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Финансирование Европейского Союза

Fourth Meeting of the SECCA Project Steering Committee

7 April 2026
Sheraton Astana Hotel, Kazakhstan

Project progress over 7th and 8th periods
Opportunities for strengthening project results and scaling up

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Content of presentation

1. Project milestones
2. Project Steering Committee
3. Progress during the 7th and 8th periods
4. Opportunities for strengthening project results and scaling up

Project milestones (1)

15 March 2022	Project start date
29 March 2022	Kick off meeting (Astana, Kazakhstan)
25 October 2022	Approval of the Inception report
17 November 2022	Launching event (Samarkand, Uzbekistan)
4 April 2023	1st meeting of the Project Steering Committee (PSC-1)
14 April 2023	Submission of 1st Progress Report (PR-1) covering the 2nd period (15 September 2022 – 14 March 2023)
18 October 2023	Submission of 2nd PR covering the 3rd period (15 March 2023 – 14 September 2023)
10 April 2024	Submission of 3rd PR covering the 4th period (15 September 2023 – 29 February 2024)

Project milestones (2)

19 April 2024	2nd Meeting of the Project Steering Committee (PSC-2)
1 October 2024	Submission of 4th Progress Report (PR-4) covering the 5th period (1 March 2024 – 31 August 2024)
27 March 2025	Approval of adjustments to the SECCA project's activities (discussions were initiated during the PSC-2)
28 March 2025	Submission of 5th Progress Report (PR-5) covering the 6th period (1 September 2024 – 28 February 2025)
16 April 2025	3rd Meeting of the Project Steering Committee (PSC-3)
30 September 2025	Submission of 6th Progress Report (PR-6) covering the 7th period (1 March 2025 – 31 August 2025)

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Project Steering Committee

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Project Steering Committee

Objectives of Project Steering Committee (PSC):

To oversee and validate the overall direction of the project

Today's focus:

- Progress achieved since the 3rd PSC meeting (held on 16 April 2025 in Astana)
  - 7th period (1 March 2025 – 31 August 2025)
  - 8th period (1 September 2025 – 31 May 2026)
- Main project results achieved during implementation
- Opportunities for strengthening project results and scaling up

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Progress achieved during the 7th and 8th periods (1 March 2025 – 31 May 2026)

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Progress achieved – Output 1.1 (1)

Activity	7th Period	8th Period
1.1.1. Providing assistance in the development of regional and country-specific frameworks for gender and climate sensitive EE and RE policies	90%	100%
1.1.2. Continued support to existing regional organizations and centers in promoting EE and RE and integrating climate change concerns in developing capacity, strengthening the regulatory & policy framework	60%	100%
1.1.3. Engagement of representatives of Central Asian countries in periodic high-level policy dialogue and technical meetings with the EU	70%	100%
1.1.4. Assistance in the development and enforcement of country-specific NREAP and NEEAP	100%	100%
1.1.5. Furnishing country-specific technical assistance related to the development, harmonization and enforcement of MEPS and labels for electrical appliances and buildings	60%	100%

<50% 50-70% 71-85% 85-99% 100%

Progress achieved – Output 1.1 (2)

Activity	7th Period	8th Period
1.1.6. TA in energy auditing for sustainable/climate-proof buildings and industry	95%	100%
1.1.7. Capacity building for EE/RE	90%	100%
1.1.8. Provision of trainings for eligible institutions on effective participation in projects in the framework of Horizon Europe	90%	100%
1.1.9. Organization of EU-CA country Sustainable Energy Days	80%	100%
1.1.10. Raising awareness on the benefits of the transition into more sustainable and gender-inclusive energy systems	80%	100%
1.1.11. Providing assistance to CA countries in preparing for benefiting of opportunities provided by the Paris Agreement	60%	100%

<50% 50-70% 71-85% 85-99% 100%

Progress achieved – Output 1.2

Activity	7th Period	8th Period
1.2.1. Increasing the exposure of CA universities to EE knowledge	80%	100%
1.2.2. Developing an outreach plan for policy-makers on regional and country-specific energy modelling	90%	100%
1.2.3. Promoting EE and RE for further target groups through the production and online publication of short videos and short reports on good practices	80%	100%

Progress achieved – Output 1.3

Activity	7th Period	8th Period
1.3.1. Furnishing technical assistance for improving regional and national statistical data and information	95%	100%
1.3.2. Promoting information sharing among the CA countries	70%	100%
1.3.3. Strengthening the accuracy of SDG7 reporting in the creation of future sustainable energy policies	50%	100%
1.3.4. Providing assistance in developing national energy system databases for developing National Energy Balances in line with EU and international standards	80%	90%
1.3.5. Providing technical assistance for scenario analysis for different energy sub-sectors at regional and national levels by using modelling tools	75%	100%

<50% 50-70% 71-85% 85-99% 100%

Progress achieved – Output 2.1

Activity	7th Period	8th Period
2.1.1. Provision of TA to countries for the development of replicable pilot EE and RE investment projects enhancing regional connectivity	95%	100%
2.1.2. Provision of TA to the CA countries in replicating and scaling up the pilot EE and RE investment projects in other CA countries	60%	100%
2.1.3. Establishing and co-ordinating regional and international contacts and exchanges among RE and EE stakeholders in the region and in the EU to replicate pilot projects	30%	90%
2.1.4. Supporting collection and dissemination of information for policy use on gender equality among different target groups	100%	100%
2.1.5. Organising meetings with stakeholders and IFIs on identified pilot projects with high replication potential	50%	90%
2.1.6. Furnishing ad hoc technical support to the EUD	80%	100%

<50% 50-70% 71-85% 85-99% 100%

Activity 1.1.1 Providing assistance in the development of regional and country-specific frameworks for gender and climate sensitive EE and RE policies (1)

- At the request of the Ministry of Energy of **Kazakhstan**
  - Assistance in the development and promotion of **the Law on Alternative Energy Sources** was provided, including:
    - Development of a concept for the transition from the Law “On Support for the Use of Renewable Energy Sources“, to the Law “On the Development of Alternative Energy“;
    - Development of regulatory mechanisms for electricity storage systems (ESS);
    - Preparation of more than 10 analytical briefs and references for the Ministry of Energy;
    - Preparation of a summary report (submitted in March 2026)

- Information and data on the development of geothermal energy in Kazakhstan were collected and analysed – a round table was held on 19 June 2025

Activity 1.1.1 Providing assistance in the development of regional and country-specific frameworks for gender and climate sensitive EE and RE policies (2)

- At the request of the Ministry of Energy **of Kyrgyzstan,** assistance was provided in:
  - Developing a **Draft bylaw on quality control of Energy Performance Certificates (EPC) of buildings**, which was submitted for Interinstitutional review and consultation at the end of 2025 and is currently in the final stage of Interinstitutional approval
  - Structuring **by-laws for energy service companies (ESCO)**
    - Four meetings of the Interinstitutional Working Group (IIWG) on ESCO and assessment of the quality of EPCs for buildings were held (September 11, 2025, September 18, 2025, December 3, 2025, February 10, 2026)

The following documents were presented at the fourth meeting of the IIWG:

- Temporary Regulations on the procedure for implementing a Pilot Project for the Provision of Energy Services in State Institutions of the Kyrgyz Republic (KR);
- Template of an Energy Performance Contract;
- Methodology for measuring and verifying energy savings;
- Justification for launching a pilot project at the initial stage as a practical alternative to immediate large-scale legislative reform of the ESCO framework in KR

Activity 1.1.1 Providing assistance in the development of regional and country-specific frameworks for gender and climate sensitive EE and RE policies (3)

- At the request of the Ministry of Energy and Water Resources **of Tajikistan,** assistance was provided in **preparing a number of proposals for the optimisation and regulation of e-mobility**
- In April 2025, the Government of the Republic of Tajikistan adopted a **Resolution** providing **for duty-free import of new (no more than one year old) electric vehicles** and no benefits for the used electric vehicles
- The Government of the Republic of Tajikistan recently adopted a **Resolution regulating activities in the electric vehicle sector, which includes licensing, obtaining permits, approvals and the submission of notifications**

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Activity 1.1.1 Providing assistance in the development of regional and country-specific frameworks for gender and climate sensitive EE and RE policies (4)

- At the request of the Ministry of Energy **of Turkmenistan**, assistance was provided in the development and promotion of the following regulatory acts:
  - **Safety regulations for the operation of electricity generation facilities** (approved on 2 May 2025)
  - **Guaranteed connection of renewable energy installations into the national power grid** (approved on 1 July 2025)
  - **Procedure for maintaining the state register of renewable energy sources (RES) and the use of its data** (approved on 1 August 2025)
  - **Instructions on reducing technical losses of electrical energy during transmission via the electricity networks of the Turkmenistan power system** (approved on 2 October 2025)
  - **Recommendations on the calculation and analysis of operational electricity losses during transmission via the power grids of the Turkmenistan power system** (approved in December 2025)
  - **Regulations on the re-labelling of major power plant equipment of the Ministry of Energy of Turkmenistan** (approved on 25 March 2026)
  - **Fire safety regulations for energy facilities in Turkmenistan** (approved on 25 March 2026)

Activity 1.1.1 Providing assistance in the development of regional and country-specific frameworks for gender and climate sensitive EE and RE policies (5)

- At the request of the Agency for Strategic Development and Reforms under the President of the Republic of **Uzbekistan,** the SECCA project has prepared:
  - **Draft government Resolution on Energy Service Companies (ESCOs)** – approved in October 2025
  - **Template of contract with ESCO**
  - **Measuring and verification methodology** to identify energy savings achieved

Activity 1.1.1 Providing assistance in the development of regional and country-specific frameworks for gender and climate sensitive EE and RE policies (6)

- Activities aimed at **integrating a gender perspective into energy policy:**
  - The project has published **an online report entitled "The Intersection of Gender and Energy: A Regional Review from Central Asia"** (in English)
  - **Roundtable** discussions on promoting **girls' education in STEM** (science, technology, engineering and mathematics) and their future careers in the energy sector
    - **Kazakhstan** – an off-site interactive event for senior pupils of the most energy-efficient school, Lyceum No. 59 in Astana (a visit to "Astana EXPO-2017" wind farm) (May 2025)
    - **Kyrgyzstan** – interactive event at the most energy-efficient school No. 65 in Bishkek (October 2025)
    - **Tajikistan** – Roundtable discussions on "Promoting girls' education in STEM and their future careers in the energy sector in the Republic of Tajikistan" were organised in six cities across Tajikistan (March 2025)
    - **Turkmenistan** – interactive events at the most energy-efficient school No. 28 in Mary and the State Energy Institute of Turkmenistan (SEIT) (September 2025)
    - **Uzbekistan** – an interactive event organised in partnership with the Polytechnic University of Turin and the most energy-efficient school No. 242 (October 2025)

Activity 1.1.5 Furnishing country-specific technical assistance related to the development, harmonization and enforcement of MEPS and labels for electrical appliances and buildings

- In close cooperation with national stakeholders, the SECCA project has prepared:
  - **National reports** on the current status of energy labelling for electrical appliances
  - **Recommendations** for the further development of energy labelling of electrical appliances in Central Asian countries
- **A regional conference on energy labelling of electrical appliances was held** (Tashkent, 21–22 October 2025)

- **Kazakhstan**
  - Collection and analysis of documentation for 30 buildings commissioned after 1 January 2023, with a particular focus on public sector buildings, such as schools
  - Determination of the energy efficiency classes for each building
  - Recommendations for the professional development of energy performance certificate issuers
  - **Technical workshops** on energy labelling of buildings and calculating optimal cost levels, for **over 200 representatives** of government bodies, affiliated organisations and expert organisations (**Astana**, **Almaty** and **online,** 22–29 April 2025)

Activity 1.1.6 Technical assistance in energy auditing for sustainable/climate-proof buildings and industry (1)

- **Kazakhstan** – In close cooperation with the Ministry of Industry and Construction and the Institute for the Development of the Electric Power and Energy Saving (EEDI):
  - **A new 10-step approach** was developed, aimed at more effective use of data from the State Energy Register and conducting an in-depth analysis of the most priority public sector facilities in terms of energy efficiency
  - A four-day **practical training course on conducting energy audits of** public buildings was held
  - **On-site energy surveys** were carried out at two state secondary schools in Astana – Schools No. 20 and No. 29

Activity 1.1.6 in energy auditing for sustainable/climate-proof buildings and industry (2)

- **Turkmenistan**
  - Technical recommendations for the design and construction phases of the new building of the State Energy Institute of Turkmenistan (SEIT)
  - Assessment of the sustainability of the new building
  - As part of the official opening ceremony (1 September 2025) of the new SEIT building, the awarding of “Green Certificates” in recognition of achievements in three key areas:
    - Energy efficiency and integration of renewable energy sources
    - Water conservation and rational use of water resources
    - Education and capacity building

Activity 1.1.7 Capacity building for energy efficiency and renewable energy

- **Tajikistan**
  - **Technical meetings** on e-mobility and solar water heating (12 November 2025)
- **Turkmenistan**
  - **International conference** ”International Experience in Advancing and Implementing Innovative Energy Efficiency and Renewable Energy Technologies in Residential and Public Buildings” (2 September 2025)
  - **Training workshop** “Development of Renewable Energy Sources in Turkmenistan: Features of Operation and Maintenance of Solar and Wind Power Plants in the Climatic Conditions of Turkmenistan” (3-4 September 2025)
  - **Training workshop** “Development of Renewable Energy Sources in Turkmenistan: Features of Integrating Solar and Wind Power Plants into Turkmenistan's Electric Power System” (19-20 November 2025)
  - **International conference** “International experience in the construction of buildings with near-zero energy consumption” (17 February 2026)

Activity 1.1.8 Provision of trainings for eligible institutions on effective participation in projects in the framework of Horizon Europe

- **A National Contact Point (NCP) coordinator for the Horizon Europe programme** has been appointed in **Tajikistan**
- The following have been organised:
  - ✓ **Regional Information Day on Cluster 5 of the Horizon Europe programme — Expanding scientific cooperation between the European Union and Central Asia under the Horizon Europe programme** (Almaty, 20 May 2025)
  - ✓ **Professional development workshop for NCPs** (Almaty, 21 May 2025)
- An extensive **database of research institutions in Central Asia** has been created and uploaded to **the GREENET platform**, the official network of National Contact Points (NCPs) for Cluster 5 of the Horizon Europe programme in the EU, to assist partners in finding participants for Cluster 5 of the Horizon Europe programme
- **A communication strategy** and **key performance indicators (KPIs)** have been developed **to monitor and evaluate progress**
- **Recommendations** have been prepared on further expanding the participation of Central Asian countries in the Horizon Europe programme

Activity 1.1.9 Organisation of EU-CA Country Sustainable Energy Days (1)

Sustainable Energy Days 2025 in Central Asian countries:

- The SECCA project reached over **100,000 people** (including via the project website, the media and social media)
- A number of regional and national events have been held

Regional events:

Media contest "Energy Transition for a Better Future"

- 128 participants
- 206 submissions
- ~40,000 reach

Award ceremony for the winners of the media contest (as part of EuroFest, Astana)

- ~1,000 guests
- ~15,000+ reach

Photo exhibition "EU - Central Asia: Faces of Sustainable Energy Development Cooperation" (EuroFest, Astana)

- 10,000 guests
- ~1,500 reach

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Activity 1.1.9 Organisation of EU-CA Country Sustainable Energy Days (2)

SEDs 2025 in Kazakhstan (May–June 2025):

- **STEM4Her –** a tour to “Astana EXPO-2017” wind farm and interactive activities for senior pupils from Astana’s most energy-efficient school, Lyceum No. 59
- In collaboration with the ECOJER association, organisation **of a panel session on climate innovation** as part of **the Astana International Forum 2025**
- Participation in the **EuroFest 2025** festival
- Opening **of the photo exhibition “**European Union – Central Asia: Faces of Sustainable Energy Development Cooperation” (as part of EuroFest 2025)

SEDs 2025 in Kyrgyzstan (October 2025):

- **STEM4Her** – an interactive event at the most energy-efficient School No. 65 in Bishkek
- **Official handover of** the Preliminary Feasibility Study for the ‘Karakol-1’ Small Hydropower Plant to the Green Energy Fund
- Honouring **the winner (1st place) of the** regional **media comnest –** Kyrgyz journalist Vlad Ushakov (photo.kg)
- Opening **of the photo exhibition “**European Union – Kyrgyzstan: Faces of Sustainable Energy Development Cooperation”

SEDs 2025 in Tajikistan (March and November 2025):

- **STEM4Her** – roundtable discussions in six cities across Tajikistan on STEM education for girls and women’s participation in the energy sector
- Opening **of the photo exhibition “**European Union – Tajikistan: Faces of Sustainable Energy Development Cooperation”
- **Tree-planting** campaign **on the grounds of** the “Novaya” substation in Dushanbe

Activity 1.1.9 Organisation of EU-CA Country Sustainable Energy Days (3)

EU-CA 2025 in Turkmenistan (September 2025)

- STEM4Her – an interactive event at the most energy-efficient School No. 28 in Mary for senior schoolgirls from the city and first-year students of the State Energy Institute of Turkmenistan (SEIT)
- Opening **of the photo exhibition** **“**European Union – Turkmenistan: Faces of Sustainable Energy Development Cooperation”
- **International conference** **“**Sustainable Energy – Energy of the Future”
- **Training seminar** for SEIT students: ‘Renewable Energy Development in Turkmenistan’

SEDs 2025 in Uzbekistan (October 2025)

- **STEM4Her** – an interactive event at the Turin Polytechnic University for senior schoolgirls from the most energy-efficient School No. 242 in Tashkent
- Honouring the winner (3rd place) of the regional **media competition** – Uzbek journalist **Doniyor Tukhsinov** (kun.uz)
- Opening **of the photo exhibition** **“**European Union – Uzbekistan: Faces of Sustainable Energy Development Cooperation”

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Activity 1.1.11. Providing assistance to CA countries in preparing for benefiting of opportunities provided by the Paris Agreement

Kazakhstan

- **Identification of projects to reduce greenhouse gas emissions**
- Assessment of the impact **of EU methane regulations on Kazakhstan's exports**
- **Roundtable on methane emissions regulation** (26 February 2026)

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Activity 1.2.3 Promoting EE and RE for further target groups through the production and online publication of short videos and short reports on good practices

The "Energiya Joly" podcast
https://www.youtube.com/@EnergiyaJoly

Topics:
- Key achievements in the field of sustainable energy and the energy transition
- EU energy policy and international best practices
- The interconnection between gender and energy

From March 2025 to March 2026, **17** episodes (including 2 in Kazakh)*;* **17** teasers, **85** short videos were released

Audience growth:
- Subscribers: **8,620** (March 2026) – an almost fourfold increase compared to 2,340 (March 2025)
- Views: **~440,000** (March 2026) – an **almost tenfold increase** compared to 44,209 (March 2025)

Podcast guests:
- Experts from Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and the EU

Project website and social media

Website https://secca.eu/ (reach of over **21,000 people**) – an effective bilingual digital platform (English/Russian) providing information on the project's activities, including the promotion of:
- Sustainable energy, EE and RES
- EU energy policy
- Best practices

Social media:
Facebook – reach of over **71,000 people** https://www.facebook.com/secca.eu)
X (https://x.com/seccaeu),
Instagram – reach: over **105,000 people** (https://instagram.com/secca.eu),
LinkedIn – reach of over **15,000 people** (https://www.linkedin.com/company/seccaeu)
- Prompt communication
- Audience engagement
- Communication about project initiatives, including the promotion of energy efficiency, renewable energy, and best international practices

SECCA Newsletter

The third issue of the newsletter has been published in English and Russian (September 2025)
The fourth issue of the newsletter is scheduled for release in English and Russian (late April 2026)

Contents of the issues:
- Technical assistance to beneficiary countries, including on the promotion of EE, RES and best practices
- Key project events and activities

Distribution:
- Project website (https://secca.eu/knowledge-hub/#newsletter)
- Project social media
- Email newsletter: **500+ contacts**

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Activity 1.3.3. Strengthening the accuracy of SDG7 reporting in the creation of future sustainable energy policies

The SECCA project has prepared:

- **Review, analysis and assessment of SDG 7 indicators**
  - ✓ 7.1.1. Proportion of the population with access to electricity (KZ: uninterrupted electricity supply in regions; KG: proportion of the population with stable access to electricity; TM: proportion of the population with access to electricity)
  - ✓ 7.1.2 Proportion of the population with access to clean fuels and technology (KZ: level of gas supply in the country; KG: not officially calculated or published)
  - ✓ 7.2.1 Renewable energy share in the total final energy consumption (KZ: share of renewable energy in total electricity generation; TM: under development)
  - ✓ 7.3.1 Energy intensity measured in terms of primary energy and GDP (KZ, KG: energy intensity of GDP; TM: energy efficiency of GDP)
  - ✓ 7.a.1 International financial flows to developing countries in support of clean energy research and development and renewable energy production, including combined cycle systems (KG, TM, UZ: not developed; TJ: under development)
  - ✓ 7.b.1 Energy infrastructure and clean energy technology investments (KZ: installed capacity of renewable energy facilities; TM, UZ: no official information available)
  - ✓ 7.b.1.1 Proportion of enterprises implementing energy efficiency systems (KG: not developed; TJ: under development; TM: CO_2 emissions from fuel combustion; UZ – no official information)
- **Recommendations** for improving reporting on SDG 7

Activity 1.3.5. Providing technical assistance for scenario analysis for different energy sub-sectors at regional and national levels by using modelling tools

- As part of the SECCA project, **a Regional Group on Modelling** has been established (comprising two young professionals from each beneficiary country)
- **Phase I** (September 2024 – February 2025): capacity building for the Regional Group
- **Phase II** began in July 2025 and was **based on a more targeted, country-specific, applied approach** to develop national energy sector models, improve systems thinking and support evidence- and data-driven decision-making in the energy and climate sectors
- Phase II included one training workshop and extensive practical work on the application of various modelling tools and methods
- **The results were presented at the final workshop** on energy modelling(Almaty, 4–5 February 2026).

Activity 2.1.1 Provision of TA to countries for the development of replicable pilot EE and RE investment projects enhancing regional connectivity (1)

The SECCA project developed **two pilot investment projects with replication potential**:

- **Project 1: Promoting the development of small hydropower** - case study for Kyrgyzstan. As part of this activity, a preliminary feasibility study for the construction of the “Karakol-1” small hydropower plant was carried out in 2024–2025. During the 7th period:
  - ✓ The analysis of the legal and regulatory framework applicable to the “Karakol-1” small hydropower plant (SHP) was revised in line with changes to the relevant regulations (April 2025)
  - ✓ The draft preliminary feasibility study (pre-FES) for the “Karakol-1” SHP was submitted to the Green Energy Fund under the Cabinet of Ministers of the Kyrgyz Republic (28 April 2025)
  - ✓ The pre-FEAS for the “Karakol-1” small hydropower plant was completed (August 2025)
  - ✓ The pre-FEAS for the “Karakol-1” small hydropower plant was officially submitted to the Green Energy Fund (14 October 2025)

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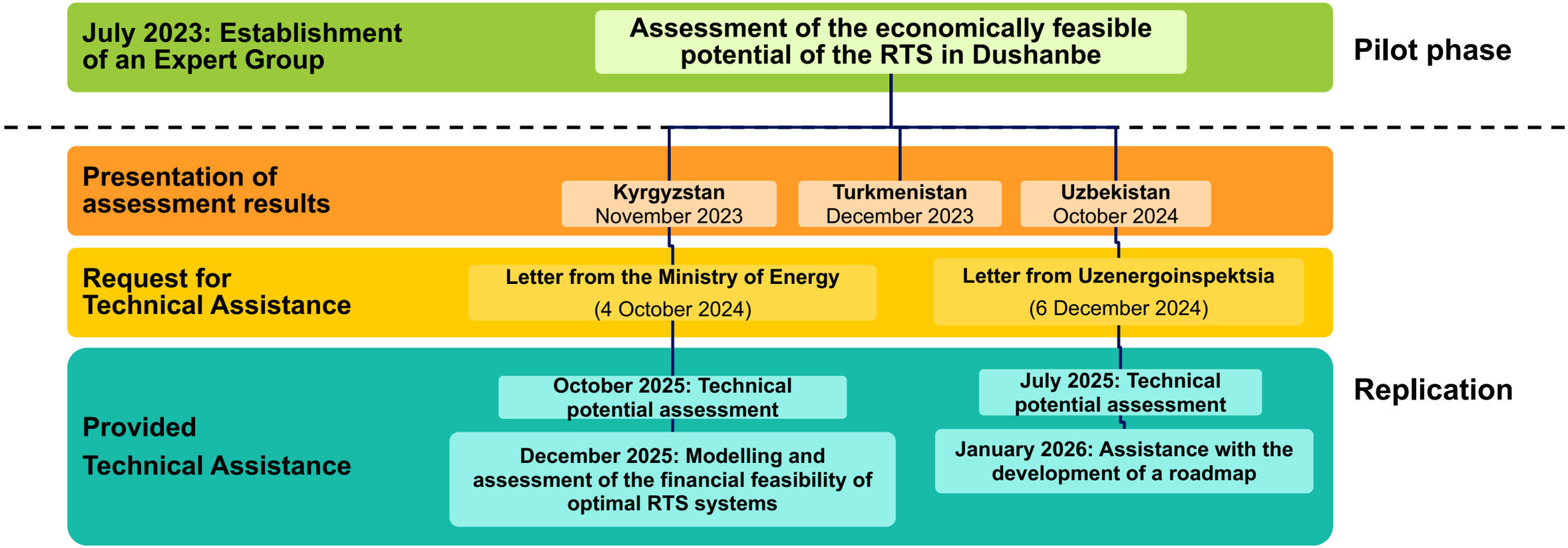
Activity 2.1.1 Provision of TA to countries for the development of replicable pilot EE and RE investment projects enhancing regional connectivity (2)

- **Project 2: Promoting the development of rooftop solar technologies** (solar photovoltaic systems and solar water heating technologies) – case study for Tajikistan
  - Work on rooftop solar photovoltaic systems (Rooftop Solar – RTS) in Tajikistan was completed in the previous period
  - Work on **solar water heaters** (SWH) included:
    - Forecasting energy demand for water heating
    - Assessment of investment requirements (up to 2040) across four scenarios
    - Financial analysis
    - Preparation of the report “Concept for the Development of Solar Water Heating in the Residential Sector of Tajikistan” (March 2026)

Activity 2.1.2 Provision of technical assistance to Central Asian countries to replicate and scale up the pilot energy efficiency and renewable energy investment projects in other Central Asian countries (1)

- The project on the development of rooftop solar PV systems (RTS), following its pilot phase in Tajikistan, was replicated in Kyrgyzstan and Uzbekistan



Activity 2.1.2 Provision of TA to the CA countries in replicating and scaling up the pilot EE and RE investment projects in other CA countries (2)

- **Technical workshops** were organised on various aspects of RTS development:
  - ✓ Technical workshop with Uzbekenergoinspectsia and Yashil Energiya LLC on assessing the potential for RTS in Uzbekistan (Tashkent, 3 July 2025)
  - ✓ Technical workshop on the development of RTS in Uzbekistan (Tashkent, 24 October 2025)
  - ✓ Technical workshop on the prospects for RTS development in Kyrgyzstan (Bishkek, 2 December 2026)

- The following **reports** were prepared:
  - ✓ Financing options for RTS in Tajikistan (July 2025)
  - ✓ Technical potential of RTS in Kyrgyzstan (October 2025)
  - ✓ Notes on the roadmap for increasing the use of solar potential in Uzbekistan given grid infrastructure constraints (October 2025)
  - ✓ Benefits of increasing solar energy use in Uzbekistan (December 2025)
  - ✓ Financial assessment of RTS in Kyrgyzstan (March 2026)

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Opportunities for strengthening project results and scaling up

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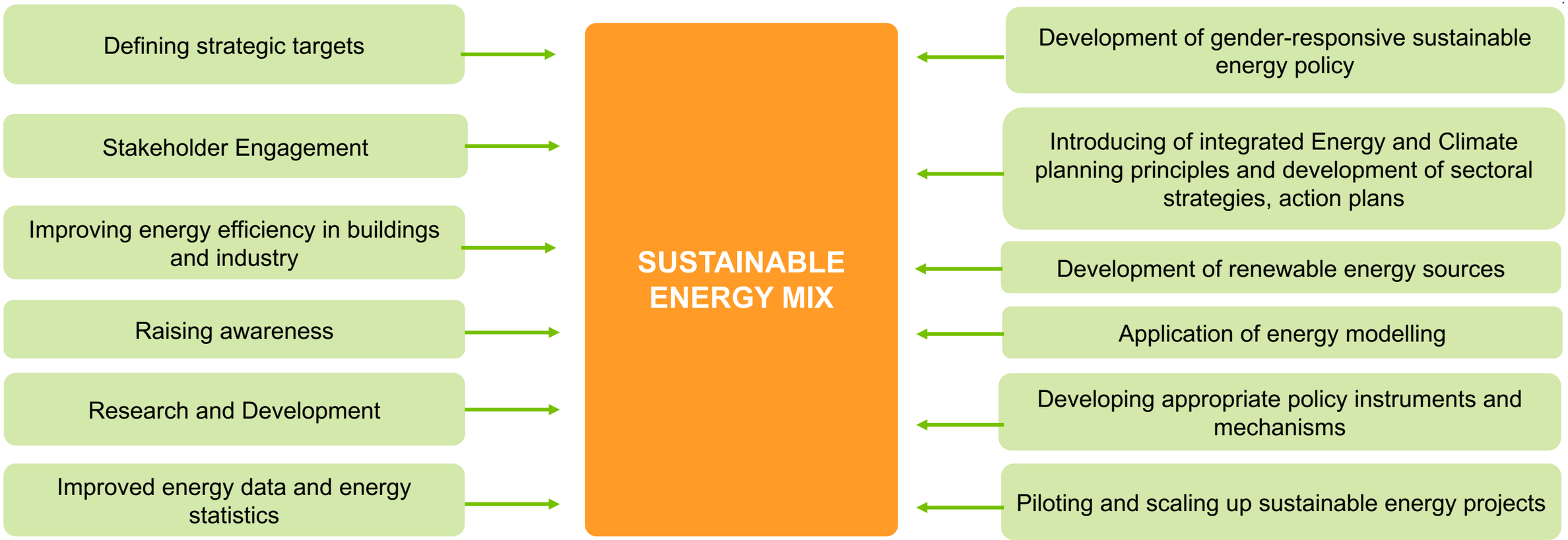
Project Overall Objective

- The activities of the SECCA project were aimed towards achieving an Overall Objective

Overall Objective:

to promote a more sustainable energy mix in the Central Asia region in line with EU best practices

SECCA approach to promote a more Sustainable Energy Mix in Central Asia (1)



SECCA approach to provide Technical Assistance aimed at Sustainable Energy Mix in the CA countries (2)

- Regional **energy connectivity** plays a critical role in enhancing national sustainable energy mixes
- Energy connectivity extends far beyond interconnected energy systems
- Its real value lies in **coordination: shared data, aligned assumptions, joint priorities, and the ability to act together across borders**
- True connectivity means **creating a common strategic language -** a language that allows countries not just to exchange energy but to **jointly build a sustainable future**
- **Modeling** plays a crucial role here: **not for prediction, but for making choices visible, comparable, and negotiable**
- Modelling transforms complexity into something that stakeholders can collectively understand and shape

- Based on the above principles SECCA provided Technical Assistance (TA) at **regional** and **national levels**
- TA activities at **regional level** were implemented **following agreement** with the beneficiary countries, while at **national level - at the request of** the beneficiary countries
- Steps taken included:
  - ✓ **Identification of areas for TA** - through consultations with the national government partner and key stakeholders
  - ✓ **Presentation of EU practices** as well as **opportunities for CA countries**
  - ✓ **The results of TA were discussed** with a wide range of stakeholders to ensure a high degree of ownership and the continuity of the activities undertaken

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SECCA approach to provide Technical Assistance aimed at Sustainable Energy Mix in the CA countries (3)

- The SECCA project identified the following **key factors** for the successful promotion of sustainable energy in Central Asia:
  - A systematic and holistic approach to integrated energy and climate analysis
  - Application of advanced (and affordable) technologies
  - Availability of technically, environmentally and economically feasible potential for renewable energy and energy efficiency, as well as financing opportunities

- Therefore, intensive technical assistance was provided in the following areas:
  - **Integrated energy and climate planning based on modeling**
  - Preparation for participation in the **Horizon Europe** (research and innovation) program
  - **Assessment of the technically, environmentally, and economically feasible potential of renewable energy systems,** as well as various financing schemes

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Integrated energy and climate planning based on modeling

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Integrated energy and climate planning based on modeling (1)

- **Integrated energy and climate planning** is one of the key instruments for promoting a sustainable energy mix
- **The role** of integrated energy and climate planning **has been highlighted** at many regional and national events (conferences, training sessions, etc.) **with the aim of explaining the overall concept to a wide range of stakeholders**
- In the EU, **quantitative analysis of energy and climate systems** is primarily driven by **advanced energy modelling**, which provides a virtual, data-driven "laboratory" for modelling, analysing and optimising complex energy systems
- Model-based integrated solutions for sustainable energy development and data-driven energy and climate decision-making **are not yet common practice in Central Asia**
- These new approaches for Central Asian countries, best practices, **examples and experiences of EU MSs and EC CPs were discussed in detail** with the SECCA modelling team and key stakeholders in each beneficiary country

Integrated energy and climate planning based on modeling (2)

For modelling, SECCA applied a **structured, stepwise approach**

- **Phase I: Capacity building** of the Regional Group on modelling and national stakeholders
  - **Fundamentals**: Establishing a **common methodological understanding and framework** and a **shared data foundation** - collecting, harmonizing, and analysing sector-level information
  - **A systems approach** that clearly captures the key factors and interdependencies that determine energy and climate outcomes

Phase II:

- **Scenario design**
  - **Exploring** different **combinations of policies, goals, and uncertainties** to understand possible pathways and trade-offs at the country level
- **Application of modelling tools**
  - Members of Regional modelling group developed their **own analytical tools**, applying newly acquired knowledge while embedding their understanding of national systems and strategic priorities
- **Testing national strategies** against a regional perspective to identify **opportunities for dialogue, alignment, and joint action**

Integrated energy and climate planning based on modeling (3)

- **Kazakhstan** (Assessing the Contribution of Renewable Energy Sources in Various Development Scenarios for Kazakhstan's Energy System)
  - 4 Scenarios
    - Scenario 1 - Baseline - Current Development Trajectory of Kazakhstan's Electricity Sector
    - Scenario 2 - Renewable Energy Target: 15% Share of Renewable Energy Sources in Electricity Generation by 2030
    - Scenario 3 - Introduction of Nuclear Power Plants (NPPs)
    - Scenario 4 - Achieving Net Zero Emissions by 2060

Integrated energy and climate planning based on modeling (4)

- **Kyrgyzstan** (Modeling Electricity Demand and Adequacy for the Kyrgyz Republic)
  - 2 Scenarios
    - Scenario 1 - Default Scenario - reflects the continuation of current structural trends
    - Scenario 2 - Measured Scenario - reflects the coordinated and phased implementation of measures to improve consumption efficiency, reduce grid losses, modernize and expand hydropower, and integrate solar photovoltaic and onshore wind power

Integrated energy and climate planning based on modeling (5)

- **Tajikistan** (Strengthening Tajikistan's electricity supply through improved energy efficiency)
  - 3 Scenarios
    - Scenario 1 - Based on forecasts from the Ministry of Economic Development and Trade
    - Scenario 2 - Based on forecasts from the Ministry of Industry and New Technologies
    - Scenario 3 - Developed by the Ministry of Energy and Water Resources based on actual aluminum production trends over the past nine years

Integrated energy and climate planning based on modeling (6)

- **Turkmenistan** (Study of structural features of electricity demand forecasts in Turkmenistan)
  - 3 Scenarios
    - Scenario 1 - Accelerated electrification of end-use sectors
    - Scenario 2 - Increased irrigation volumes using pumps in conditions of water shortage
    - Scenario 3 - Intensification of industrial development

Integrated energy and climate planning based on modeling (7)

- **Uzbekistan** (Scenario analysis of the balance of supply and demand in the electric power system of the Republic of Uzbekistan until 2040)
  - 6 Scenarios
    - Scenario 1 - baseline
    - Scenario 2 - simultaneously activates two demand-side measures: residential solar panels and electric vehicle transport demand
    - Scenario 3 - activates gas capacity expansion
    - Scenario 4 - activates large-scale renewable generation
    - Scenario 5 - activates all five measures simultaneously
    - Scenario 6 - all measures except additional imports

Integrated energy and climate planning based on modeling (8)

Conclusions

- The process, developed and applied across Central Asia, goes beyond technical modelling
- A **shared sense of regional connectivity** among CA countries **strengthened**, while **bridges with the EU** also was **built through aligned methodologies and continuous dialogue** on integrated energy and climate strategies
- At the core of this approach is the **democratization of strategic thinking** in the energy and climate sectors - expanding the circle of people capable of addressing complex policy issues, gaining access to common methods, and actively participating in decision-making

Recommendations

It is recommended that the practice of **integrated energy and climate analysis using modelling be continued** including in the framework of current and future EU and other donor-funded projects

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Preparing for participation in the Horizon Europe programme

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Preparing for participation in the Horizon Europe programme (1)

- **Horizon Europe** is the EU's research and innovation framework programme, with the largest funding volume (€95.5 billion for the period 2021 to 2027)
- The project **aimed** to assist Central Asian countries in creating prerequisites and building capacity for more active participation in research projects funded under the Horizon Europe programme
- The main objectives were**: institutionalization** (creation of a network of designated NCPs), which would ensure continued promotion of the programme beyond the project**; strengthening and developing the knowledge of designated NCPs** necessary for their continued independent functioning; **and promoting the programme and informing** the scientific community of Central Asian countries
- Through its activities the SECCA project **facilitated higher interest and engagement** from both relevant government agencies and the scientific community
- In Uzbekistan, Turkmenistan, and Tajikistan, with the project's support, **NCP networks were created** and developed not only in Cluster 5 but also in other programme areas. In all Central Asian countries, the supporting materials and activities were also useful for other thematic areas. In some countries, materials developed by the project were adapted by NCPs of other thematic clusters
- **Consequently, the project made a significant contribution to the advancement of not only Cluster 5 but also other thematic areas of the program**

Preparing for participation in the Horizon Europe programme (2)

Early 2024:
The Horizon Europe NCP system existed only in Kazakhstan (coordinator and thematic NCPs) and Kyrgyzstan (coordinator only)

With the support of the project:
The NCP system was established in other Central Asian countries and strengthened where it already existed

Important:
In countries without NCPs, SECCA supported the establishment not only of thematic NCPs (Cluster 5), but also of coordinators responsible for the entire system and the promotion of the programme

Indicator	May 2024	May 2025	November 2025
Total number of projects	36 (12 Horizon Europe)	43 (19 Horizon Europe)	49 (25 Horizon Europe)
Number of participating organizations	52	63	77
% Average success rate	11,11%	14%	15,3%
Funding	n/a	2,28 mln euros	2,58 mln euros

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Preparing for participation in the Horizon Europe programme (3)

Supporting NCPs and capacity building (Cluster 5)

- Following the establishment of the NCP system - focus on developing competencies
- Regional training (Almaty, May 2025) with the participation of European NCPs

1. Practical approach (“learning by doing”):

- Development of databases of research organisations (national and regional)
- Communication strategy and cooperation templates
- KPIs for monitoring NCP activities
- Individual consultations and mentoring support

2. International cooperation:

- Establishing links with GREENET (the international network of Cluster 5 NCPs) and NCPs from Europe (Poland, Iceland, Italy)
- Support for partner search
- Raising the region’s profile by disseminating the database within the GREENET network

3. Regional cooperation:

- Strengthening links between NCPs in Central Asia
- Exchange of experience and knowledge through joint events

Preparing for participation in the Horizon Europe programme (4)

Promotion of the Horizon Europe programme (Cluster 5)

- Organisation of national and regional information days and workshops (online/offline)
  - Eight regional and national seminars were held by SECCA experts with the participation of NCPs (a "learning by doing" approach)
- Providing information on the programme's opportunities, rules for participation and partner search
- Development of a template for more effective partner search

Results:

- The NCPs of Kazakhstan, Kyrgyzstan and Uzbekistan independently organise information days, including in regions outside the capital cities
- Enhanced sustainability of information support for the local scientific community
- The template is actively used not only by organisations working in the energy sector, but also by other organisations

Additionally:

- Introducing new NCPs to the scientific community
- Creation of a section on the SECCA website containing materials, presentations and NCP contacts

Preparing for participation in the Horizon Europe programme (5)

Key recommendations

- **Strengthening the NCP system and developing its capacity and sustainability:**
  - Developing **institutional memory, tools** (KPIs, databases) and support materials for less experienced NCPs, and integration into European thematic networks
  - Supporting **active international and regional cooperation** with NCPs in Europe and Central Asia
- **Promoting the Horizon Europe programme and its next phase (2028-2034):**
  - **Transition to regional and international formats** for information events (such as Info Days), and increased participation of colleagues and representatives of the EU research community
  - **Establishment of national online hubs** with comprehensive information on the programme and NCP contacts
- **Development of partnerships:**
  - **Increasing the region's visibility**, participating in international events, exchanging databases of scientific organisations' contacts with thematic European networks, supporting the organisation of international conferences and symposia involving representatives of the European scientific community in the countries of the region
- **Government support:**
  - Moving towards association with the future programme, particularly for countries with a strong track record of participation in the current programme

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Assessment of the technically and economically feasible potential of RTS, as well as various financing schemes

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Assessment of the technically and economically feasible potential of RTS, as well as various financing schemes for Tajikistan (1)

- Work to assess the potential of RTS for Tajikistan began in 2023
- RTS Potential in Dushanbe

Technical potential

311 МВт

Estimated generation

447 ГТВт·ч

Useful rooftop area

3.105 км2

Number of buildings

3880

Although the average tariff level in Tajikistan is below cost recovery level, there are **already certain segments (e.g. commercial buildings) where the implementation of RTS systems is financially feasible**

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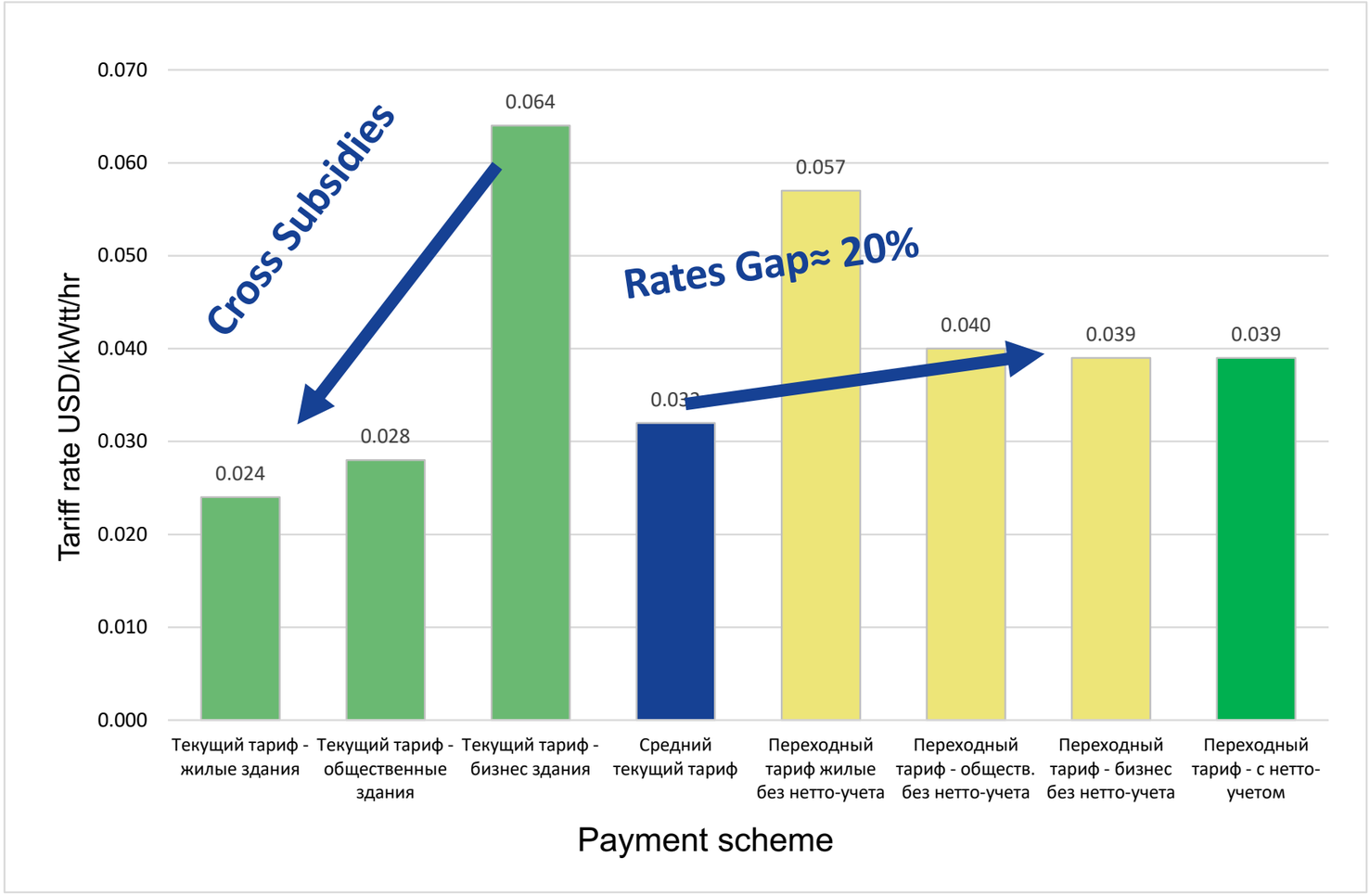
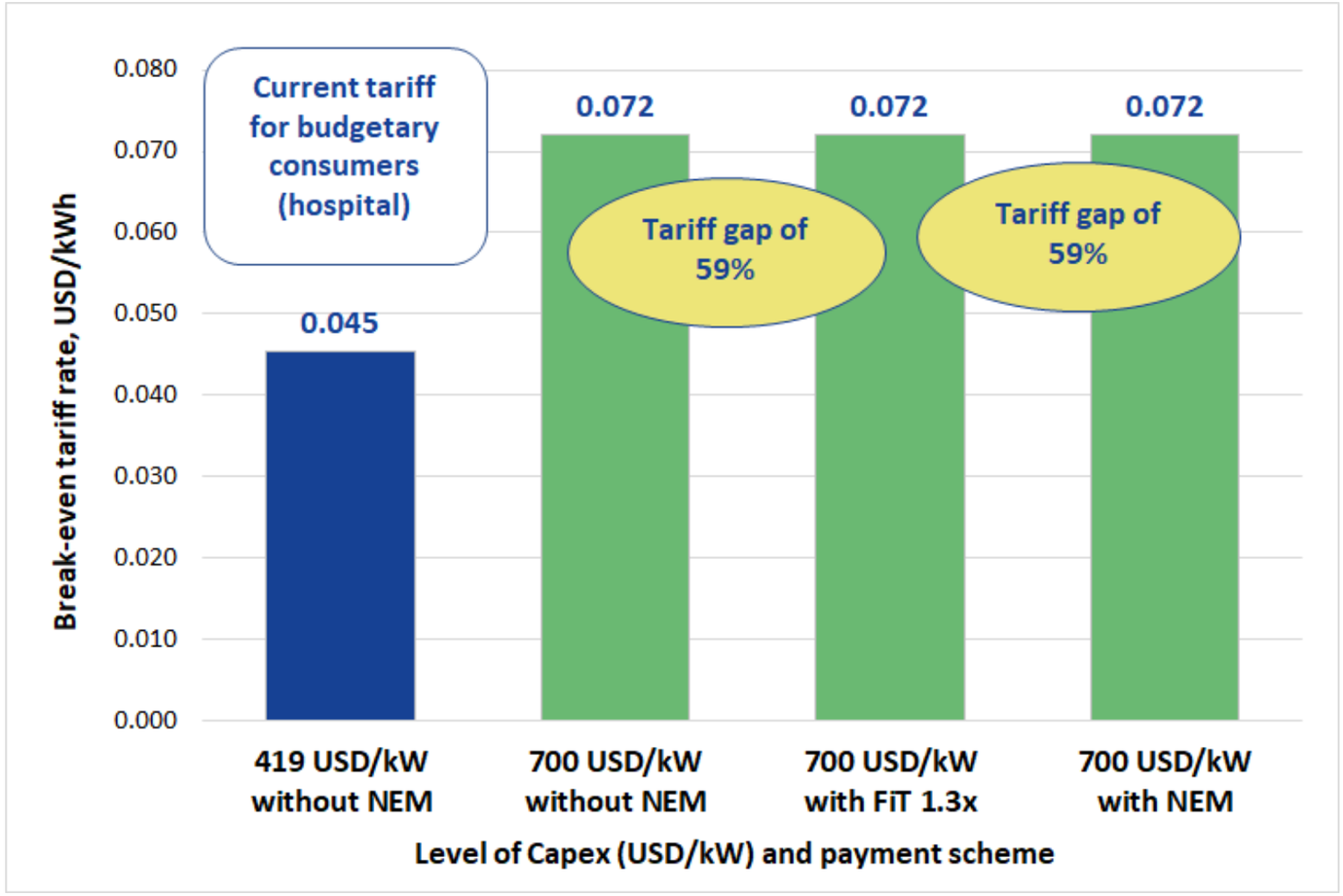
Assessment of the technically and economically feasible potential of RTS, as well as various financing schemes for Tajikistan (2)



Assessment of the technically and economically feasible potential of RTS, as well as various financing schemes for Tajikistan (3)

- **3 Financial models of financing have been considered:**
  - **Customer-Owned Business Model -** the RTS system is installed by customers at their own facilities primarily to meet their own needs
  - **RESCO Model -** the Renewable Energy Service Company (RESCO), acting as a third party, handles all activities from design to operation and finances the RTS system
  - **Utility-led Business Model** - the distribution utility designs, finances, operates, and maintains the RTS system

Assessment of the technically and economically feasible potential of RTS, as well as various financing schemes for Kyrgyzstan



Tariff gaps for consumers of budget funds - hospital

Optimistic point:

If capital costs are kept within the range of $400-420/kW, investments in RTS will begin to become financially justified even at the current tariff of $0.045/kWh for public and commercial consumers in Kyrgyzstan

Assessment of the technically and economically feasible potential of RTS for Uzbekistan (1)

Technical potential

76 ГВт

Estimated generation

69.4 ТВт·

Useful rooftop area

434.5 км2

Number of buildings

5 964 585

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Assessment of the technically and economically feasible potential of RTS for Uzbekistan (2)

Scope of analytical research:

- **Deployment capacity:** up to 6,000 MW of total solar PV capacity
  - 4,500 MW by 2030 (90% of the government's 5 GW solar target)
  - 1,500 MW by 2035
- **Analysis period:** 25 years (2026-2050) - corresponds to the service life of solar panels

Key assumptions:

- **Financing:** private investment
- **Share of own consumption:** 66.67%
- **Electricity tariff**
  - 6.15 cents/kWh – when purchasing from the grid
  - 7.69 cents/kWh – Fixed tariff for purchasing electricity from residents

Assessment of the technically and economically feasible potential of RTS for Uzbekistan (3)

For Public Sector:

- The public sector's NPV remains unchanged at $1,411 million across all scenarios. Reason: Public sector benefits are independent of the level of capital expenditures on RTS
- The analysis was conducted for the benefit-cost ratio (BCR) parameter. Reason: The government does not make capital investments in RTS

- For all scenarios:
  - BCR: 1.57 - indicates that every dollar of public sector spending generates benefits of $1.57
  - Total benefit (25 years): $10,653 million
  - Natural gas savings: 51,490 million m3
  - CO_2 emissions avoided: 95.3 million tons
  - Clean electricity generation: 183 billion kWh

Assessment of the technically and economically feasible potential of RTS, as well as various financing schemes in CA countries

Conclusions

- **In Central Asian countries, RTS can play a significant role in achieving green energy transition goals and ensuring energy security**
- Despite significant differences in electricity tariff levels across Central Asian countries, there are certain segments (e.g., commercial buildings) in all countries where **the implementation of RTS systems is financially feasible**
- **Financing schemes have not been developed** within the SECCA project (this would require additional resources, including temporary ones)

Recommendations

- It should be noted that capital expenditures per unit of RTS capacity has fluctuated dramatically over the past decade, and their future levels are difficult to predict. Therefore, **periodic updates of estimates of the economically feasible RTS potential** are recommended
- It is recommended that **financing schemes, including financial support mechanisms, be developed** including within the framework of current and future projects funded by the EU and other donors
- Financing schemes and/or financial support mechanisms should be discussed with International Financial Institutions and, where possible, piloted

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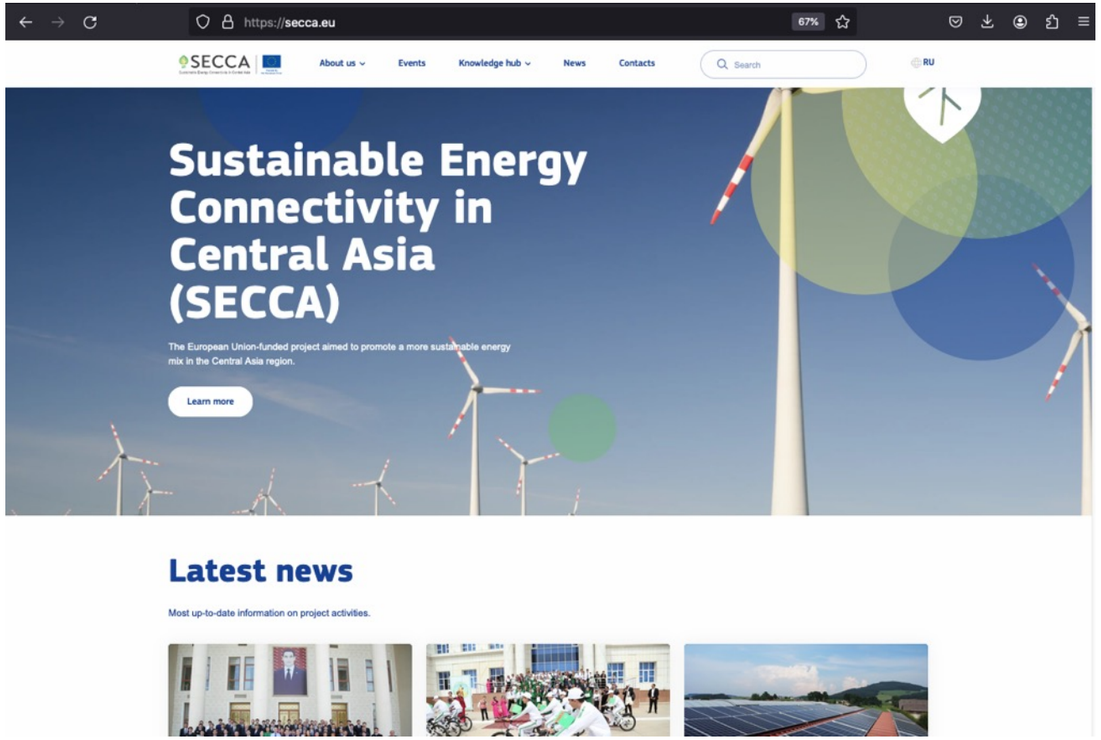

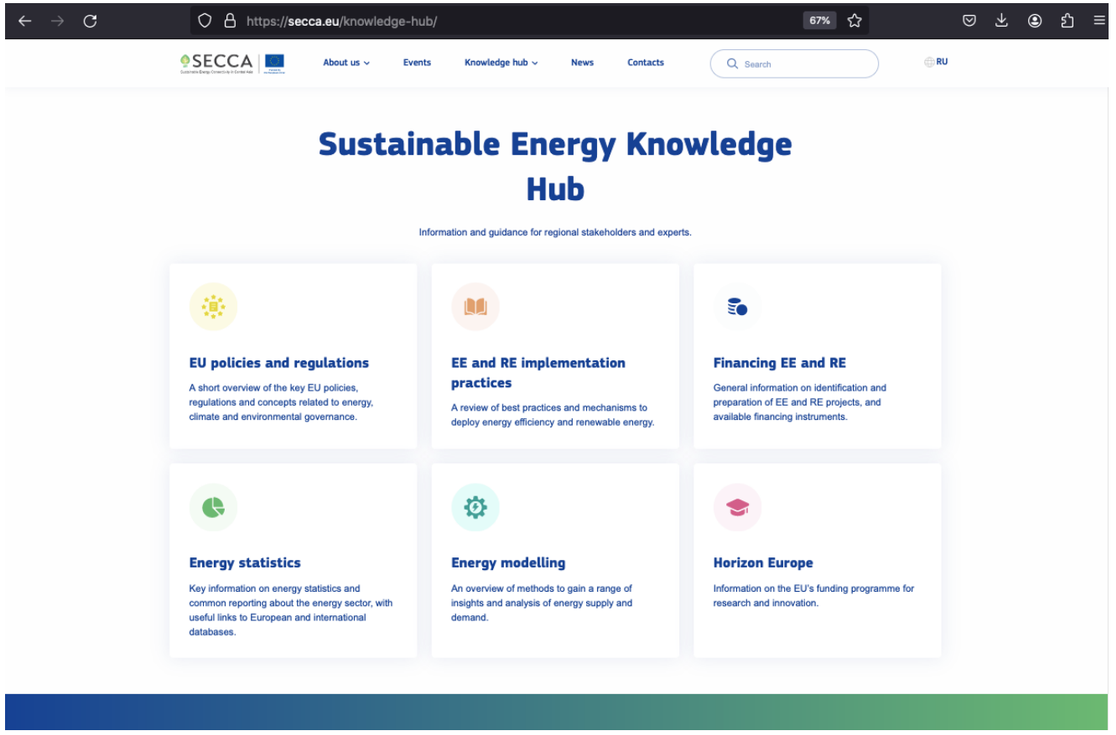

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