

## ROADMAP

to develop recommendations and solve problems related to developing renewable energy production and consumption, increasing energy efficiency in the green tourism sector at the community level, and reducing emissions.



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## LIST OF ABBREVIATIONS AND DEFINITIONS

| Abbreviation /<br>Definition  | INTERPRETATION   |
|---|--|
| <b>RIA</b>  | Regulatory impact analysis.  |
| <b>Supplier Attestation</b>   | Activities to assess compliance with standards and requirements of network organizations, the procedures of which are determined by the Cabinet of Ministers of the Kyrgyz Republic.   |
| <b>Attested Supplier of Thermal, Electrical Energy to the Grid</b>                  | A business entity that obtains energy from renewable energy sources and meets technical parameters, standards, and economically justified supply capacity, as well as having passed a compliance assessment and been admitted.                                     |
| <b>RES</b>  | Natural resources that are renewable and can be converted into other forms of clean energy (Renewable energy sources, green energy).   |
| <b>Hybrid Energy System for the Facility's Energy Supply through the Use of RES</b> | Clean energy generation in decentralised zones based on renewable energy conversion technologies that create a unified energy supply system for a real estate object by combining multiple energy sources (at least two different generation technologies).        |
| <b>Decentralization</b>   | An economic model for the development of small-scale energy, a form of implementation of policies aimed at increasing energy production and consumption to meet their own needs through microgeneration from renewable energy sources.                             |
| <b>Green Marking (Green Sticker)</b>  | The Green marking of tourism facilities based on the procedure for assessing standard compliance is a badge of distinction, with entry into the Register.  |
| <b>Green Technologies</b>   | Safe technologies that reduce the negative impact on nature, people, and related processes, ensuring the operation of lodging facilities, engineering, and communal infrastructure based on the rational use of natural resources without harming the environment. |
| <b>Tourism Infrastructure</b>   | The totality of accommodation facilities, engineering, and communal infrastructure for tourism activities, as well as all modes of transportation for people and tourist goods, sports, catering facilities, entertainment, leisure                                |

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|   | organisations, and means of acquaintance for educational, business professional, recreational, and sporting purposes.   |
| <b>KR</b>   | Kyrgyz Republic.  |
| <b>Microgeneration</b>                                | Production activities for converting one type of energy from renewable sources directly on the property or at the nearest water body or geothermal source into thermal or electrical energy.  |
| <b>Microgeneration</b>                                | The electricity generation using very low-power facilities (Small or microgeneration, according to the WADE classification, is the production of electricity at or near the point of consumption, regardless of size, technology, or fuel—both off-grid and in parallel with the grid.) |
| <b>Microgeneration Using Renewable Energy Sources</b> | Conversion of various renewable energy resources into thermal and electrical energy, which is produced on low-power equipment (up to 15 kW) from each energy source for local consumption and the sale of excess electrical energy to the grid.   |
| <b>MSME</b>   | Micro, small, medium-sized enterprises.   |
| <b>Non-core Business Entities</b>                     | Producers of thermal and electrical energy for their own consumption and supply of surplus through autonomous local networks.   |
| <b>VAT</b>  | Value added tax.  |
| <b>R&amp;D</b>  | Research and technological development.   |
| <b>Accommodation Facilities</b>                       | A real property that includes accommodation facilities (room stock) and separate living quarters (rooms) intended for living for tourists (excursionists).  |
| <b>Conformity Assessment</b>                          | Professional activity of organisations accredited to perform work on assessing compliance with technical standards and safety parameters while providing paid services.   |
| <b>Suppliers</b>                                      | MSME entities engaged in various types of business activities involved in value chains, the production and consumption of clean energy, and energy efficiency growth.   |
| <b>Consumers</b>                                      | MSME entities providing tourist services at the level of local communities using renewable energy and E/E technologies.   |

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| <b>Market Failures</b>                                     | Inability of market institutions and mechanisms to ensure adequate production of goods, works, and services   |
| <b>SNiP</b>  | Building codes and regulations.   |
| <b>Self-declared Environmental Statement (Declaration)</b> | An environmental statement made by a manufacturer, importer, distributor, or other person who may benefit from such a statement that is not certified by an independent third party.  |
| <b>Self-regulation</b>                                     | Initiative activity that is carried out by organised business or professional entities, the content of which is the development and establishment of standards and rules of this activity, as well as monitoring compliance with accepted standards and requirements  |
| <b>Self-regulation in Tourism</b>                          | Activities for setting standards, providing audit services, monitoring, and maintaining a register of organisation members, as well as self-regulating relationships arising from the voluntary acceptance of additional obligations by business entities to comply with the requirements, accepted norms, and rules in the fields of quality, safety, environmental friendliness of services provided, and operation of tourism infrastructure facilities. |
| <b>Self-regulating Organizations</b>                       | Non-profit organisations based on voluntary membership that unite entrepreneurs based on the principle of uniformity of types of entrepreneurial activity were formed for the purpose of self-regulation of activities based on environmental Green standards, rules, and mandatory legislative requirements.   |
| <b>Certificate of Conformity</b>                           | A document issued in accordance with certification rules that reliably demonstrates that renewable energy and fuel sources have been correctly identified and comply with a standard or other regulatory document.  |
| <b>RE Technologies</b>                                     | Science and technology achievements, embodied in the form of various equipment, transmission systems, devices that generate thermal and electrical energy from renewable energy sources, as well as converting organic raw materials into biogas.   |
| <b>E/E Technologies</b>                                    | Thermal insulation raw materials, materials, structures, automatic control systems for the efficient use of energy resources, and energy-saving equipment types (marked).   |

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| <b>CBT</b>                                 | The form of local organisation of tourist service provision, economic and household activity at the level of local communities.   |
| <b>TR</b>                                  | Technical regulations.  |
| <b>TS</b>                                  | Technical standard.   |
| <b>ESC</b>                                 | Entrepreneur Support Center (Entrepreneur Service Center).  |
| <b>Ecological Certificate"</b>             | <b>"Green</b><br>A document that confirms compliance with accepted standards, regulatory requirements, and obligations to provide appropriate quality services.   |
| <b>Energy Audit</b>                        | An inspection of energy facilities to identify energy efficiency, identify measures to improve it, and identify the feasibility of their implementation, including the collection of documentary information, instrumental examination, information analysis, and the development of energy conservation recommendations (passport of the facility, assessment of compliance with standards, etc.).   |
| <b>Energy Audit</b>                        | Professional activity of individuals or organisations that provide services for assessing compliance with standards of networks of unified energy systems for providing consumers, calculating the economic feasibility and comprehensive technical justification of supply, evaluating accounting systems, and assessing the performance of microgeneration facilities.  |
| <b>Energy Audit of Real Estate Objects</b> | Professional activity of individuals or organisations that provide services for assessing the state of a real estate object's energy system, energy supply systems, rationality of energy consumption, analysis of energy efficiency reserves, and development of a set of measures with technical justification to reduce energy consumption and increase energy efficiency, including the use of modern technologies and the introduction of renewable energy technologies. |
| <b>E/E (Energy Efficiency)</b>             | Rational use of energy resources to obtain the required types of energy from renewable energy sources with little or no environmental impact.   |

## INTRODUCTION

The European Union's SWITCH Asia programme's project "Promoting Energy Efficiency and Renewable Energy Production in the Community Based Tourism Sector in Central Asia" aims to reduce the carbon footprint in the tourism sectors of Kyrgyzstan, Uzbekistan, and Tajikistan, as well as to create a favourable environment for energy efficiency (E/E) growth and to strengthen sustainable energy consumption and production based on renewable energy sources (RES) by MSME entities in the tourism sector at the community level.

Countries have obligations to reduce emissions and their negative environmental impact. The objectives of the development of sustainable (green) tourism and the growth of energy efficiency, including the development of RES-based energy production and consumption, are defined in programme and strategic documents. According to the "business as usual" scenario, Kyrgyzstan pledges to reduce GHG emissions by 16.63% by 2025 and 15.97% by 2030, and with international assistance, GHG emissions will be reduced by 36.61% by 2025 and 43.62% by 2030.<sup>1</sup>

An Interministerial Working Group, assisted by experts from the BizExpert Analytical Center, conducted a comprehensive assessment of the availability of the main production factors (necessary economic resources). An evaluation of the impact of policies (programme documents) on the development of clean energy production and consumption, energy efficiency growth, an evaluation of the regulatory framework's impact, and an examination of market failures. Combining special economic and political economic analysis methods allowed for the consideration of almost all problems of individual types of entrepreneurial activity belonging to various industries and sectors of the economy, the identification of sectoral (environmental) problems, the development of solutions to existing problems, the proposal of sectoral policies and measures of state support for the development of several types of entrepreneurial activity that have initiative and on which depends the widespread adoption of RE and EE technologies, as well as the expansion of clean energy production and consumption (hereinafter referred to as "Suppliers and Consumers" of RE and EE technologies, the latter are both producers of clean energy).

The conclusions reached based on the primary analysis of the use of renewable energy and the use of E/E technologies in the tourism sector were reflected in the Report "Analysis of the State of the Business Environment in Kyrgyzstan's Energy

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<sup>1</sup> Updated Nationally Determined Contribution of the Kyrgyz Republic. <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Kyrgyzstan%20First/%D0%9E%D0%9D%D0%A3%D0%92%20%D0%A0%D0%A3%D0%A1%20%D0%BE%D1%82%2008102021.pdf>.

Sector"<sup>2</sup> and confirmed during the Interministerial Working Group's activities. To date, the objective reality is that the development of local clean energy production based on renewable energy from non-core business entities (non energy sector) is not a high priority for authorised government agencies in the energy sector. The goals of Microgeneration development for non-core entities outside the energy sector were formulated based on the results of the Interministerial Working Group, and it was proposed to improve the models of small-scale energy development taking into account the vector of decentralisation of clean energy production and consumption.

The main gap in policies to promote the development of mass use and the introduction of renewable energy and E/E technologies is the failure to recognise the potential for clean energy production by business entities from other (non-energy sector) sectors of the country's economy and households. The lack of state support measures addressed to the business entities, on which the introduction of clean energy production and consumption and energy efficiency growth depends, leads to the fact that only energy sector entities and business entities specialising in energy production and sales are the beneficiaries of state support. Regulatory policies, particularly legislation, have regulatory gaps and barriers for both profile and non-profile entities with entrepreneurial and investment initiatives to introduce renewable energy and E/E technologies in order to gain benefits. At the same time, despite their keen interest in the development of their industry, representatives of the tourism sector based on CBT:

- They have no influence on state policy regarding small-scale energy development;
- They were not involved in the promotion of their initiatives for the independent production of clean energy from renewable energy sources;
- They are not recognized as an interested party and by inertia belong to the category of energy consumer.

Earlier decisions and policy changes in the Kyrgyz Republic aimed at increasing the use of renewable energy, developing a "green economy," and improving energy efficiency were not aimed at those target groups of business entities that were interested but did not belong to the energy sector.

One of the expert conclusions in the Report "Analysis of the State of the Business Environment in Kyrgyzstan's Energy Sector" was the lack of implementation of legislation on the periodic assessment of the actual impact of decisions taken (NLAs), as well as the lack of a mechanism for assessing the impact of state programmes on stakeholders (consumers - tourism entities) and business

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<sup>2</sup> Report "Analysis of the State of the Business Environment in Kyrgyzstan's Energy Sector", Bishkek, 2020. <http://bizexpert.kg/analiz-sostoyaniya-delovoj-sredy-energosektora-v-kr/>

development objectives in other sectors and areas. (On the expansion of the business of "Providers of RES, EE technologies").

The parties acknowledge the existence of an intersectoral gap in the development of practical solutions resulting from strategic documents, the absence of specific implementation measures to influence the development of microgeneration, the failure to fulfil the tasks of programme documents, the actual lack of effective measures to support business entities on which the introduction of renewable energy and E/E technologies is dependent, as well as the presence of gaps and barriers in regulation. As a result, the Interministerial Working Group proposes a number of solutions and practical measures that influence state policy in the field of supporting mass local production and consumption of clean energy based on RES and energy efficiency growth in the sector of "Green" sustainable tourism based on CBT through effective management of natural resources (land, water), rational use of factors of production, reasonable regulation, and the elimination of barriers, and regulatory failures as well as market failures.

The development objectives of this Roadmap correspond to the objectives of the Green Economy Development Program, the Tourism Development Program, and the equivalent priorities of the Kyrgyz Republic's National Development Strategy for 2018-2040 and the Kyrgyz Republic's National Program and Development Plan until 2026.

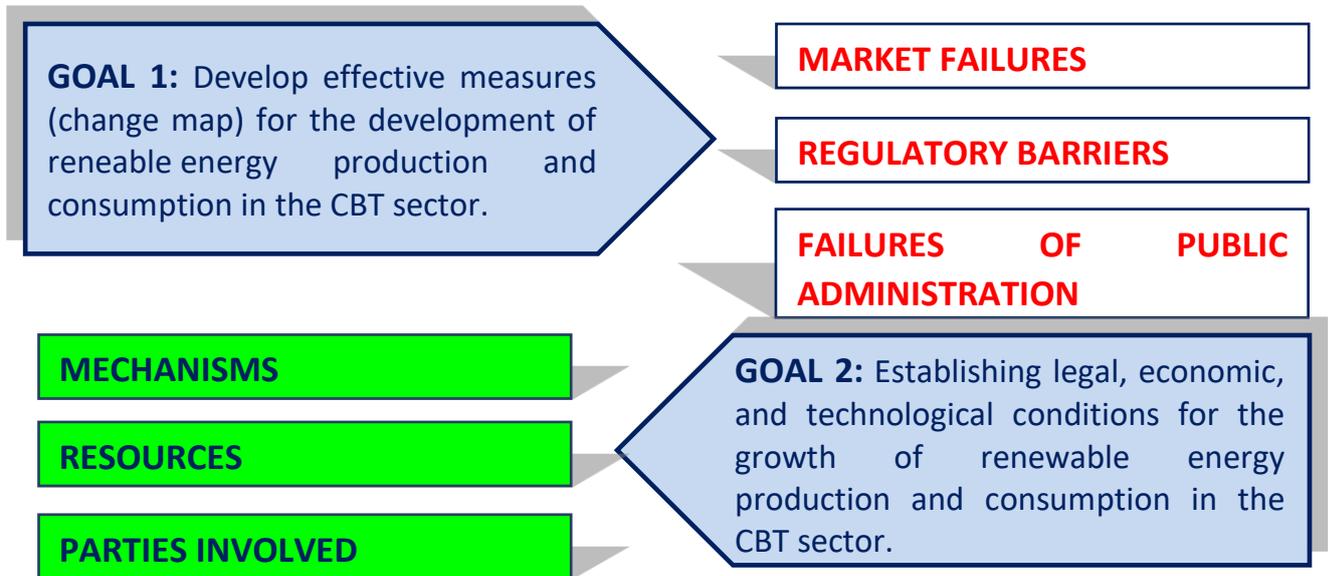
## **1. METHODOLOGY.**

Desk research, focus group discussions, and expert research of the problem under consideration were considered the main tools for developing the roadmap, along with hypotheses for which methods of political and economic analysis, evaluation of intervention effectiveness, partially RIA methodology, problem mapping, and foresight design of change goals were used. The proposed systematic approach, which was based on taking many factors into account and taking small steps, enabled the Interministerial Working Group to implement the following:

1. Evaluation of policy effectiveness (programme documents) and justification of policy improvement proposals and methods used to develop solutions;
2. A comprehensive assessment of the impact of the existing legal norms and provisions on the development of the economic and business activities of MSMEs (households), CBTs, and entrepreneurial activities in related areas and sectors ("RES and EE suppliers");
3. Assessment and analysis of environmental problems, identification of market failures and gaps;
4. Making recommendations and justifying changes in policies and measures to address problems;
5. Develop solution options and propose policy changes, practical actions, and interventions to increase clean energy production and consumption from RES, increase EE in the green tourism sector at the CBT level, and meet emission reduction targets.
6. Based on the results of the presentation and public discussion of the project - to finalise the document on the basis of the minutes of the IWG meeting and make changes (if necessary) to the Roadmap, publish the document.

## 2. OBJECTIVES OF THE ROADMAP.

The roadmap establishes the following goals to ensure the efficiency and dynamism of the development of energy production and consumption from renewable energy sources, as well as the growth of E/E in the green tourism sector at the community level:



The roadmap goals are being implemented with the goal of achieving inclusive (universal) access to low-cost, dependable, and safe technologies for generating clean energy from RES for the energy supply of tourism facilities at the CBT level. This will enable tourism businesses in the region to produce and use alternative, environmentally friendly energy.

The development of sustainable ("green") tourism at the community level, based on the production and consumption of energy from renewable energy sources, E/E growth, will reduce reliance on costly and insufficiently accessible, limited, and centrally supplied resources in the future. In places where there is no central supply, on the other hand, it will serve as an impetus to stimulate the development of environmentally friendly and mobile energy production.

In general, green tourism at the local community level will become a dynamically developing ecotourism direction in the future, as well as a stimulator of innovative development and entrepreneurship growth in the regions.

**Note:** Mass production and consumption of clean energy in the tourism sector, as well as increased energy efficiency, can serve as a model to support the development of microgeneration in other sectors of the economy, including households.

### 3. MAPS OF IDENTIFIED PROBLEMS/FAILURES.

The analysis of the main barriers to the development of renewable energy production and consumption, as well as the growth of E/E in the green tourism sector at the CBT level, revealed the following groups of issues:



The majority of the problematic issues are cross-cutting and extend beyond the tourism industry, affecting the powers and functions of other agencies as well as other business activities in various sectors and areas of the economy, science, and technology, on which the introduction of RE and EE technologies, mass self-production and consumption of clean energy, and energy efficiency growth rely, and which are also regulated by various branches of the Kyrgyz Republic's legislation.

#### 3.1. Market Failures.

##### 3.1.1. Unavailability, underdevelopment, and a lack of infrastructure for the provision of consulting, engineering, repair, maintenance, and other related services.

- CBT entities cannot independently master the technologies of clean energy production, consumption, and energy efficiency;
- Technology suppliers are unable to organise and carry out informational and marketing campaigns to promote their products for CBT entities due to limited resources;
- The underdevelopment of technological consulting, the high cost of developing individual projects (feasibility studies) of business plans and technical projects, a lack of funds to attract specialist consultants, a lack of technical, economic, financial, and other information, limited opportunities to introduce modern technologies, equipment, and systems for the generation and use of clean energy, problems with using high-tech equipment, service and repair, and so on.
- Value chains are short, services are not formed, consumers exist with needs that are distinct from the supply of RE and EE technologies, there is a high import dependency, and there is no emphasis on customer value creation.<sup>3</sup>

<sup>3</sup> The Report "The impact of value chains created by RE and EE technology suppliers on the development of clean energy production and consumption, as well as energy efficiency growth in CBT sectors in Tajikistan, Kyrgyzstan, and Uzbekistan."2021, <https://bit.ly/vcaotchet>

- The lack of a system and structures for energy efficiency assessment and technology selection, such as certification, accreditation, or energy audits. Existing foreign analogues are frequently prohibitively expensive.

### **3.1.2. Land use and land tenure issues, the use of land plots for the placement of generation facilities, energy storage, transmission, and entrepreneurial activities.**

- Unavailability of land resources (land plots) for the placement of Microgeneration, transmission, and storage facilities;
- The dominance of one category of agricultural land over industrial and energy lands, the complexity and absurdity of the transformation of micro-land plots;
- The procedures for determining a land plot's purpose (functional and target), the regulation of microgeneration facility placement in cities and towns, and beyond: a) utilising solar energy; b) utilising water energy; c) producing biogas; d) utilising wind energy; e) utilising hydro and geothermal energy;
- Lack of legal information on the status and category of lands on which the placement of microgeneration facilities is permitted (planned);
- Formation of a land plot at the expense of applicants' funds and provision on a competitive basis;
- Lack of information on the status and classification of natural resources: natural and artificial reservoirs, surface waters of rivers, geothermal springs, and other limited and unlimited natural resources;
- Lack of information on irrigation systems (channels, rapid flows), water intake and other specialised hydroengineering structures;
- Unjustified prohibitions on the use of forest and water fund lands (protected zones) without assessing the risks of the placement and operation of microgeneration facilities.

### **3.1.3. A scarcity and limited availability of financial resources.**

- Unavailability of credit products for non-specialized entities;
- The effect of the percentage rate (%) on the cost of energy produced using renewable energy and the project's payback period;
- Inadequate "green credit lines," credit opportunities, and financial institutions for preferential lending;
- Special funds do not have sources of funding or sources for project financing;

- High risks for parties when lending without solid business plans and feasibility studies, as well as failing to identify business entities as producers of clean energy based on RES;
- Long payback periods - investments in energy efficiency of facilities;
- Lack of funds for certification of real estate objects and applicability of norms and regulations for individual houses, micro-hotels;
- The underdevelopment of green credit products, in particular leasing for the purchase of generating mobile equipment based on RE technology.

#### **3.1.4. Low Competence.**

- The absence or lack of special knowledge and skills in the CBT entities themselves in the design of microgeneration facilities, in the selection of equipment, technology, potential assessment, calculation of the necessary (augmented) capacity, and involvement of the necessary natural resources, in business planning and benefit justification;
- Lack of competencies and qualifications of Suppliers and Consumers involved in the value chain, in the production and consumption of clean energy, and in the growth of energy efficiency.

#### **3.1.5. Environmental Problems.**

- Lack of immediate financial benefits for businesses from using high environmental standards;
- One-time capital cost increase if traditional sources of heat and energy supply for tourism facilities are available;
- Low understanding of how to reap the benefits of investing in green technologies (environmental projects), as well as a lack of tools to create competitive green advantages;
- Inadequate enforcement and incentives for the use of RE and E/E technologies;
- The availability of organic energy resources, hydrocarbons, and the ability to use electric energy at preferential rates;
- Lack of coherence in the implementation of programme tasks (there are gaps in industry programmes in terms of energy supply to industry through the use of renewable energy production technologies and E/E technologies) in the development of environmental entrepreneurship with tangible results.

### **3.2. Regulatory Failures.**

- Problems with regulatory regulation of territorial planning and building design, placement of clean energy microgeneration facilities in cities, settlements, and beyond;
- Burdensome regulation of land use and water use, prohibitions, and difficulties in obtaining permits (transformation, change of purpose and functional purpose of land plots, justification of safe use, construction of small generation facilities and infrastructure, and so on);
- Difficulties in obtaining approval from authorised bodies during the design and construction stages of real estate objects and construction, installation of Microgeneration, storage, renewable energy transmission facilities, and placement of energy-efficient equipment for energy supply of objects (buildings, structures) and certain types of activities;
- Difficulties with commissioning of facilities, conformity assessment (acceptance) due to the lack of primary regulatory documents –guidelines for the design, placement, operation of low-power power facilities;
- Assessment of conformity, certification, and operational control of equipment units for which there are no clear rules and technical regulations, as well as a lack of development of the system of recognition of safety obligations (safety declaration, energy efficiency);
- The absence of "green standards," systems, and structures for real estate "green labelling" (accommodation facilities). Foreign analogues frequently do not correspond to local technical standards, norms, and economic opportunities.
- Tax preferences (exemptions) are selectively provided with a narrow coverage of renewable energy conversion and E/E technologies. (equipment, assembly units, and materials for which there is dependence on imports). (The Foreign Economic Activity Commodity Nomenclature (TN VED) list does not fully cover the necessary imports).

### **3.3. Failures of Public Administration.**

- Limited and asymmetric information at the stage of development and adoption of management decisions at the level of competent authorities on the actual needs of the tourism sector and trends in the development of microgeneration;
- Lack of an actual assessment of decisions (policies), meaningful monitoring of the impact of policies (NLAs), analysis of the impact on growth and development of various groups of business entities, an actual assessment of the impact on achieving emission reduction goals;

- Problems of competent authorities and institutions (lack of experience and practises in planning the development of alternative energy sources based on RES for industries and sectors of the economy);
- The branch department's actual refusal to consider independent mass production of clean energy by non-core business entities as an alternative to filling energy shortages, solving environmental problems, and forming sound policies for the development of microgeneration based on entrepreneurial benefits;
- A lack of practical implementation mechanisms aimed at the development of microgeneration and difficulties in developing solutions in collaboration with other departments;;
- The presence of a dysfunction between the implementation of consumer energy supply policies (energy production in the required volume for the economy) and the growth of alternatives outside the energy sector, the conflict between the tasks of increasing energy efficiency and consumption of generated energy in the presence of high credit obligations of generating companies;
- Policy gaps related to the functional gap and the formal distribution of spheres of responsibility for economic sector development among authorised bodies distributed among departments on an industry basis;
- Underestimating the potential of hybrid technologies for generating energy from renewable sources, meeting local needs, and reducing reliance on traditional energy resources;
- Low resource support for implementing adopted policy documents, impact measures, support, monitoring, and actual performance evaluation, benefit analysis, and so on.

In general, existing barriers and policy gaps have a negative impact on the development of local production and the growth of clean energy consumption, energy efficiency improvement, the development of engineering infrastructure for energy supply of tourism facilities, the quality of tourist services, and compliance with emission reduction requirements..

Existing policies for the development of the traditional energy sector, despite the need to use small hydroelectric power plants and projects to build solar stations (large and medium-scale), are not focused on the development of small energy (microgeneration) in other industries; indeed, it can be argued that ignoring such potential is a deterrent to the development of tourism infrastructure.

The current state regulation of entrepreneurial activity for the production and consumption of renewable energy in the tourism sector at the CBT level does not provide specific preferences and thus does not create an impetus for the sector's long-term development.

#### **4. CHANGE DIRECTIONS AND RECOMMENDATIONS FOR POLICY FORMATION AND PROBLEM SOLVING.**

The state policy on tourism calls for the development of tourism as a priority sector of the country's economy, with one of the tasks being the development of infrastructure, specifically the engineering infrastructure of tourism facilities. At the same time, it should be noted that CBT tourism development using renewable energy is impossible without the creation of appropriate legal conditions and the use of market mechanisms for the widespread introduction of technologies for converting renewable energy into other types of clean energy. As a result, policies should focus not only on relevant entities and energy facilities, but also on assisting in the development of those types of entrepreneurial activities that are essential for the introduction of RE and E/E technologies, as well as local production and consumption of clean energy. Land use, water use, microgeneration, certification, territorial design and development rules, technical regulations, operational rules, access to information, amendments to sectoral legislative acts, and other related issues should all be improved. It is necessary to define separately what the engineering infrastructure of tourism facilities is, what "green standards" are, which institutions evaluate the confirmation of "green standards," which develop and adopt them, and which procedures for green labelling and a declaration of compliance with green standards are. Define the principles of green tourism and pass legislation prohibiting government from interfering with the non-core activities of tourism entities that generate clean energy in local territories for their own production and consumption. In fact, there is a task of legal deregulation of microgeneration, while technological issues of the nature of connection to common networks must be resolved (technical parameters, standards, approval of measuring instruments, and determining the maximum and minimum capacity of power receiving devices of the manufacturer and consumer, other parameters and conditions of delivery, mutual flow).

To maximise the economic benefits of introducing renewable energy and E/E technologies, it is proposed to develop legal and regulatory frameworks for surplus implementation, rules for accounting for the mutual flow of energy into centralised networks, for which it is necessary to legislatively define the procedure and procedures for connecting to networks, and determine the minimum power parameter of at least 15 kW for commercial supply, and the parameter for interchange is not less than 1 kV, when connected to a unified power supply system.

Based on the outcomes of the public discussion on July 6, 2022, and the proposals made, the following approaches to determining microgeneration parameters exist:

Arguments for defining parameters:

*In the Kyrgyz Republic, micro hydroelectric power plants with capacities of 1, 2, 5, 16, and 22 kW are manufactured. There is already a capacity that exceeds the indicator proposed in the bill by more than 15 kW, and any modernization or innovation can result in an increase that exceeds the indicator defined in the law.*

### **Policy formulation.**

The following key areas of change and responsible parties are identified based on the projected solutions:



### **MARKET FAILURES AND INTERVENTION**

To eliminate market failures in terms of RE and EE technology availability for CBT entities, it is necessary to eliminate foreign trade barriers, provide state-targeted support to entities and business structures capable of building sustainable supply chains, saturate the market under guarantees, focus on the needs and values of CBT entities and MSMEs, and have a sufficient level of business profitability. Such assistance measures can be implemented by promoting Microgeneration development policies and implementing assistance measures through programming the development of mass production and stimulating clean energy consumption, with the involvement of additional resources for implementation.

At the same time, it is critical to provide **informational support**, create and develop **infrastructure to support entrepreneurship development**, consulting, technological, and engineering services through specially created support institutions, implement R&D support measures, and establish requirements for state and municipal procurement of equipment for microgeneration of clean energy, which will eliminate market gaps and promote the development of business entities on which depends the growth of energy efficiency and local production, consumption of clean energy, and by and large the reduction of emissions.

**To address failures**, National Research Institute of Energy and Economics (NRIEE) proposes the development and implementation of policies and government programmes aimed at developing own production:

**Industrial equipment development and production:**

1. For thermal solar systems (solar thermal converters, capacious heat exchangers, storage tanks, automatic control and control systems, circulation pumps);
2. For biogas plants (methane tanks, gas tanks, faecal pumps, gas meters, distributors);
3. For heat pump installations (compressors, thermostats, electric motors, solar heat exchangers and evaporators, chokes, automatic control systems);
4. For geothermal installations (deep pumps, heat exchangers, compressors, control systems);
5. For wind power installations (permanent magnet generators, wind wheels, support farms, automation systems, batteries, inverters, stabilisation units);
1. 5. For Micro Hydro Power plants (electric generators, turbines, automatic control systems, water intake devices and hoses).

One of the recommendations made following the public discussion of the Draught Roadmap was to establish a "scientific and production association in the Kyrgyz Republic with the inclusion of research organisations, industrial enterprises, standardisation groups, installation teams, and firms dealing with research, design, production, and maintenance of equipment, as well as consulting and marketing for producers and consumers." Green technologies, on the other hand, and the results of science and technology, make new technologies available for their production processes and industry chains, and they are actually used.<sup>4</sup>

This, in fact, reflects existing approaches to cluster development and the creation of sustainable value chains, as well as the goals of the development of creative industries based on innovation, despite the fact that no such initiatives exist in the business environment.

### **IMPACTS PROPOSED ON POLICY FAILURES.**

1. It is proposed to take the following key actions within the framework of policies, necessary decisions aimed at achieving goals:

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<sup>4</sup> The report "The impact of value chains created by suppliers of RE and EE technologies, on the development of production and consumption of clean energy, EE growth in CBT entities in Tajikistan, Kyrgyzstan, Uzbekistan.", 2021, <https://bit.ly/vcaotchet>

- Development of measures to ensure the activity of standards (SNIIP, technical regulations, rules for the operation of "microgeneration" installations (for example, gas tanks of varying capacities), including the start of work on the development of the Customs Union's technical regulations "On the safety of equipment operating under excessive pressure" (TR CU 032/2013)" (IWG Minutes No. 9);
- Borrowing and adapting regulatory systems of internationally recognised urban planning regulatory systems: design and construction of the Code of Norms and Rules for the Design and Construction of Real Estate ("Eurocodes"), etc.;
- The decision to expand the list of commodities (microgeneration units and other RE and EE technologies, equipment, components, materials, and so on) that must be imported to qualify for VAT exemption (IWG Minutes No. 9);
- Forming special mechanisms of concessional financing through green lending and attracting funds from special funds (creation of pilot projects for the development of microgeneration at tourism facilities; development and provision of consulting, engineering, and technical services through the Entrepreneurship Support Centre (ESC) in the regions; mobilisation of entities in the form of cooperation (energy cooperatives) for their own production and consumption of clean energy and other mechanisms for the implementation of adopted programme documents) (IWG Minutes No. 5,8);
- Development of measures to provide access to information about hydrothermal resources (explored, used-licensed wells, preserved, promising) with an indication of their characteristics required for project development (IWG Minutes No. 9).

*Based on Minutes No. 10 and discussion of the Draught Road Map dated June 7, 2022, the Road Map should include items such as measures of information support for the development and use of RES resources and data availability, as proposed by Sh.U. Mavlyanbekov, Head of the Project Work Organization Department, National Research Institute of Energy and Economics:*

- *Creating a "Wind Cadastre";*
- *Creating a "Interactive Energy Map of Small Watercourses".*

*Conducting surveys and attracting resources to carry out the relevant work will be required for implementation.*

## IMPACT ON REGULATORY FAILURES

2. **The following key actions** are proposed within the framework of policies and decisions **on the impact of regulatory failures**:

- To amend the Law of the Kyrgyz Republic "On Tourism" to consider the feasibility of introducing "Green certification" of tourism facilities based on the study of the experience of countries, national and international standards of "Green Energy certification" (IWG Minutes No. 4);

*On the basis of Minutes No. 10, the IWG adopted the following decisions based on the outcomes of the discussion and the special position of the Ministry of Economy and Commerce - the authorised body for the implementation of the Technical Regulation System policy:*

*"In order to implement a system of green standards, it must be determined that the most acceptable form of conformity assessment will be "declaration of conformity" to the accepted green standards", as this is the most simplified and least expensive system of co-regulation.*

- Creation of regulatory and legal conditions for the development of a system for assessing the compliance of facilities and activities with environmental energy efficiency standards, green standards ("**Green eco-labeling**" of tourism facilities in the new edition of the Law of the Kyrgyz Republic "On Tourism". (Introduction of **norms and provisions on self-regulatory activities in the draught Law of the Kyrgyz Republic "On Tourism"**) (IWG Minutes No. 8);
- Amendments to the Land Legislation on the use of land without changing its legal status and category (formation of a land plot for microgeneration facilities **without changing its status and category with rationing of the permitted area** and gratuitous obligations of use for the intended purpose), "Multifunctionality" (IWG Minutes No. 8);
- Amendments to sectoral legislation governing microgeneration norms and regulations (energy sector) in accordance with the non-interference principle;
- Amendments and additions to the SNiP (regulation of microgeneration facility placement in cities, towns, and beyond). (Regulatory and legal regulation of the Rules for the Design and Development of Territories of Cities and Settlements) (IWG Minutes No. 8).

## IMPACT ON PUBLIC ADMINISTRATION FAILURES

### 3. *These key actions are proposed to be taken under the framework of policies and decisions concerning government failures:*

- Measures would be elaborated in order to establish a system of interaction between departments that improves both policy adjustment and its implementation. This includes discussion about sectoral institutions which regulate relationships in this field. (IWG Minutes No. 9);
- Failure to define business entities' attitudes toward agencies and functions in order to implement policies aimed at developing and supporting individual business activities, which is required for the implementation of RES and EE technologies, should be addressed;
- Adoption of a comprehensive programme for the development of microgeneration (for the development of engineering infrastructure of CBT tourism facilities) and elaboration of issues related to institutions regulating relations in the field of water and land resource management (IWG Minutes No. 8);
- Development of a draught **Comprehensive Microgeneration Development Program** for industries and sectors of the economy, including households, for interdepartmental coordination and interaction based on a “decentralized model”. (IWG Minutes No. 8);
- Following the discussion and the extended IWG meeting, a proposal on the need for more specific programming of the development of clean energy production and consumption obtained through the conversion of renewable energy sources was received (to develop special development programs).

- o To develop and adopt "Program for the Mass Introduction of MicroHES and Wind Power Units".
- o Development and adoption of a "Program for the Introduction of Biogas Plants in Rural Areas".
- o When developing documents for local (municipal, urban) socioeconomic development, assign the task of using water heating installations instead of solar energy as measures to reduce emissions and conserve energy using traditional resources.

Policy changes and decision-making require the activity and interest of politicians; the goals of changes should be clear to society and business; and industry

departments should reach an agreement on accepting responsibility for the reform's outcome.

The Kyrgyz Republic's Ministry of Culture, Sports, and Youth Policy is the primary authorised state body in charge of implementing state policy in the field of tourism. The Ministry of Economy and Commerce's (MEC) primary responsibilities include determining expected outcomes, forecasting consequences, calculating the economic benefits and costs of changes, and subordination to socioeconomic development goals. The MEC also determines and is accountable for entrepreneurship development policies, as well as the technical regulation system development policy, respectively, the department should become the architect of changes. The Ministry of Energy sets the development policy for the energy sector and draughts basic energy legislation.

In addition, a broader mandate will be required to increase the effectiveness of the changes being implemented at the authorised division of the presidential administration in the field of reform analysis and monitoring, as well as achieving the actual programme and project goals of the strategic documents being implemented.

The measures taken as part of the preparation of the Action Plan for the implementation of the Kyrgyz Republic's National Development Program until 2026, as approved by the President's Decree.

#### Section of the National Development Program of the Kyrgyz Republic until 2026

##### 4.4. "Tourism development" Item 522

| Measure/task  | Action   | Responsible performers                    | Period/terms                     | Sources of financing               |
|---|--|---|----------------------------------|------------------------------------|
| Development of a draught Kyrgyz Republic Law on amendments and additions to the Land Code <u>regarding the definition of the category of land for tourism facilities.</u> | Adoption of the law, <u>definition of the category of lands for tourism development.</u> | Ministry of Agriculture, MCISYP, LGA, LSG | II quarter 2022– IV quarter 2024 | Within the republican budget funds |

Objectively, the development of microgeneration for personal needs is a way to reduce emissions, increase the sustainability of energy supply, and achieve mass use of renewable energy and energy efficiency technologies in everyday life and business, particularly in areas where traditional energy supply systems are unavailable and capacity is limited.

It is critical to provide a legislative definition of "microgeneration" and to disclose the targeting of measures to support microgeneration development based on the type of renewable energy used.

Item 437 from the Implementation Plan of the NDP 2026 - "Development of MICROGENERATION of Electricity”:

Microgeneration is the activity of converting one type of energy from renewable sources into thermal or electrical energy directly on a property, a nearby water body, land plot or geothermal source.

In relation to real estate and resources (land, water, and subsoil), this definition allows for the expansion of the range of types of energy defined in draught laws, obtained through the use of renewable energy and technologies for converting one type of energy into another.

It should be noted that the other proposed formulations either have unjustified parametric power limits (15 kW to 0.5 MW) or include microgeneration of energy based on the use of fossil fuels.

The Implementation Plan in the adopted development programme until 2026 includes tasks for the development of specialised state programmes..

"Renewable energy sources and energy efficiency" section of the Program Plan.

- Item 421: "Development of the RES development strategy, as well as the introduction of amendments and additions to the NLAs and the Law "On Renewable Energy Sources".
- Item 435: Alternative Energy Sources Development: "Development of a Renewable Energy Development Program (in the Medium Term)".
- Items 438-439: "Development of a mechanism for financing renewable energy installations for microgeneration of electricity; development of a mechanism for crediting citizens who use renewable energy installations".
- Item 440: Development and revision of National Building Codes and Regulations; Development of a Measures Plan for the Implementation of Specific Technological Solutions in Various Sectors of the Economy.

According to the outcomes of the draught Roadmap discussion on 06/07/2022, based on information from the Green Alliance's partners, the Renewable Energy Association, and national expert Eleonora Kazakova, there are several bills today, each of which defines different generation parameters.

There are discrepancies between the draught norms and provisions developed by working groups and posted in the public domain in draught laws (based on the

results of the Inventory of legislation, in the implementation of the President of the Kyrgyz Republic's Decree). There are also initiatives by Parliamentarians (Jogorku Kenesh of the Kyrgyz Republic) on amendments and additions to current laws.

As a result, when there is a risk of a lack of coordination in the development of economic sector development policies among various executive and legislative authorities, the recommendation on the development of Microgeneration development policies is extremely important.

Decentralization is an economic model for small-scale energy development, as well as a type of policy implementation aimed at increasing energy production and consumption to meet their own needs through microgeneration from renewable energy sources.

This definition is a case for the development of programme objectives and determines the selection of a mixed model for the development of the country's energy sector.

## 5. PRACTICAL RECOMMENDATIONS FOR DRAUGHT REGULATIONS

### Proposed amendments to the draught laws of the Kyrgyz Republic based on the results of the inventory of legislation

#### 1. To define the spheres of regulated relations in the industry legislation.

1. Relations on production, transmission, distribution, sale and consumption of electricity using renewable energy sources are regulated by the legislation of the Kyrgyz Republic on renewable energy sources.

2. Relations on production, transmission, distribution, sale and consumption of electricity produced by microgeneration are established by decisions of the Cabinet of Ministers of the Kyrgyz Republic."

3. Supplier certification is an activity that assesses compliance with the standards and requirements of network organisations, the procedures of which are determined by the Cabinet of Ministers of the Kyrgyz Republic.

4. A certified supplier of heat and electricity in the grid is a business entity that receives energy from renewable energy sources that meets technical parameters, standards, and economically justified supply capacity, has passed a conformity assessment, and has been granted admission—a certificate.

The proposal to use a reference norm-definition for special law on renewable energy sources can be seen as an exception to the relationships governed by law on energy. However, exclusion as a method of rejecting regulatory intervention through state regulation in sectoral law indicates and does not solve the problem of the correlation of norms and legislative provisions.

**Option 1.** Therefore, it is proposed that basic norms and provisions be included in sectoral law that reveal the essence of microgeneration from renewable energy sources, such as the need to define and expand the conceptual apparatus and determine how the relations between the energy sector entities and the microgeneration entities will be regulated.

**Option 2.** In the case of contradictory approaches, positions, and the inability to regulate relations at this stage, **the development of a separate law on small energy** is proposed.

## Recommendations to the legislation on renewable energy

The activities of non-core business entities that generate clean energy from renewable energy sources for their own consumption and the sale of surpluses must be separated from the types of entrepreneurial activities for the production, transmission, and use of electric and thermal energy.

This approach will allow such entities to avoid licencing regimes of state regulation, and such additional activities (energy supply) should not be taxed under tax legislation.

### **Option 1.** Exclusion and parametric power limitation.

Objects of regulation of this Law (draught)

«3. This Law does not apply to microgeneration facilities that generate electricity from renewable energy sources and have a maximum capacity of less than 15 kW.»

- The principle of non-interference in the activities of non-core business entities that produce clean energy for their own consumption.

**Option 2.** Set no parametric limits on the capacity of Microgeneration plants and equipment at the legal level, despite the fact that determining the range of entities that generate clean energy based on renewable energy is necessary in order to specify and exclude such entrepreneurs from the number of specialised business entities engaged in energy production for the purpose of its implementation as the main activity.

Non-profile business entities are producers of heat and electricity for their own consumption and supply of surpluses through autonomous local networks.

A **hybrid energy supply system**, which is an energy system with several sources of renewable energy using at least two different technologies for generating (converting) electric and thermal energy, is the most promising in terms of generating electric energy in decentralised zones by non-profile business entities and households. Hybrid system total power parameters may exceed the 15 kW proposed in the law.

It is proposed that the legislation reveal the essence and content of the use of various RES resources and hybrid technologies for real estate energy supply.

Hybrid renewable energy systems are the generation of clean energy in decentralised areas using renewable energy conversion technologies within the creation of a single energy system for real estate by combining multiple energy sources (at least two different generation technologies).

A hybrid generation system based on the use of technological advantages from renewable energy sources is an efficient and painless way to transition from hydrocarbon-based thermal and electric energy generation to renewable energy generation. Hybridization is the most effective and reliable method of increasing energy efficiency and contributing to the rejection of traditional fuels.

### Necessary amendments to legislation (energy)

Energy auditing is the professional activity of individuals or organisations that provide services for assessing the state of a real estate object's energy system, energy supply systems, rationality of energy consumption, analysis of energy efficiency reserves, and development of a set of measures for their technical justification to reduce energy consumption and increase energy efficiency, including the use of modern technologies and the introduction of renewable energy sources.

The provision of consulting services and practical assistance in the development of feasibility studies and technical assistance to MSME entities with intentions to introduce renewable energy technologies and produce and consume clean energy is a distinguishing feature of the Energy Audit from the Certification of Energy Efficiency of Real Estate Objects. Furthermore, the creation of non-state structures eliminates the failure of information and technical advisory services. It should be noted that the activities of energy auditing organisations require proper regulation.

**Objective:** To promote the growth of energy efficiency in tourism facilities that do not fall under mandatory building and structure certification (the subject of assessment of standards and parameters of technical regulations on energy efficiency), even voluntary certification that does not cover the assessment of the use of renewable energy technologies for the real estate's energy supply, the goal is not met.

**Option 1.** Make amendments to the legislation.

An energy audit is a survey of energy facilities that includes the collection of documentary information, instrumental examination, information analysis, and the development of energy conservation recommendations (real estate object passport, standard compliance assessment, and so on) in order to identify energy efficiency, improvement measures, and the feasibility of their implementation.

**Option 2.** To supplement the legislation on energy efficiency of buildings and structures with parameters for assessing the use of renewable energy technologies directly for the energy supply of a real estate object, to develop and adopt assessment methods, and to define criteria and parameters.

#### 4. Elimination of legislative gaps

Recommendation: Development and approval of technical regulations of national standards and rules for the design, construction, operation and safety of Microgeneration facilities.

#### 5. Recommended changes and creation of legal conditions for the development of "Eco-Green certification"

A self-declared environmental statement (declaration) is an environmental statement declared without certification by an independent third party by a manufacturer, importer, distributor, or other person who may benefit from such a statement.

Development of national, regional standards or adaptation of standards.

Other options for implementing Green Certification by the decision of the IWG were excluded from the recommendations, based on the position of the Ministry of Economy and Commerce of the Kyrgyz Republic (IWG Minutes No. 10 of 07.06.2022)

**Development of "Green certification", as well as development of non-governmental institutions. (in reference to the draught Law on Tourism)**

**Option 1.** Amendments to the Law on Tourism.

**Option 2.** Definition of similar measures/actions in the draught Tourism Development Strategy.

Self-regulation is an initiative activity that is carried out by organised business or professional entities that consists of developing and establishing standards and rules for this activity, as well as monitoring compliance with accepted standards and requirements.

*Certain regulatory functions may be delegated to self-regulating organisations.*

Recommendation on amendments to the draught Law on Tourism Article No. ...Self-regulation in tourism.

1. Activities for setting standards, providing audit services, monitoring, and maintaining a register of the organization's member entities, and self-regulation of relations arising from business entities' voluntary acceptance of additional obligations to comply with accepted norms and rules in the fields of quality, safety, environmental friendliness of services provided, and operation of tourism infrastructure facilities.
2. Self-regulating organisations are non-profit organisations based on voluntary membership that unite entrepreneurs based on the principle of uniformity of types of entrepreneurial activity and are established for the purpose of self-regulating activities based on environmental Green standards, rules, and mandatory legislative requirements.
3. Standards of a self-regulating organisation: normative documents that establish additional requirements for members of a self-regulating organisation to conduct business activities, developed and accepted by members in the form of obligations, approved by the authorised body in the field of tourism, and duly registered.

Article 3. Basic concepts (draught law on Tourism based on the results of the inventory)

|   |   |
|---|---|
| Instead of the definition proposed in the draught law | Green technologies are safe technologies that minimise the negative impact on nature, people, and related processes, ensuring the operation of accommodation facilities, engineering, and communal infrastructure based on the rational use of natural resources without harming the environment. |
|---|---|

The law should be "Green" and the Goals should correspond to the SDGs, for this it is proposed to add the term: **and natural** resources of the Kyrgyz Republic.

"This Law defines the key principles of state policy aimed at establishing the legal, economic, social, organizational, and institutional foundations of tourism activity and regulates the relations of citizens of the Kyrgyz Republic, foreign citizens, as well as stateless persons, in the exercise of the rights to rest, freedom of movement, and other rights and interests when traveling. It also defines the procedure for rational use of tourism and natural resources of the Kyrgyz Republic."

Definitions of Engineering infrastructure as an integral part of tourist infrastructure:

|  |   |
|--|---|
| <p>Instead of the existing definitions</p> | <p>Proposed revision:<br/>         Tourism infrastructure is a set of accommodation facilities, <u>engineering and communal infrastructure for tourism activities</u>, as well as all modes of transportation for people and tourist goods, sports, catering facilities, entertainment, leisure organisations, and means of acquaintance for educational, business professional, recreational, and sporting purposes.</p> |
|--|---|

The object of regulation, the subject of the proposed approach identifying the object to which the requirements are imposed.

|   |   |
|---|---|
| <p>From the draught law:<br/>         - "accommodation facility - a place of accommodation with one or more equipped living rooms/premises intended for regular or irregular accommodation of tourists, excursionists and other individuals. Accommodation facilities are divided into collective and individual categories."</p> | <p>- accommodation facility is a property used for the permanent or temporary accommodation of tourists and excursionists that includes accommodation facilities (room stock) and separate living quarters (rooms) intended for living.</p> |
|---|---|

The recommended solution is to include concepts and definitions in tourism sectoral legislation. To implement the Green Label, the properties on and through which tourism services are provided must be identified and defined in accordance with uniform rules in the legislation of the Kyrgyz Republic.

"Green sticker" marking of tourism objects based on the conformity assessment procedure with the "Green Object" insignia (hotel, hostel, guest house, etc.)

**Option 1 is recommended:**

- Objectively, it is the responsibility of the tourism community and business associations to develop, approve, and adopt green standards, while monitoring and maintaining a register is the responsibility of specially created non-commercial self-regulatory organisations.

**Option 2.** To combine and supplement the statutory activities of business associations with regulatory tasks and responsibilities.

**Define the following for programme documents:**

- The task of development support policies is to programme the mass production and consumption of clean energy, as well as to increase energy efficiency among tourism entities at the CBT level and households involved in providing certain types of related services to tourists.
- The proposed draught action plan (inclusion of components (activities) in program documents in the implementation of the adopted documents of the Cabinet of Ministers of the Kyrgyz Republic and the draught program for the development of the Green Economy for 2023 and beyond). Appendix 1.

## 6. PRACTICAL MEASURES FOR PROGRAM DOCUMENTS

| №  | Task   | Measure/Action  | Terms of implementation | Performers  | Financing  |
|--|--|---|-------------------------|---|--|
| <b>1. IMPACT ON MARKET FAILURES</b>  |  |   |                         |   |  |
| <b>1.1. Unavailability, underdevelopment and lack of infrastructure provision of consulting, engineering, repair, maintenance and other related services..</b> |  |   |                         |   |  |
| <b>1.</b>  | Support of green tourism development infrastructure based on the production and consumption of clean energy based on renewable energy sources. | o Development of an information and consulting platform system based on the ESC.  | 2023                    | MEC, Ministry of Energy, CM, MES, universities, Technology incubators, specialized business entities, development partners, associations, other interested parties. | Within the framework of the republican budget, funds from international and donor organizations and private investments. |
|  |  | o Establishing basic technological spaces for renewable energy in regional centers (repair, maintenance, equipment operation and technology and parameter improvement issues).  | 2023                    |   |  |
|  |  | o Provision of information, consulting services, R&D support, and launch of marketing campaigns to promote renewable energy technologies and products, exhibitions, and events for the exchange of experience via the ESC, including in Kyrgyz Republic regions.c.  | Until 2026              |   |  |
|  |  | o Creation of an electronic information resource "cost-benefit calculator".   | 2023                    |   |  |
|  |  | o Conducting a "Business caravan" on technology transfer and other information and consulting support in the field of renewable energy on a systematic basis.   | Until 2026              |   |  |
|  |  | o Developing and mastering the industrial production of equipment:<br>- For thermal solar systems (solar thermal converters, capacious heat exchangers, storage tanks, automatic control and monitoring systems, circulation pumps);<br><br>- For biogas plants (methane tanks, gas tanks, fecal pumps, gas meters, distributors);<br><br>- For heat pump installations (compressors, thermoregulators, electric motors, solar heat exchangers and evaporators, chokes, automatic control systems); |                         |   |  |

|   |  |  |      |   |   |
|---|--|--|------|---|---|
|   |  | <ul style="list-style-type: none"> <li>- For geothermal installations (deepwater pumps, heat exchangers, compressors, control systems);</li> <li>- For wind power plants (permanent magnet generators, wind wheels, support trusses, automation systems, batteries, inverters, stabilization units);</li> <li>-For microHES (electric generators, turbines, automatic control systems, water intake devices and hoses).</li> </ul>   |      |   |   |
|   |  | <ul style="list-style-type: none"> <li>o Formation of the "Wind Cadastre";</li> </ul>  |      |   |   |
|   |  | <ul style="list-style-type: none"> <li>o Development of an "Interactive Energy Map of small watercourses".</li> </ul>  |      |   |   |
| 2.  | State support for manufacturers and suppliers of technological, innovative renewable energy equipment for green energy.                                  | <ul style="list-style-type: none"> <li>o Attracting a large number of producers and suppliers of renewable energy in the Kyrgyz Republic due to VAT exemption when importing goods under TNVED codes for microgeneration technologies based on renewable energy;</li> </ul>  | 2023 | MEC, Ministry of Energy, development partners, associations, other interested parties.  |   |
| <b>1.2. Problems of land use and land ownership, the use of land plots for the placement of generation facilities, storage, energy transmission, and conducting activities.</b> |  |  |      |   |   |
| 3.  | Optimization of procedures for the provision of land use for tourism purposes and the use of land plots for small energy and microgeneration facilities. | <ul style="list-style-type: none"> <li>o Legislative definition of standards for land plots reserved (used) for the placement, construction, and construction of small energy facilities..</li> <li>o Creation of regulatory standards (space-planning conditions, technical requirements, standards based on the parameters of the required (augmented) capacity of renewable energy installations) (microgeneration).</li> <li>o Land use without changing its legal status or category (Formation of a land plot for microgeneration objects without changing the status and category). "Multifunctionality".</li> <li>o Development of changes and proposals for land reform.</li> </ul> | 2023 | The Department of Architecture and Technical Regulation of the GAASZhKH under the CM, the State Agency of Land Resources under the MSVHRR of the Kyrgyz Republic (land, water, urban cadastre), primary and secondary land owners, the State Agency of Water Resources under the MSVHRR of the Kyrgyz | Within the framework of the republican budget, funds from international and donor organizations, private investments. |
| 4.  | <ul style="list-style-type: none"> <li>o Strengthening the system of planning and placement of microgeneration</li> </ul>                                | <ul style="list-style-type: none"> <li>o Development and adoption of municipal programs for the development of engineering infrastructure, master plans of PDP, taking into account the need for microgeneration facilities.</li> </ul>  | 2023 |   |   |

|  |  |   |            |  |   |
|--|--|---|------------|--|---|
|  | facilities, (including engineering infrastructure of tourism facilities of CBT).                         | <ul style="list-style-type: none"> <li>o Making additions to the SNiP – territorial planning norms, taking into account the placement of microgeneration facilities.</li> </ul>   |            | Republic (land, water, urban cadastre).  |   |
| <b>1.3. Lack and limited availability of financial resources</b> |  |   |            |  |   |
| 5.   | Expanding the access of CBT business entities to financial resources.                                    | <ul style="list-style-type: none"> <li>o Formation of special mechanisms of concessional financing through green lending and attraction of funds from special funds at "Reduced rates".</li> </ul>  | 2023       | The regulator, financial institutions, associations, large enterprises, financial structures, specialized international funds, authorized government agencies, development partners. | Funds from international and donor organizations, private investments   |
|  |  | <ul style="list-style-type: none"> <li>o The use of a portion of the Tourism Development Fund's funds to create exemplary microgeneration facilities in each region in order to solve the problems associated with the development of engineering infrastructure for the energy supply (microgeneration) of tourism facilities.</li> </ul>  | Until 2026 |  |   |
| 6.   | Implementation of leasing for microgeneration.   | <ul style="list-style-type: none"> <li>o Sustainable financing of microgeneration projects, development of equipment leasing.</li> </ul>  | 2023       |  |   |
| 7.   | Improving the financial stability of CBT business entities.  | <ul style="list-style-type: none"> <li>o Guarantees of acquisition of surpluses by centralized networks for transfer to consumer entities at a commercial tariff (reduction of payback periods for projects).</li> </ul>  | 2025       | Authorized state agencies,   | Within the framework of the republican budget   |
| <b>1.4. Low competence</b>                                       |  |   |            |  |   |
| 8.   | Increasing the potential in the field of production and consumption of energy based on renewable energy. | <ul style="list-style-type: none"> <li>o Conducting training seminars through entrepreneurship development centers: for "Suppliers" and "Consumers" of energy.</li> <li>o Creation of specific educational digital platforms for technology self-learning (mastering).</li> <li>o Organization of periodic practical training through Technology Development Support Centers at universities or other educational institutions. (technology transfer).</li> </ul> | Until 2026 | The Ministry of Education and Science of the Kyrgyz Republic, Universities (UMO), Development Partners, Interested "Suppliers" and "Consumers".                                      | Within the framework of the republican budget, funds from international and donor organizations, private investments. |
| <b>1.5. Environmental problems</b>                               |  |   |            |  |   |

|   |  |  |            |   |   |
|---|--|--|------------|---|---|
| 9.                                      | Stimulating the growth of "Green" projects.  | <ul style="list-style-type: none"> <li>State support for the use of environmentally friendly technologies.</li> </ul>  | Until 2026 | CM, MF, development partners  | Within the framework of the republican budget, funds from international and donor organizations, private investments. |
| 10.                                     | Formation of the "green" certification infrastructure.   | <ul style="list-style-type: none"> <li>Implementation of Green Certification. Development or adaptation of green standards.</li> <li>Creation of legal conditions for the activities of private organizations specializing in Energy Audit.</li> <li>Regulatory and legal regulation of the activities of non-governmental organizations to assess compliance with green standards.</li> </ul> | 2024       | The Ministry of Energy, business associations, the private sector, which has the initiative to create a quasi-regulation system |   |
| <b>2. IMPACT ON REGULATORY FAILURES</b> |  |  |            |   |   |
| 11.                                     | Strengthening the regulatory framework for the production and consumption of energy based on renewable energy sources. | <ul style="list-style-type: none"> <li>Amendments and additions to the legislation concerning the procedure for regulating non-core entities' activities for the production of clean energy for their own consumption and the sale of surpluses;</li> </ul>  | 2024       | CM, Ministry of Energy, private sector, development partners  | Within the framework of the republican budget, funds from international and donor organizations, private investment.  |
|   |  | <ul style="list-style-type: none"> <li>Regulatory and legal regulation of the rules of design and development of territories of cities and settlements (SNiP);</li> </ul>  | 2024       | Gosarchstroy, Ministry of Energy  |   |
|   |  | <ul style="list-style-type: none"> <li>Borrowing and adaptation of regulatory systems of internationally recognised systems of urban planning regulation: design and construction of the Code of Norms and Rules for the Design and Construction of Real Estate ("Eurocodes"), etc.;</li> </ul>  |            |   |   |
|   |  | <ul style="list-style-type: none"> <li>Regulation of the procedure and procedures for the activities of authorized bodies (primary property owners) involved in determining the functional and purpose of land plots for the placement of microgeneration infrastructure facilities.</li> </ul>  | 2023       | CM, Ministry of Energy, Gosarchstroy, development partners  | Within the framework of the republican budget   |
|   |  | <ul style="list-style-type: none"> <li>Regulatory and technical regulation of the safety of facilities.</li> </ul>   | 2023       |   |   |

|  |   |   |      |   |   |
|--|---|---|------|---|---|
|  |   | <ul style="list-style-type: none"> <li>Creation of regulatory and legal conditions for the development of a system for assessing the compliance of facilities and activities with environmental energy efficiency standards, green standards ("Green Energy Certification") in the new version of the Law of the Kyrgyz Republic "On Tourism".</li> </ul>   | 2023 | Gosarchstroy, Ministry of Energy, Authorized body in the field of safety assessment of facilities | Within the framework of the republican budget, funds from international and donor organizations, private investments. |
| 12.  | Improving the conditions for the import of technologies and equipment for the production of renewable energy. | <ul style="list-style-type: none"> <li>Determination of the commodity nomenclature of imported low-power equipment (microgeneration), renewable energy systems, and E/E technology for temporary VAT exemption (addendum to the list, Decree of the CM No. 196 dated 4.10.2021).</li> </ul>   |      | MEC, Ministry of Energy   | Within the framework of the republican budget   |
| <b>3. IMPACT ON PUBLIC ADMINISTRATION FAILURES</b> |   |   |      |   |   |
| 13.  | Stimulating the development of microgeneration.   | <ul style="list-style-type: none"> <li>Adoption of a comprehensive program for the development of microgeneration based on a decentralized model;</li> <li>Development of pilot projects within the framework of the Law of the Kyrgyz Republic "On Public-Private Partnership" to attract funds to finance microgeneration projects.</li> <li>Development and adoption of amendments and additions to the tourism development program.</li> <li>Development and adoption of the "Program of mass introduction of microelectric power plants and wind power units".</li> <li>Development and adoption of the "Program for the introduction of biogas plants in rural areas".</li> <li>Development of documents for local (municipal, urban) socio-economic development, taking into account the task of using water heating installations at the expense of solar energy as measures to reduce emissions and energy conservation of traditional resources.</li> </ul> | 2024 | Ministry of Energy, CM, associations, development partners  | Within the framework of the republican budget, funds from international and donor organizations                       |
| 14.  | Creating conditions for the development of cooperation in the field of green energy.                          | <ul style="list-style-type: none"> <li>Introduction of mechanisms to stimulate industrial cooperation and integration into value chains with the EAEU countries ("Energy Cooperatives").</li> </ul>   | 2024 | MEC, Ministry of Energy, CM   |   |

**Appendix 1. A map of the implementation of "Green Standards", conformity assessment procedures, assessment subjects, documents and forms of conformity assessment.**

**1. Key terms and definitions.**

| <b>Term</b>                                       | <b>Definition</b>  |
|---|--|
| <b>Green certificate</b> <b>ECO</b>               | - a certificate in the form of a blank document or an entry in a digital register, as well as a "Green sticker" to inform about compliance with standards or assumed obligations.  |
| <b>Green labelling</b>                            | - the process of determining compliance with a standard's level of achievement.  |
| <b>Conformity assessment</b>                      | - the professional activity of organisations that have been accredited to conduct assessment work.   |
| <b>Declaration of Conformity</b>                  | - a type of standard-compliance confirmation based on the subject of activity's acceptance of standard-compliance obligations.   |
| <b>Compliance monitoring</b>                      | - activities of self-regulatory or professional organisations to collect information and assess compliance with obligations and standards on a regular basis.  |
| <b>Mandatory standards</b>                        | - norms and requirements for activities, facilities, and management processes (quality management).  |
| <b>Standards of self-regulating organizations</b> | - community-adopted norms and regulations that supplement mandatory regulatory requirements or accepted parameters of quality standards.   |
| <b>Energy certification of buildings</b>          | - the process of collecting and processing information on energy resource use in order to obtain reliable information about the volume of energy resources used, on building energy efficiency indicators, identifying energy saving and energy efficiency improvement opportunities, and reflecting the results obtained in the energy certificate. |
| <b>Energy certificate of the building</b>         | - a document in the prescribed form, filled out by a certified specialist, that includes indicators of the building's energy efficiency.   |
| <b>Energy marking</b>                             | - a brief description of the building's energy efficiency for information purposes (energy efficiency index).  |
| <b>Energy audit</b>                               | - professional activity of organizations, specialists who carry out monitoring and provide consulting and information services to the applied subjects of activity.  |
| <b>Green branding</b>                             | - specific activity of the organisation (business entity) to meet standards in order to obtain environmental benefits and competitive advantages in the tourist services market.   |

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|--|---|
| <b>Certification and conformity assessment</b>     | - a regulated process for confirming compliance with regulatory requirements and legal standards in the field of technical and environmental safety of services provided.   |
| <b>Self-regulation</b>                             | - initiative activities carried out by organised business and professional entities, with the content of developing and establishing standards and rules of conduct, as well as monitoring compliance with the adopted standards and requirements.  |
| <b>Self-regulation in tourism</b>                  | - activities for setting standards, providing audit services, monitoring, and maintaining a register of the organization's member entities, as well as self-regulation of relations arising from the voluntary acceptance of additional obligations by business entities to comply with the requirements of accepted norms and rules in the fields of quality, safety, environmental friendliness of services provided, and operation of tourism infrastructure facilities. |
| <b>Self-regulating organizations</b>               | - non-profit organisations based on voluntary membership that unite entrepreneurs based on the principle of uniformity of types of entrepreneurial activity and were established for the purpose of self-regulation of activities based on environmental Green standards, rules, and mandatory legislative requirements.  |
| <b>Standards of a self-regulating organization</b> | - regulatory documents establishing additional requirements for members of a self-regulating organisation to conduct business activities, developed and accepted by members in the form of obligations, approved by the authorised body in the field of tourism, and duly registered.   |

**2. Solutions and correlation with the tasks of energy efficiency growth, development of production (generation) of clean energy from RES at the CBT level.**

| <b>Option 1</b>   | <b>Actions/measures</b>   | <b>Goals</b>  | <b>Tasks</b>   | <b>Expected result</b>  | <b>Participants in the relationship</b>   | <b>Stages of implementation</b>   |
|---|---|---|--|---|---|---|
| <b>1. Application of Certification and assessment of compliance with energy efficiency standards of real estate</b> | <b>Promoting, informing, and seeking external financial resources to pay for certification services and reduce energy costs. Government programmes.</b> | <b>Reduction of emissions through certification for compliance with energy efficiency standards of real estate on a</b> | <b>Rational use of energy resources, energy conservation, reduction of heat loss, reduction of energy intensity.</b> | <b>Reducing energy costs, getting benefits from investing in energy efficiency, reducing emissions.</b> | <b>A business entity that uses a real estate object for the purpose of providing tourist services. An organization or a certified specialist in</b> | <b>Legislation has been formed, standards (regulations) have been defined, certification of specialists is available.</b> |

|                               |  |                 |  |  |  |  |
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| objects on a voluntary basis. |  | voluntary basis |  |  | the assessment of compliance with energy efficiency standards (regulations). |  |
|-------------------------------|--|-----------------|--|--|--|--|

**3. A list of regulations governing the certification of buildings, standards, requirements, procedures, including the determination of the cost of certification services.**

<http://gosstroy.gov.kg/ru/energoeffektivnost-zdaniy/%D0%BD%D0%BE%D1%80%D0%BC%D0%B0%D1%82%D0%B8%D0%B2%D0%BD%D0%BE-%D0%BF%D1%80%D0%B0%D0%B2%D0%BE%D0%B2%D1%8B%D0%B5-%D0%B0%D0%BA%D1%82%D1%8B/>

- Law of the Kyrgyz Republic No. 88 of July 7, 1998 "On Energy Saving";
- Law of the Kyrgyz Republic No. 137 of July 26, 2011 "On Energy Efficiency of buildings",
- Technical regulations of the EAEU.
- Regulation "On the Procedure for Energy Certification of Buildings" (PPCR No. 531 dated August 2, 2012);
- Regulation "On the Procedure for Periodic Monitoring of the energy efficiency of Boilers, Heating systems and Hot water supply of buildings" (PPCR No. 531 dated August 2, 2012);
- Regulation "On the Procedure for the Qualification certification of specialists" (PPCR No. 13 dated January 17, 2020);
- Regulation "On the State Register" (PPCR No. 13 dated January 17, 2020).

**Technical standards and documents for specialists:**

- Methodology for calculating energy efficiency indicators of buildings;
- Methodology of periodic monitoring of energy efficiency of boilers, heating systems and hot water supply of buildings;
- SNIP 23-01-2013 "Thermal protection of buildings";
- SP 23-01-2013 "Thermal protection of buildings".

**Procedural documents and rules:**

- Guidelines for determining the cost of energy certification of buildings (Gosstroy Order No. 40 dated 17.04.2020);
- Collection No. 7 of prices for determining the cost of engineering and technical works for the inspection of buildings and structures, for the development of regulatory documents, technical specifications and conclusions.

*OPTION 1. Voluntary certification of real estate objects of CBT entities for compliance with energy efficiency standards in accordance with the norms and provisions of the current legislation of the Kyrgyz Republic.*

Firstly, this form of influence on business entities operating or owning real estate objects is not related to the assessment of the use of clean energy generation technologies from renewable energy sources for the energy supply of a tourist object, it is also practically impossible to correlate with energy efficiency the activity of processing organic waste into "Biogas", which in turn is used to obtain thermal energy.

Secondly, this form has nothing to do with other "Green" and environmental parameters and sanitary standards, including the assessment of compliance with the standards of comfort of accommodation facilities, i.e. they do not take into account the features of tourism facilities.

Thirdly, the applicability of energy efficiency standards (minimum mandatory requirements) to tourism facilities, which in one case cannot initially meet, since they are built outside the standards, (without taking into account building codes and regulations) have seasonality of operation, can be combined or repurposed from residential facilities, do not have a capital base of the facility (lightweight, temporary, mobile), with an area of up to 150 squares.

Fourth, the costs of certification, consulting, and investment in energy efficiency for the most part do not bring direct economic benefits, and are significant in size (cost);

Fifth, "volunteerism" is currently being implemented only with external support (grants) using co-financing, which is aimed at the acquisition and practical use of technologies (materials) E/E for CBT subjects.

Sixth, the goal of increasing the production and consumption of clean energy by tourism entities is not achieved, since there are no tasks of replacing traditional technologies for obtaining heat from energy resources that pollute the environment with technologies for obtaining clean energy from renewable energy sources.

Seventh, the regulator and the method of influence is based on the application of administrative-permissive, control principles in combination with paid services based on civil law relations, which does not correspond to the principle of voluntariness.

**Note:** The report of the UNECE project<sup>5</sup> - based on the results of the analysis, a discrepancy was found between the energy efficiency objectives of the Framework Guidelines in the field of Energy Efficiency Standards of buildings and the implementation of existing energy efficiency standards of buildings in the Kyrgyz Republic.

**conclusion:** This impact system can be actively applied to newly designed and constructed real estate objects, for which the requirements and standards of energy efficiency of buildings are established.

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<sup>5</sup> [https://unece.org/sites/default/files/2021-07/National\\_Study\\_for\\_Kyrgyzstan\\_RUS\\_1.pdf](https://unece.org/sites/default/files/2021-07/National_Study_for_Kyrgyzstan_RUS_1.pdf)

*OPTION 2. Development, coordination, adoption and implementation of "green ECO standards, creation of legal conditions for application, industry use.*

| Option 2  | Actions/measures  | Goals   | Tasks  | Expected result   | Relationship participants   | Stages of implementation   |
|---|---|---|--|---|---|--|
| <p><b>1. Introduction of "Green Eco standards" for tourist accommodation facilities (tourists) and certain types of tourist and related services.</b></p> | <p><b>1. Development and adoption of national standards.</b></p> <p><b>2. Adaptation and adoption of standards of other countries and regions.</b></p> <p><b>3. Introduction of standards by business entities into practice.</b></p> | <p><b>Reducing the negative impact on the environment.</b></p> <p><b>The growth of production and consumption of clean energy from renewable energy sources, the growth of energy efficiency, the achievement of sustainable tourism goals.</b></p> <p><b>Entrepreneurship development and income growth.</b></p> | <p><b>Creation of legal conditions for the development of a system of industry standards and rules for their use and mechanisms for their practical application.</b></p> | <p><b>Stimulating business entities to introduce green technologies, increase energy efficiency, production and consumption of clean energy.</b></p> <p><b>Increasing competitiveness through green branding and generating more revenue.</b></p> | <p><b>Organized representatives of the business community, professional organizations (consulting), experts, specialists, authorized state bodies (MEiC), development partners, accredited conformity assessment organizations.</b></p> | <p><b>1. Creation of legal conditions for the introduction of regulation based on industry standards with the definition of responsible entities with relevant rights and obligations.</b></p> <p><b>2. Development or adaptation of standards, coordination and adoption of documents, with</b></p> |

|  |  |   |   |   |  |
|--|--|---|---|---|--|
| <p><b>2. Formation of a legislative framework for the development of co-regulation (quasi-regulation) and self-regulation.</b></p> | <p><b>1. Regulatory and legal support of activities:</b></p> <ul style="list-style-type: none"> <li>-development and establishment of standards (professional standards);</li> <li>-monitoring compliance with accepted standards and requirements.</li> </ul> <p><b>2. Keep a register;</b></p> <p><b>3. Implementation of conformity assessment.</b></p> | <p><b>Development of self-regulation.</b></p> | <p><b>1. The Law of the Kyrgyz Republic "On Self-Regulation" (SRO).</b></p> <p><b>2. Amendments to the draught Law "On Tourism"</b></p> | <p><b>1. Reduction of government costs for state regulation.</b></p> <p><b>2. Development of institutions of self-regulation.</b></p> | <p><b>determination of their status.</b></p> <p><b>3. Implementation of standards (training, consulting, auditing, informing)</b></p> <p><b>4. Development of rules, procedures and procedures for conformity assessment, conformity assessment, monitoring, labeling, accounting, etc.).</b></p> <p><b>5. Introduction of amendments and additions, norms and regulations allowing the development of self-regulation in the industry (the Law "On Tourism)</b></p> |
|--|--|---|---|---|--|

*OPTION 3. Borrowing, setting standards and mandatory application, through the certification of servants within the norms and regulations of the technical regulation system.*

| <b>Option 3</b>   | <b>Actions/measures</b>   | <b>Goals</b>  | <b>Tasks</b>  | <b>Expected result</b>   | <b>Relationship participants</b>  | <b>Stages of implementation</b>   |
|---|---|---|---|--|---|---|
| <b>1. Adoption of standards and introduction of certification of services containing risks and hazards.</b> | <b>Amendments to the law "On the basics of Technical regulation of the Kyrgyz Republic", on certification of services, development of regulations (standards) of services</b> | <b>Reducing the threats of environmental pollution in the provision of tourist services through the use of traditional energy resources</b> | <b>Coordination and development of minimum requirements and standards of services</b> | <b>Reducing emissions, reducing the number of tourist services, reducing the use of resources.</b> | <b>Authorized bodies in the field of technical regulation, business entities, international organizations for certification and mutual recognition.</b> | <b>1. Making a decision on the introduction of conformity assessment and the development (adoption) of standards.<br/><br/>2. Implementation of conformity assessment and control</b> |

1. In accordance with the legislation of the Kyrgyz Republic: standardization is the activity of establishing rules, general principles, characteristics designed for repeated use on a voluntary basis, aimed at achieving orderliness, increasing competitiveness in the field of production and turnover of products, performance of works and provision of services; It is obvious that voluntary application does not exclude the need to establish standards. A standard is a document developed on the basis of consensus, which establishes rules, general principles, characteristics of products or processes of design (including surveys), production, construction, installation, commissioning, storage, transportation, sale, operation, disposal, performance of works, provision of services for voluntary reuse. (The standard may also contain requirements for terminology, symbols, packaging, labeling and/or labeling); Objectively, the use of standards in the design of real estate in terms of compliance with energy efficiency requirements is already laid down in national legislation, with the exception of the requirement for the mandatory use of renewable energy technologies for energy supply of real estate as a percentage of traditional energy resources. In practice, the system of stimulating the use of renewable energy technologies for its own production and consumption cannot be the subject of a technical regulation system, and most likely the establishment of mandatory requirements for the percentage use of renewable energy for the energy supply of a real estate (construction) object will be considered an excessive regulatory barrier. It is necessary to pay attention to the "organization standard" - a standard approved by a legal entity to improve production and ensure the quality of products, work, services, which is a completely acceptable form of organization of the organization's quality management of services provided, and can be used by analogy when introducing conformity assessment procedures and "green labeling". However, this approach is applicable in Option 2.

2. Accordingly, the law "On the Fundamentals of Technical Regulation in the Kyrgyz Republic" defines the objects of technical regulation - products, including buildings and structures and/or processes related to product requirements for design (including surveys), production, construction, installation, commissioning, storage, transportation, sale, operation, disposal, execution of works and the provision of services. After all the clarifications and analysis of the norms and provisions of the legislation, the application practices have not revealed the objects of technical regulation in the tourism sector that fall under the object - the provision of services. In our opinion, an important subject of regulation is the definition of: Resource conservation - activities (organizational, economic, technical, scientific, practical, informational), methods, processes, a set of organizational and technical measures and measures that accompany all stages of the life cycle of objects and are aimed at rational use and economical expenditure of resources that ensure the growth of useful results when relative stability of material costs. (accordingly, energy saving is allocated to a separate category of management) and "energy efficiency" is considered as a characteristic reflecting the ratio of the beneficial effect from the use of energy resources to the costs of energy resources produced in order to obtain such an effect, in relation to products, technological process, legal entity, individual entrepreneur with the existing level of technology and technology development and compliance with the requirements to environmental protection. Consequently, with the introduction of technical regulations, these parameters are defined and regulated sufficiently and are quite applicable to new facilities, buildings and structures, but it is not entirely clear how to apply this to the goals of reducing emissions through the use of "dirty" energy resources, since the efficiency (efficiency of coal for room heating is higher than the use of solar energy).

3. Article 23. Voluntary confirmation of compliance as a model or as a way to achieve goals and objectives (growth of production, consumption, and/or tourism sector).

***«1. Voluntary confirmation of conformity is carried out at the initiative of the applicant on the terms of the contract between the applicant and the certification body. Voluntary confirmation of compliance can be carried out to establish compliance with standards, certification systems and terms of contracts.»***

**2. Certification Body:**

*performs conformity assessment of objects of voluntary conformity assessment;  
issues certificates of conformity for objects that have passed voluntary certification;  
grants applicants the right to apply the conformity mark if its application is provided for by the appropriate voluntary certification system;  
suspends or terminates the validity of the certificates of conformity issued by them.*

**3. A voluntary certification system may be created by a legal entity and (or) an individual entrepreneur or several legal entities and (or) individual entrepreneurs.**

*The person or persons who have created a voluntary certification system establish a list of objects subject to certification and their characteristics, for compliance with which voluntary certification is carried out, the rules for performing the works provided for by this voluntary certification system and the procedure for their payment, determine the participants of this voluntary certification system. The certification system may provide for the use of a conformity mark.*

**4. Marking with a conformity mark of objects whose conformity has not been confirmed is not allowed.**

This approach can be used by analogy, but it is not applicable as measures of influence to achieve goals and, according to the experience of other countries, it cannot be connected in any way with the goals of entrepreneurship development, at the same time green labeling and green certification are not related to the main goals of the technical regulation system - ensuring safety and compliance with minimum standards. Accordingly, the proposed approach in option 3 and laid down in the draught law on Tourism will not have an impact on reducing emissions and development, moreover, it is possible to create high barbers of technical regulation.

**OPTION 4.** *The inclusion in the draught industry program of the Tourism Development Strategy until 2026, (paragraph 528 of the Action Plan of the NDP of the Kyrgyz Republic until 2026) the following sections: "Development of Self-Regulation in the tourism sector"; "Introduction of "green" industry standards"" Development of draught NLA fixing the procedure and procedures for assessing compliance with "Green Eco standards", and there is also a mechanism for "Green labeling" of tourism facilities and monitoring.*

| Option 4  | Actions/measures  | Goals   | Tasks   | Expected result   | Relationship participants   | Stages of implementation  |
|---|---|---|---|---|---|---|
| <p><b>1. Formation of a legislative framework for the development of industry co-regulation (quasi-regulation) and self-regulation.</b></p> | <p><b>Development of NLA projects, their justification and promotion.</b></p> | <p><b>Creation of legal conditions for the activity and development of self-regulation in the industry.</b></p> | <p><b>Formation and implementation of de-regulation policy and development of self-regulation institutions.</b><br/> <b>Legal regulation of emerging issues in the field of implementation of green ECO standards and renewable energy technologies, E/E.</b></p> | <p><b>Optimization of the parties' costs for the regulation of relations. And the creation of legal foundations for the development of institutions of self-regulation.</b></p> | <p><b>Organized representatives of the business community, professional organizations (consulting), experts, specialists, authorized state bodies (MEC), development partners, accredited organizations for conformity assessment, business entities of the tourism sector.</b></p> | <p><b>a) Introduction of amendments and additions, norms and regulations allowing the development of self-regulation in the industry (the Law "On Tourism).</b></p> <p><b>b). Creation of legal conditions for the introduction of regulation based on industry standards with the definition of responsible organizations that have the appropriate rights and responsibilities, responsibilities.</b></p> |

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|---|---|---|--|---|---|--|
| <p><b>2. Conducting an advocacy campaign for the development of self-regulation.</b></p> <p>- Study and exchange of experience between associations (SRO) of other countries" applying similar approaches and ways to achieve the goals of sustainable tourism development.</p> | <p>- Organizing and conducting an advocacy campaign, forming a circle of interested business organizations.</p> <p>Finding resources and involving development partners to provide technical, expert support for the study and exchange of experience between organizations of other countries.</p> | <p>Studying the experience and practices of self-regulation.</p> <p>- Formation of a circle of interested organizations to promote initiatives and are ready to assume obligations and responsibilities.</p> <p>- Provision of resources for the process of forming and implementing policies</p> |  | <p>Adoption by the parties of one of the forms and models of self-regulation in the sector.</p> | <p>International organizations, associations of other countries, experts.</p> |  |
|---|---|---|--|---|---|--|

|  |  |  |   |  |   |   |
|--|--|--|---|--|---|---|
| <p><b>3. Creation of a project for the development and adaptation of Industry "Green ECO standards" in the tourism sector.</b></p> <p><b>- Finding resources for the implementation and activities of responsible organizations.</b></p> | <p><b>- Development and adoption of national standards.</b></p> <p><b>Assistance in the pilot implementation of the standards by business entities of the MSME at the CBT level.</b></p> | <p><b>- Reduction of negative impact on the environment. The growth of production and consumption of clean energy from renewable energy sources, the growth of E / E, the achievement of the goals of "Green Tourism".</b></p> <p><b>- The development of the activities of business entities, the green recognition of tourist sites, the emergence of a competitive advantage.</b></p> | <p><b>Introduction of industry-specific "Green Eco standards" and rules for their use and mechanisms for their practical application.</b></p> | <p><b>Adoption by business entities of "Green Standards", including a cumulative assessment of the use of green technologies, energy efficiency indicators, the ratio of the use of renewable energy technologies for energy provision of their facilities and activities.</b></p> <p><b>Extracting additional income through green branding (labeling).</b></p> | <p><b>- Assistance in the implementation of policies and provision of technical assistance in the practical development and implementation of standards. – Increasing the potential of associations, specialists of management structures, authorized bodies and organizations.</b></p> | <p><b>Development or adaptation of standards, coordination and adoption of documents, with determination of their status.</b></p> <p><b>3. Implementation of standards (training, consulting, auditing, informing</b></p> |
|--|--|--|---|--|---|---|

|  |  |   |  |  |  |   |
|--|--|---|--|--|--|---|
| <p><b>4. Development of a package of regulations regulating the procedure and procedures for assessing compliance with "Green Eco Standards", as well as the mechanism of "Green labeling" of tourism facilities and monitoring compliance with declared obligations by a business entity.</b></p> | <p><b>Development and adoption of the NPA defining, implementing mechanisms, and regulating the relations of the parties in the process of conformity assessment, conformity assessment, (declaration, labeling, etc.)</b></p> | <p><b>- Creation of legal conditions for the practical implementation of policies .</b></p> |  |  |  | <p><b>- Development of rules, procedures and procedures for conformity assessment, conformity assessment, monitoring, labeling, accounting, etc.)</b></p> |
|--|--|---|--|--|--|---|

**Option 4** is applied if the deadlines for monitoring the execution of the Presidential Decree on the inventory of legislation do not allow finalizing the bill taking into account the recommended option. In case of refusal to implement self-regulation without the development and adoption of a special law "On self-regulation and SRO activities". (For reference: the draught law has been developed for more than 7 years). When coordinating positions, it will be found out that the organized business community is not ready to assume obligations and responsibilities. There will be risks of justification and approval by the parties of the standards, as well as the readiness of the business (environment) to assume obligations due to limited resources for the implementation of Green Eco Standards in the next year or two. In this case, it is necessary to use the program-project method of implementation through the inclusion of activities, goals and objectives in the Draught Strategy for the Development of the Tourism industry for subsequent years.

**Option for recommended regulation (impact)** Option 2, which is based on self-regulation development, the development and adoption of acceptable standards, and the creation of legal conditions for the development of such a quality management system, is subordinated to the goals of sustainable development and business goals, gaining additional benefits from the introduction of green technologies.

The main risk is delaying the implementation of policies and mechanisms to encourage the development of green technologies and gaining competitive advantages from the implementation of green standards, thereby benefiting the parties in the event that state regulation is rejected.