plan the municipality's energy supply based on district heating. Services offered include a range of trainings, permanent consultancy support, support missions to partner municipalities, and recommendations for further development.

PUBLIC SECTOR EE FINANCING FRAMEWORK: CITY OF DNIPO (CALL-OFF 4)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	04/2020 - 12/2020	175,000	Energy efficiency / pipeline preparation	Ukraine	 

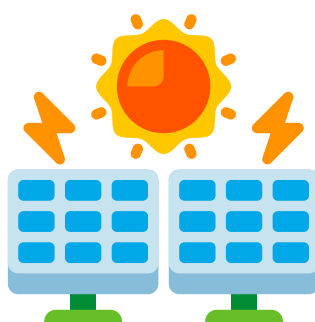
PROJECT DESCRIPTION

The overall objective of the call-off was to support the EBRD and the City of Dnipro in preparation of the project as the EBRD required the advice of independent experts to confirm that the proposed investment had strong justification in terms of scope and energy saving potential.

GFA supported the Client in identifying appropriate investment opportunities and elaborating the proposal for financing under the Framework; and ensured that the Client proposing projects

were, in all respects, compliant with national and applicable EU, environmental, health, safety and labour standards. Specific tasks included:



- Preparation of a feasibility study based on energy audits and relevant technical data provided by the City of Dnipro and own data collection
- Preparation of a feasibility study
- Project preparation including tender dossiers



An aerial photograph of a lush tropical forest with a winding river. Overlaid on the image is a map of Latin America and the Caribbean. The countries of Mexico, Central America, the Caribbean islands, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil, Paraguay, Uruguay, Argentina, and Chile are highlighted in green. The surrounding countries, including the United States, Canada, and parts of Africa and Europe, are shown in light gray. The text "LATIN AMERICA AND CARIBBEAN" is written in large, bold, green capital letters with a white outline, positioned in the lower-left quadrant of the image.

LATIN AMERICA AND CARIBBEAN

**ENERGY EFFICIENCY IN ARGENTINA**

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EC	04/2018 - 08/2021	4,309,100	Energy efficiency / policies and strategies / involvement of private sector	Argentina	 

PROJECT DESCRIPTION

The purpose of the project was



1. to support the introduction of EE measures in key sectors of the Argentinian economy, and
2. to assist with the development of the related legal and regulatory framework.

The European Commission had been supporting the reform policies of the Argentinean Government since the installation of the new administration in late 2015. In this context, energy re-form was an important element, as it affects both macroeconomic and fiscal issues, and was at the centre of Argentina's targets for sustainable development and climate change mitigation.

The project's overall objective was clearly defined as "Support to shape a more sustainable, environment-friendly and efficient energy sector". In order to achieve this objective the project:

- Showcased state-of-the-art technological EE solutions and best practices
- Developed a National Energy Efficiency Plan and the required policy and regulatory framework
- Provided technical Assistance for standards and labelling, energy management in industry and public sector, and participation in international EE activities

TECHNICAL ASSISTANCE FOR CAPACITY BUILDING IN THE ENERGY SECTOR OF BELIZE

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
EC	11/2020 - 11/2024	3,017,500	Renewable energy / policies and strategies	Belize	 

PROJECT DESCRIPTION

The objectives of this assignment are to increase and improve access to modern, affordable and sustainable energy services for the whole population in the country, triggering widespread benefits for the poor in rural areas. The intended overall outcome is that "the strategic energy planning process and institutional implementation capacities in Belize are strengthened." The purposes of this contract are as follows:

Purpose 1: The Technical Assistance (TA) will support the Energy Unit of the Ministry of Public Utilities, Energy & Logistics (formerly the Ministry of Public Service, Energy and Public Utilities) to increase its technical and institutional capacities.

Purpose 2: The TA will advise and assist the Energy Unit and the electricity supplier Belize Electricity Limited (BEL) in the design, implementation and monitoring of operation of mini-grid and off-grid systems for rural electrification.

Purpose 3: The TA will identify potential sources of renewable energy in Belize and elaborate Terms of Reference for two feasibility studies (for electricity generation connected to the national grid).

CLIMATE POLICY PROGRAMME (POMUC) IN BRAZIL

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	10/2017 - 09/2019	815,390	Regulations	Brazil	 

PROJECT DESCRIPTION

The Climate Policy Program (Programa Política sobre Mudança do Clima – PoMuC), was an international cooperation programme between the Brazilian and the German Government in the framework of the International Climate Initiative of the German Federal Ministry of Environment, Nature Conservation, Nuclear Safety and Building (BMUB). It aimed at contributing to the successful implementation of selected topics of Brazil's Climate Policy. The Ministry of Environment of Brazil was supported in developing and implementing a Transparency System including

Monitoring, Reporting and Verification of actions and supported to track and demonstrate progress of implementation of the national climate policies, including the Brazilian Nationally Determined Contribution (NDC). Furthermore, it supported the implementation of the national Adaptation Plan, the improvement of the performance of the national Climate Fund and other climate financing issues. Finally, the programme worked in cooperation with the Ministry of Finance on the assessment of regulatory impact of a greenhouse gas (GHG) reporting program.

TECHNICAL SUPPORT FOR ENERGY EFFICIENCY INVESTMENTS IN SMALL AND MEDIUM-SIZED ENTERPRISES

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	09/2022 - 10/2024	1,245,450	Industry / energy efficiency	Brazil	 

PROJECT DESCRIPTION

This assignment contributes to Transformative Investments for Industrial Energy Efficiency (TI4E) overall objective to provide technical assistance and promote access to finance for EE projects of industrial SMEs from the State of São Paulo and to scale-up this access to other sectors and regions from Brazil. The specific goals of the assignment are:



1. Supporting specialists on the preparation of EE investments in industrial SMEs, especially with regards to thermal technology interventions with high GHG mitigation impacts, economic-financial assessments and contractual modalities

2. Perform independent validations of retrofit installations in industrial SMEs as well as the M&V reports on energy savings in line with relevant standard and norms

3. Enlarge the ETL significantly with technical specifications of additional EE technologies and enable its integration within BNDES's accreditation system FINAME for concessional credit lines

4. Further develop TI4E's existing de-risking instruments into a modular EE financing toolkit and advise selected Brazilian financial institutions on how to deploy it

FINANCING ENERGY FOR LOW-CARBON INVESTMENT - CITIES ADVISORY FACILITY (FELICITY)

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	08/2018 - 12/2021	1,310,000	Energy efficiency / pipeline preparation	multi-country	 



PROJECT DESCRIPTION

The aim of FELICITY was to make low-carbon infrastructure projects in cities bankable for EIB financing by providing technical assistance and advisory services to cities, especially project promoters and municipalities. The first phase of FELICITY focused on Brazil, (China) and Mexico, while the follow-up phase focused on Ecuador and Indonesia. As project preparation facility, FELICITY supported project promoters and municipalities to meet international climate finance criteria in cities of the above named countries:

The objectives were:

1. To enable project promoters to prepare their projects in line with EIB's requirements for lending, including:
2. specify the project promoters' needs for capacity development; and
3. define lessons learnt from these projects.

ENERGY SYSTEM TRANSFORMATION – COMPONENT: KNOWLEDGE NETWORKS FOR EE & RE WITH MUNICIPALITIES AND CITIES

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	12/2019 - 03/2022	1,178,251	Energy efficiency	Mexico	 



PROJECT DESCRIPTION

The "Sustainable Energy in Mexico" programme aimed at increasing the sustainability of the Mexican energy system. By expanding renewable energies (RE) and improving energy efficiency (EE), the project supported Mexico in implementing the national Agenda 2030, which aimed at achieving a 30% share of "clean energies" and an annual reduction in energy intensity of 1.9% by 2030.

The project implemented by GFA was part of the project "Programa de Apoyo a la Implementación de la Transición Energética en México" (TrEm) implemented by GIZ and was specifically responsible for "Output 3: The model of municipal energy management systems

(KEMS) has been introduced in Mexico". Here, the Comisión Nacional para el Uso Eficiente de la Energía (CONUEE) was advised on setting up and moderating municipal learning networks. In addition, the members of the networks were empowered through training measures for the implementation of concrete measures and energy system transformation action plans were promoted in selected municipalities. The project goal was achieved when five municipalities in each of selected Mexican federal states worked as an established learning network and exchange information on instruments and experiences with EnMS on a frequent level.

TAPSEC – TECHNICAL ASSISTANCE PROGRAMME FOR SUSTAINABLE ENERGY IN THE CARIBBEAN

CLIENT	PERIOD	EUR	MAIN TECHNICAL FIELD	COUNTRY	SDG
GIZ	12/2019 - 06/2022	536,560	Pipeline preparation	multi-country	 

PROJECT DESCRIPTION

The Technical Assistance Programme for Sustainable Energy in the Caribbean (TAPSEC) was directly related to Focal Area two of the Caribbean Regional Indicative Programme (CRIP), which focused on Climate Change, Disaster Management, Environment, and Sustainable Energy, and addressed the sustainable development of the countries.

The overall objective of TAPSEC was to ensure the access of all CARIFORUM citizens to modern, clean and reliable energy supplies with a significant increased share of local and regional energy sources.

GFA was responsible for the finance component of TAPSEC. The outcome indicator of the project was that financial institutions in the CARIFORUM states had committed to funding additional RE/EE or climate-resilience projects with a total volume of US \$ 100 million, of which US \$ 20 million was invested in projects to promote the climate resilience of energy systems. For this, GFA identified innovative mechanism for financing RE and EE projects and facilitates their accessibility for project developers from the CARIFORUM region.

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