



*Work Stream 3:  
Energy Efficiency and  
Diversification of the Energy Mix*

**Discussion Paper:**  
CAREC Green Energy Alliance and  
Energy Efficiency Awareness Campaign

*April 2021*

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## LIST OF ABBREVIATIONS

|       |  |
|-------|--|
| ADB   | Asian Development Bank                           |
| CAREC | Central Asia Regional Economic Cooperation       |
| EBRD  | European Bank for Reconstruction and Development |
| EE    | Energy Efficiency                                |
| GE    | Green Energy                                     |
| IFI   | International Financial Institution              |
| TA    | Technical Assistance                             |

## 1. INTRODUCTION

As a region with abundant energy resources, the CAREC region recognizes that action and close regional cooperation are key to successfully achieve the transition towards a more sustainable and clean energy future. Such cooperation will also help seize the vast and cost-competitive potential of the renewable energy sources of the region.<sup>1</sup>

The CAREC Energy Strategy 2030's long-term vision of achieving a reliable, sustainable, resilient, and reformed regional energy market is being supported through a number of strategic outputs that reflect the strategic goals of the Strategy. The deliverables assigned to Work Stream 3 form part of Pillar 3 of the CAREC Energy Strategy 2030, namely Enhancing Sustainability by Greening the Regional Energy System, and has two main objectives<sup>2</sup>:

- (i) To develop a comprehensive Concept for a new regional market place for green energy projects – the CAREC Green Energy Alliance. Its main purpose is to create a safe and attractive environment for the investors, by creating a pool of attractive clean energy projects. The Concept will contain all the necessary information for the smooth implementation of the Financing Vehicle.
- (ii) To promote awareness for energy efficiency among the general public. This part of the assignment aims to empower and encourage energy consumers to take action in order to use energy more consciously and become better informed on their options. The campaign aims at raising awareness of consumers on the possibility to cut energy expenditure through more efficient energy use. The media campaign consists of three parts that enable good target consumer coverage, such as 1) content for an energy efficiency radio commercial, 2) content for TV commercial to be broadcasted in the CAREC member countries and 3) user-friendly and easy-to-understand consumer leaflets with instructions on energy saving.

This work is considered timely given the low share of renewable energy penetration and ageing, inefficient energy infrastructure operating in the region. The work is also directly aligned with the commitments made by Energy Ministers of the CAREC region in Tashkent in 2019 of doubling the regional share of renewable solar and wind energy by 2021 and doubling overall energy efficiency levels in the region by 2030.

<sup>1</sup> CAREC Institute. Energy Security Policy Brief. Dec 2019.

<sup>2</sup> ADB. 2019 *CAREC Energy Strategy 2030*. Manila.

**2. THE CAREC GREEN ENERGY ALLIANCE - PRELIMINARY CONSIDERATIONS**

**2.1. Proposed Scope for a new regional Financing Vehicle**

The first objective is to develop a comprehensive Concept for a new regional market place to attract financing for green energy projects – the CAREC Green Energy Alliance. Its main purpose is to create a safe and attractive environment for the investors, by creating a pool of attractive clean energy projects.

As part of this objective, it is suggested to conceptualize the creation of a green energy financing vehicle, which would address the funding gaps for energy efficiency and renewable energy initiatives – both private and public. The concept would include, among other things, the suggestions on the sector focus (e.g. energy efficiency, and/or large-scale renewables, and/or alternative energy, etc); on the product offer (e.g. equity, debt, credit enhancement instruments), and on the target investors groups (e.g. banks, funds, donors, etc).

The following content and structure is envisaged to successfully deliver a concept for a new regional financing vehicle to boost green energy projects in the region:

**Table 1. Preliminary Concept structure**

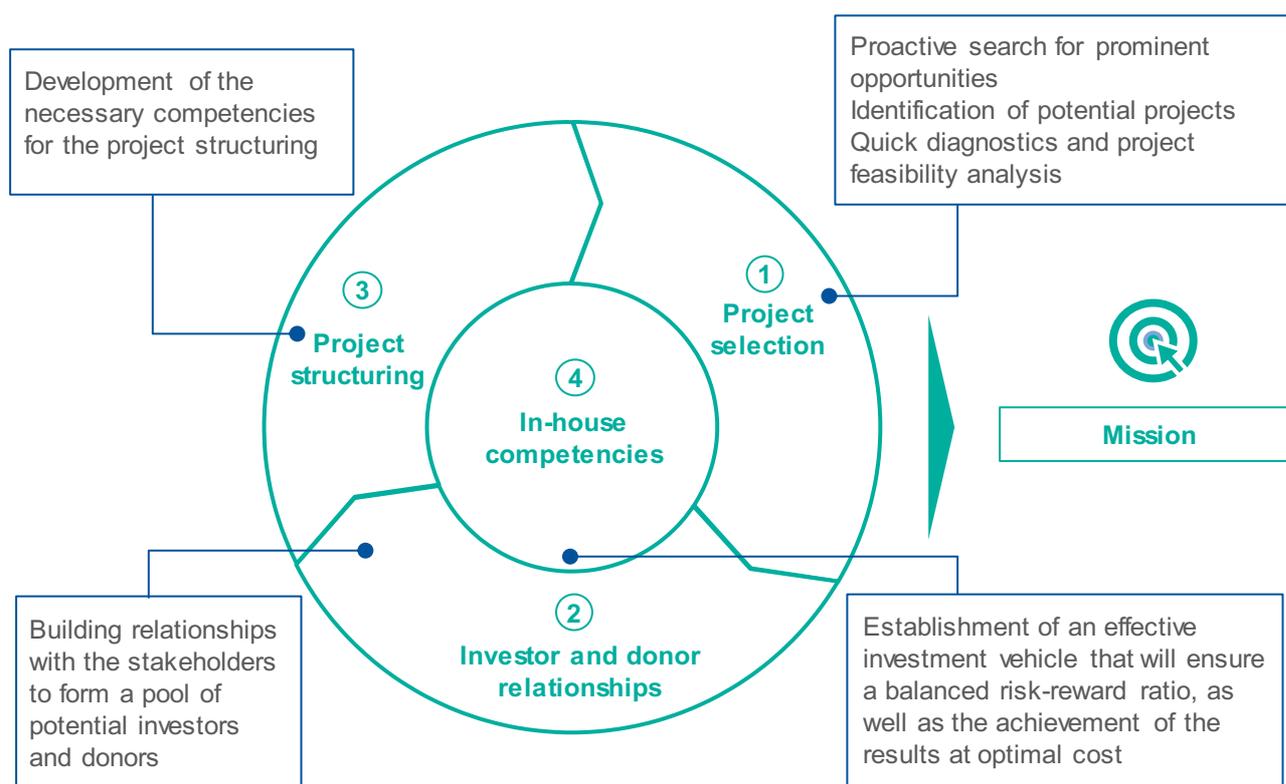
| The Concept  |
|--|
| <p><b>A. Background</b></p> <ul style="list-style-type: none"> <li>• CAREC: history, background, countries, energy strategy, etc.                             <ul style="list-style-type: none"> <li>○ Rationale for cooperative action in the region (CAREC countries)</li> </ul> </li> </ul>   |
| <p><b>B. Rationale for Green Energy and Energy Efficiency Financing Vehicle</b></p> <ul style="list-style-type: none"> <li>• Green Energy /energy efficiency development context                             <ul style="list-style-type: none"> <li>○ Existing Green Energy Problems in the region (possibly, a country-by country analysis and ranking)</li> <li>○ Problem Tree (for the entire region, separate for green energy and energy efficiency)</li> </ul> </li> <li>• Barriers to financing green energy and energy efficiency                             <ul style="list-style-type: none"> <li>○ Existing Finance Market for Green Energy/Market Potential</li> </ul> </li> </ul>            |
| <p><b>C. Financing Vehicle Concept Description</b></p> <ul style="list-style-type: none"> <li>• A description of various setups and types of financing vehicles and a discussion of main drivers in their choice</li> <li>• An analysis of best practice examples (up to 3)</li> <li>• Financing Vehicle organizational and legal structure and corporate governance</li> <li>• Suggested Financing Vehicle Operating model, size, sector priorities, etc.</li> <li>• Suggestions for Investment declaration, strategy, etc.</li> <li>• Suggestions for main Projects Eligibility and Criteria</li> <li>• Financing Mechanisms for Green Energy</li> <li>• List of Potential Donors and Funding</li> </ul> |
| <p><b>D. Issues to consider when structuring the facility</b></p> <ul style="list-style-type: none"> <li>• Economic and Financial Viability</li> <li>• Sustainability</li> <li>• Governance</li> <li>• Poverty, Social, and Gender</li> <li>• Safeguards</li> </ul>  |

|   |
|---|
| <ul style="list-style-type: none"> <li>• Summary of Risk Assessment and Risk Management Plan</li> </ul>   |
| <b>E. Awareness raising</b> <ul style="list-style-type: none"> <li>• Awareness raising mechanisms</li> <li>• Target green energy consumers</li> </ul>   |
| <b>F. Key decisions and future actions</b> <ul style="list-style-type: none"> <li>• List of key decisions to be made on the CAREC level</li> <li>• List of key documents to prepare to assist IFIs decision making</li> <li>• List of studies/consultants required to prepare the facility, e.g. business plan, financial model, market study, etc.</li> <li>• Action plan and project timeline/schedule</li> </ul> |
| Annexes   |
| Case studies: short (two to four pages), real-world case studies to demonstrate what works versus what does not of both successful and failed projects.   |

## 2.2. High-level Financing Vehicle Operating Model

The proposed high-level Financing Vehicle Operating Model is presented in the Figure below:

**Figure 1: Preliminary operating model**



## 2.3. Key considerations

### 1) Key considerations for the project selection

- Selection of the projects should be carried out according to the funnel principle, which shall be constantly replenished with new projects. This process should be re-enacted on a constant basis.
- The project selection process has 3 main steps: the initial screening resulting in the project long-list, feasibility analysis resulting in the project short-list, approvals and structuring resulting in the pipeline.
- It is critical to establish transparent eligibility and selection criteria, including but not limited to focus (country, region, sub-sector), financial indicators (ticket size, payment mechanism, reimbursement of the investments, bankability requirements), investment horizon, other considerations such as compliance with certain policies (i.e. EBRD concession policy) and principles (i.e. Equator principles).
- Quantitative KPIs (in line with SMART principle) should be in place.

### 2) Key considerations for the investor and donor relationships

- It is crucial to identify target investors and donors (such as IFIs, international banks, local banks, foreign and local equity providers, investment funds institutional investors etc.) and establish working relationships with them to develop strong project pipeline.
- Plan to liaise with the investors and donors should be drafted and approved.
- Quantitative KPIs (in line with SMART principle) should be in place.

### 3) Key considerations for the project structuring

- Internal advisory vs. external advisors (i.e. IFC advisory model vs EBRD SI3P model).
- Project structuring scope (what should be in place before the Financing Vehicle involvement).
- Additional TA work scope (when to involve TA funding).
- Reimbursement of provided funding (model).
- Required approval procedures, coordination with the banking teams (if any), conflict of interest management.
- Quantitative KPIs (in line with SMART principle) should be in place.

### 4) Key considerations for the in-house competencies

- Development stages of the Financing Vehicle should be approved (for instance via staged funding).
- Transparent legal and organizational structure is essential for an effective decision-making process. Organizational structure shall be designed in line with the following principles:

- The transparency of all investment decisions is ensured by the presence of independent members on the chairing committee.
- Successful implementation of strategic tasks is carried out through clear and timely communication of goals and KPIs to all relevant stakeholders.
- The following specific measures regarding the governance structure of the Financing Vehicle will be considered at the Concept development stage:
  - Periodic review, reporting and oversight.
  - Compliance with law, internal and external regulations.
  - Conflict of interest management.
  - Appropriate segregation of duties to avoid the conflict of interests.
  - The principle of 'conscientious consideration' as well as fair and reasonable application of governing principles in dealing with conflicts of interest or any internal situations.
- The pilot project (-s) may be used as a testing mechanism of prepared operational model.
- Quantitative KPIs (in line with SMART principle) should be in place.

#### 2.4. Outstanding Decisions and Working Arrangements

In order to mitigate the risks and challenges listed in the previous section, the Lead consultant recommends measures as outlined below:

- Investment scope

The investment scope of the Financing Vehicle shall be clearly stipulated in the Concept and subsequent Strategy / Business plan. Clarification on whether the assignment needs to concentrate on **renewable energy** or **energy efficiency projects, or both** is needed to avoid confusion.

- Data availability

In order to manage the risk of data availability, strong commitment and cooperation from the CAREC member countries is expected in order to make data available as much as possible in addition to the consultant's own research. At the points where no data is available, relevant assumptions will be made. Also, data from foreign countries with similar economies and scientific research findings will be utilized. Another risk that might be expected is access to the relevant data, which might be confidential. Confidentiality problem could be resolved with non-disclosure agreements with the beneficiary to the extent possible.

- Commitment of the Stakeholders

Timely reactions to invitations from the Lead consultant will be crucial for the overall success and timely delivery of the Assignment.

- Limited project pipeline

Project eligibility and selection criteria shall be carefully drafted, reviewed and approved. In some cases project pooling may alleviate the small investment size issue.

### 3. ENERGY EFFICIENCY AWARENESS CAMPAIGN MATERIALS

Global demand for energy is expected to increase by 50% by 2030<sup>3</sup>. Expanding population and rising demand for resources, including energy amplify the need for solutions that both improve energy efficiency and provide a safe and sustainable alternative to scarce resources.

Promotion of energy efficiency measures could be a pivotal point in meeting growing energy demand and tackling economic challenges in CAREC countries. Energy efficiency is generally considered as the most cost-effective source of energy, as its priority is to reduce the need for energy, while providing the same, or better level of service, instead of expanding energy supply.

It is estimated that a 1–4% investment in energy efficiency, as a share of overall energy sector investment, can result in up to 25% of the projected increase in primary energy consumption in developing Asian countries by 2030. This cost-effective investment can improve energy security by reducing the demand for imported energy, as it is forecasted, that 20 years from now the majority of the countries in the region will produce only half or less of the energy they require<sup>4</sup>.

There is thus a strong rationale to tap the region's energy efficiency potential which is also a priority in the nationally determined contributions of most countries following the adoption of the Paris Agreement. Over the next decade, the region can therefore drive energy efficiency up to international standards.

To start unlocking the potential of energy efficiency in the region, CAREC will focus on raising consumer awareness for a more conscious use of energy. In this regard, a draft TV and radio commercial was prepared that can be broadcasted in the region and on social media. To complement the media campaign, a draft consumer leaflet was also designed to provide additional information material on energy saving in daily life.

#### 3.1. TV and Radio Commercial

Climate change and energy scarcity was chosen as an underlying theme for the TV and Radio script. The main idea behind the script is to explain that the actions of every individual count in contributing to a more livable planet for the current and future generations. The commercials explain that the planet is increasingly unable to support current models and levels of energy consumption and production. Therefore consuming less energy is the responsibility of each energy consumer to prevent significant and irreversible environmental harm.

The TV commercial can be watched under this link:

- English version: <https://youtu.be/1X1BfE0LrGY>
- Russian version: <https://youtu.be/NbabRxDSX2s>

<sup>3</sup> PWC Megatrends: Climate Change and Resource Scarcity, 2021

<sup>4</sup> Same Energy, More Power: Accelerating Energy Efficiency in Asia. Asian Development Bank, 2013

## THE ENERGY SAVED TODAY – TV and Radio Commercial Script

What is the cheapest energy source of tomorrow?

It's the energy saved today.

Careless energy consumption leaves irreversible scars on our planet

Saving energy – at home, at work, while moving around –will save our planet's ecosystems.

Think of future generations every time you turn the lights off.

Energy efficiency starts with you.

3.2. Consumer Leaflet

Pages 1 and 4 of the leaflet:

## EASY ENERGY EFFICIENCY TIPS

Save money and make your home more energy efficient!



By following these tips you will see some great savings over the long run, and help reduce energy consumption!

Did you know that?

- Lighting takes up to 5% of energy
- Domestic appliances use another 10%
  - 15% goes for cooking
- 70% are consumed by heating needs

Improving energy efficiency offers a large potential to reduce both CO<sub>2</sub> emissions and energy bills. There are lots of small and yet effective things you can do around your home to improve energy efficiency.

This leaflet will provide you with easy tips that will help you save money, and make energy more affordable and your home more comfortable.

Pages 2 and 3 of the leaflet depict the easy energy efficiency tips:



Turn off the lights when they are not in use and change your light bulbs to LEDs



Wash your clothes with the lowest possible temperature or on the economy setting and air-dry them outside



Choose the most energy efficient A+ energy rating when buying new home appliances



Ensure all electrical appliances are turned off when not in use and avoid using standby buttons



Draught-proof your home. Sealing cracks, gaps and leaks and adding insulation can help you save on heating and cooling costs



When the weather is hot, close the blinds on the sunny side of your home to help keep the temperature inside the house cooler



Open the shades during cooler weather to let the sunshine warm your home



Always use the right size pan for your cooking ring and put a lid on it. This will help save energy as the food will cook quicker

#### 4. QUESTIONS TO THE WORKING GROUP

1. Do you accept the proposed Energy Efficiency TV and radio commercial?
2. Will the proposed draft leaflet on Energy Efficiency sufficiently inform your population about easy ways to save energy? Do you wish any amendments?
3. Do you agree with the proposed structure of the Green Energy Alliance concept note?
4. To establish the Green Energy Alliance in Central Asia, do you agree that the facility should cover both renewable energy and energy efficiency projects?