

Final Roundtable in THE REPUBLIC OF UZBEKISTAN

Crowne Plaza Tashkent

17 February 2026

SECCA project activities in the Republic of Uzbekistan: Results achieved

Paata Janelidze, Team leader, Key Expert in Energy Engineering

Ilze Purina, Key Expert in Energy Sector Governance

Gayrat Tashmatov, National Coordinator in the Republic of Uzbekistan

Sustainable Energy Connectivity in Central Asia (SECCA) project



Sustainable Energy Connectivity in Central Asia (SECCA):

EU-funded regional cooperation project between the European Union and its partner countries in Central Asia in the field of sustainable energy

Implementation period:

15 March 2022 - 31 May 2026

Partner countries:

Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan





Overall Objective:

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

Sustainable Energy Mix in the Republic of Uzbekistan





A more sustainable energy mix in the Republic of Uzbekistan (RUz) means:

- **Transition from over-reliance on natural gas and outdated thermal power plants to a diversified low-carbon system** that harnesses the vast potential of solar and wind energy
- **Improving Energy Efficiency (EE)**, which reduces overall demand, minimizes waste, reduces the carbon intensity of GDP, and allows to increase a share of renewable energy sources (RES) in energy consumption. EE strengthens energy security, reduces reliance on fossil fuels, and offers the most cost-effective and rapid path to decarbonization in the industrial and residential sectors
- **Power grid modernization** – upgrading transmission lines and substations that are over 30 years old
- **Implementation of energy storage solutions** – such as pumped-storage hydroelectric power plants and batteries to manage fluctuations in solar and wind power generation
- **Fostering regional energy cooperation**

*EE is so important in the world's journey to net zero, to keep global warming at 1.5 degrees Celsius, that it is nicknamed "**the first fuel**" by the International Energy Agency (IEA)*

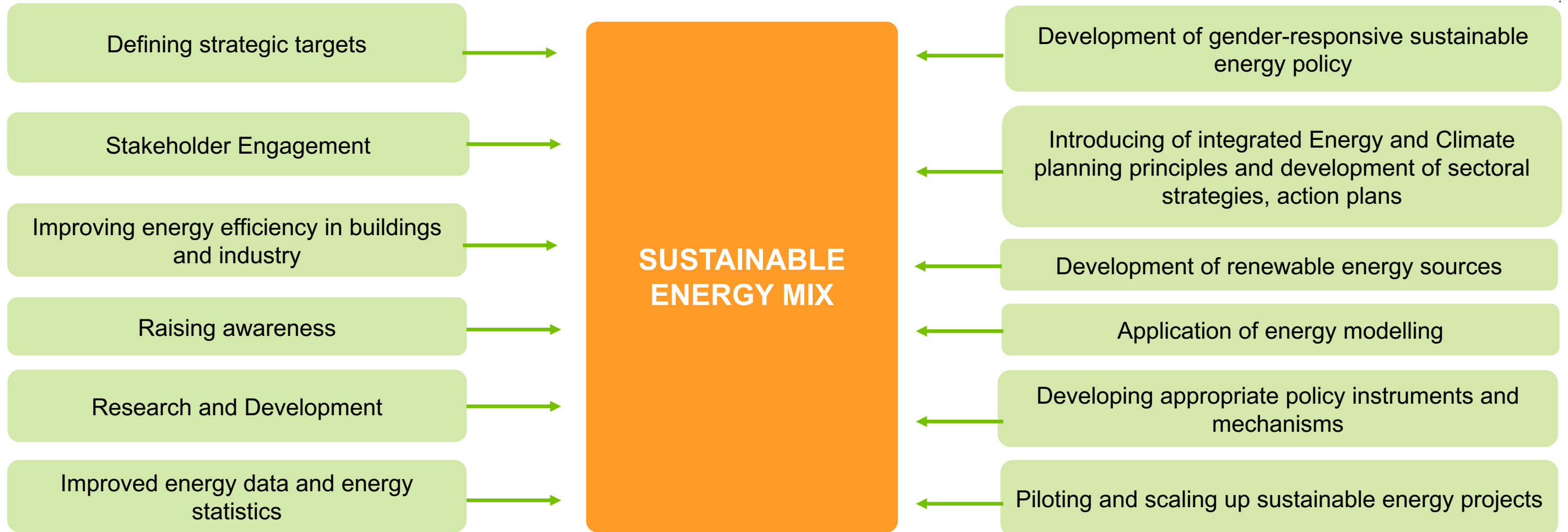


Benefits of a sustainable energy balance in the Republic of Uzbekistan:

- **Improved Energy Security** - Diversifying energy sources, reducing import dependence, and ensuring energy supply reliability
- **Reduced Dependence on Fossil Fuels, saving natural gas, and reducing harmful emissions** through increased domestic use of renewable energy sources and improved energy efficiency
- **Economic growth and Attraction of Investment:**
 - The development of green energy, including solar energy, contributes to the introduction of new technologies and attracts investment
 - Reducing the energy intensity of the economy increases overall competitiveness
- **Achieving the decarbonisation target - The Nationally Determined Contributions (NDCs) of the Republic of Uzbekistan, revised in November 2025, envisage achieving carbon neutrality by 2050**

SECCA approach to promote a more Sustainable Energy Mix in the Republic of Uzbekistan





TA provided by SECCA: General approach





- SECCA has provided Technical Assistance (TA) in promoting a more sustainable energy mix at Regional and National levels
- TA activities at the **Regional level** were implemented **after agreement** with the Beneficiary Countries
- TA activities at the **National level** were implemented **upon request** of the Beneficiary Countries
- Steps taken by SECCA to identify and implement TA activities:
 - **Areas for technical assistance** were **identified** on the basis of consultations with the national government partner (**Agency for Strategic Development and Reforms under the President of the Republic of Uzbekistan**) and key stakeholders
 - In the absence of information on the most relevant EU developments in the identified area, experts from EU Member States (MS) and/or Contracting Parties to the Energy Community (EC PC) were invited as speakers to SECCA project events (regional and national conferences, technical seminars, round tables, etc.) and **presented EU practices and opportunities for Central Asian countries in these specific areas**
 - After the events, if the beneficiary country expressed interest, **technical terms of reference** were developed and contracts were concluded with non-key experts (NKEs)
 - **Proposed approaches/draft documents and results were presented and discussed** with a wide range of relevant national stakeholders to ensure a high degree of ownership and continuity of the activities initiated

TA provided by SECCA: Regional Activities



Regional Activities: Energy Modelling

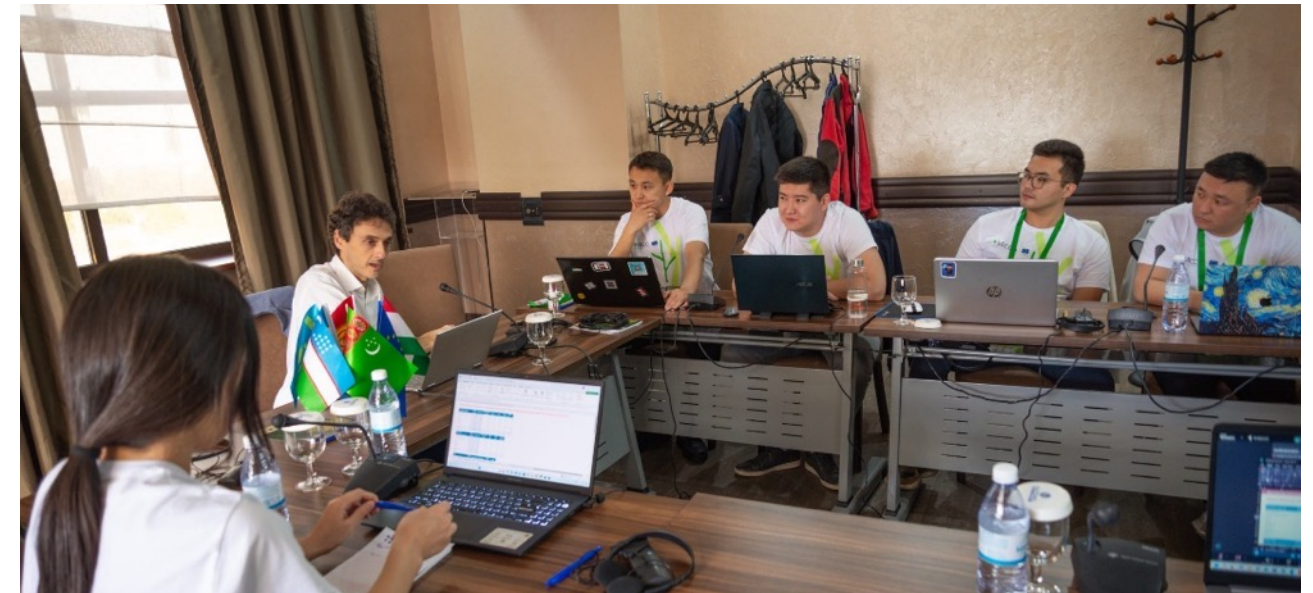




- **Integrated energy and climate planning** is one of the key instruments for promoting a sustainable energy balance
- **The role** of integrated energy and climate planning **has been highlighted** at many regional and national events (conferences, training sessions, etc.) **with the aim of explaining the overall concept to a wide range of stakeholders**
- In the EU, **quantitative analysis of energy and climate systems is based on 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 and EEA member states were discussed in detail** with the SECCA modelling project team and key stakeholders in each beneficiary country

- As part of the SECCA project, a **Regional Modelling Group** has been established, comprising two young specialists from each beneficiary country, including **Uzbekistan**
 - **Cooperation with relevant national stakeholders established**
 - A two-phase work plan for the Regional Group on Modelling developed and implemented
- Phase I** (September 2024 – February 2025): **Capacity development** of the Regional Group on Modelling through 3 training workshops
- On “fundamentals” of energy and climate strategic planning and modelling analyses and aimed to provide a common understanding of the energy and climate issues and of some good practices
 - On selection/collection/elaboration/utilization of energy

- (and non-energy) statistics and data for quantitative analyses
- On technical practices for quantitative modelling analysis and their links with the preparation of strategic documents and integrated plans



- **Phase II** began in July 2025 and was **based on a more targeted, country-specific, applied approach**, while continuing to strengthen the capacity of Central Asian countries to develop national energy sector models, improve systems thinking at the local level, and promote knowledge- 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 a final workshop** (Almaty, 4-5 February 2026)



Regional Activities: Energy statistics



In Uzbekistan, SECCA worked closely with:

- **The National Committee of the Republic of Uzbekistan on Statistics**

SECCA organised:

- **Training on formation of the energy balance, calculation of EE indicator in Uzbekistan** (Tashkent, 10 July 2023)
- **Regional Workshop on Final Energy Consumption Statistics** (Tashkent, 11-13 July 2023)

SECCA prepared:

- **Recommendations** for improving reporting on SDG7

Regional Activities: Energy labelling



In Uzbekistan, SECCA worked closely with:

- **The Uzbek Agency for Technical Regulation (Uzstandard) of the Republic of Uzbekistan**
- **The State Institution "Uzbek Centre for Scientific Testing and Quality Control"**

SECCA organised:

- **Regional Conference on Energy Labelling** (Tashkent, 21-22 October 2025)

In close cooperation with the national stakeholders, SECCA prepared:

- **Country reports** on the current status of energy labelling
- **Recommendations** for the further development of energy labelling in CA countries



Regional Activities: Horizon Europe





The largest program of the EU in science and innovation

OBJECTIVES:

Support scientific and technological research, innovation and sustainable development in the EU and beyond



BUDGET AND IMPLEMENTATION PERIODS:

- € 95.5 billion for 2021-2027
- € 175 billion for 2028-2034



- Activities under the SECCA Horizon Europe (HE) component began in May 2024 – at that time, **HE National Contact Points (NCPs) coordinators** were established in **Kazakhstan** and **Kyrgyzstan**
- In less than 2 years:
 - ✓ **NCP coordinators** nominated in **Tajikistan, Turkmenistan, and Uzbekistan**
 - ✓ **NCP for Cluster 5** nominated in **Kazakhstan, Kyrgyzstan, and Uzbekistan**, and is being discussed in **Turkmenistan**
- This clearly demonstrates **the will and commitment of the CA countries** to enhance Research and Innovation (R&I) cooperation with the EU under the HE program





- SECCA has developed a **template for research organisations** to highlight their key capacities, research interests, and areas of expertise in a structured manner
- The template was **distributed to relevant research organizations** in Kazakhstan, Kyrgyzstan, Turkmenistan, and **Uzbekistan**
- **Filled-in templates were received** in Kazakhstan, Kyrgyzstan, Turkmenistan, and **Uzbekistan**
- A comprehensive **database of Central Asian research institutions** has been created and uploaded on the **GREENET platform** – an official network of the HE Cluster 5 NCPs in the EU – to support partner searches for participation in Cluster 5 of the HE programme



In Kazakhstan, Kyrgyzstan, Turkmenistan, **Uzbekistan**:

- **Database of institutions** interested in participation in the HE program developed
- **Overview of profiles of research institutions** interested in participation in the HE program, **including priority areas for cooperation**, prepared
- **Communication strategy** developed
- **Key performance indicators (KPIs) to monitor and measure progress** developed
- **Recommendations** for further enhancing the participation of countries of CA in the HE program drafted



In the Republic of Uzbekistan, SECCA worked closely with:

- **The National Contact Point (NCP) for Horizon Europe and the NCP for Cluster 5 of Horizon Europe**
- **The Ministry of Higher Education, Science and Innovation**
- **The Academy of Sciences**

SECCA organised:

- **Regional workshop “Horizon Europe in Central Asia: Promoting Research Excellence and Collaboration for Sustainable Energy” (Almaty, 14 May 2024)**
- **HE Cluster 5 Regional Info Day - Enhancing EU-Central Asia Research Collaboration in HE (Almaty, 20 May 2025)**
- **Professional Development workshop for HE NCPs (Almaty, 21 May 2025)**



Regional Activities: Gender in Energy



- **Gender equality and social inclusion (GESI)** represent one of the focuses of the SECCA activities
- SECCA conducted five **national GESI assessments** for CA countries, focussing on:
 - ✓ The policy dimension of the gender and energy nexus
 - ✓ Access to electricity and clean cooking fuels
 - ✓ Girls in science, technology, engineering and mathematics (STEM) education
 - ✓ Women’s employment in the energy sector
- The analysis showed that GESI is a challenge in CA, especially in the energy sector, in which fewer women are involved
- The results of the national GESI assessments have been presented at the Regional Conference “Gender and Energy in Central Asia” (Almaty, 17-18 October 2024)
- To address GESI-related challenge, **STEM4Her** events, as part of Sustainable Energy Days (SEDs) 2025 campaigns, were conducted in CA countries, including **Uzbekistan**





Podcast
promoting
sustainable
energy
“Energiya Joly”

Podcast ENERGIYA JOLY

ЭНЕРГЕТИКА УЗБЕКИСТАНА –
КУРС НА УСТОЙЧИВОСТЬ



- “**Energiya Joly**” **Podcast**, launched by SECCA in October 2024, explores the path to sustainable energy in Central Asia
- To date **21 video podcast episodes** were produced on various EE and RE related topics
- Among them Episode 12, “**Uzbekistan's Energy Sector: A Course Towards Sustainability,**” features an in-depth discussion with Muzaffarjan Hakimov, advisor to the head of the Uzbekistan Energy Inspectorate. The episode examines the transformation of Uzbekistan's energy sector, large-scale renewable energy projects, tariff reform, state policy in the field of EE and other related issues
- As of February 2026, a dedicated podcast channel on YouTube <https://www.youtube.com/@EnergiyaJoly> has
 - **6 750+** subscribes
 - around **350 000** views

Regional contests



Global Gateway  Финансирование Европейского Союза

Региональный конкурс среди журналистов Энергетический переход для лучшего будущего

Организатор: Проект Европейского Союза «Устойчивые энергетические связи в Центральной Азии (SECCA)»




КОНКУРС
Европейского Союза
“Reels4SustainableEnergy”

СОЗДАЙ видео Reels в Инстаграм
и ВЫИГРАЙ учебную поездку в Европу!

Срок: до 19 мая 2023 г.

 **SECCA**
УСТОЙЧИВЫЕ ЭНЕРГЕТИЧЕСКИЕ СВЯЗИ В ЦЕНТРАЛЬНОЙ АЗИИ

 Funded by the European Union

- In 2023, SECCA organised a **Regional contest #Reels4SustainableEnergy** among **university students, young researchers and young professionals** in the field of sustainable energy
- A total of **67 reels from across the region** were posted on Instagram, and **six winners** of reels contest were awarded prizes (Astana, 2 June 2023)



- **Competition start** date: 14 April 2025
- **Participants:** journalists from print and online media, television and radio in Central Asia
- **Publication/broadcast period:** 15 April 2024 to 14 May 2025, on sustainable energy issues
- A total of **128 journalists from all Central Asian countries** took part in the competition and submitted **206 entries**.
- The award ceremony took place on 1 June 2025 during EuroFest2025 in Astana, Kazakhstan. Among the winners:
 - **Third place: Doniyor Tukhsinov, Uzbekistan**, journalist at **Kun.uz**, for the online article: "Green goals: How can Uzbekistan prepare its youth for a clean economy?"
 - Special recognition from the competition jury: **Aizada Amangeldieva, Uzbekistan**, for her online interview "Karakalpak princesses: would you marry a woman working in the energy sector?"



Regional Photo Exhibition

The EU – CA: Faces of Sustainable Energy Development Cooperation

Nabijon Kholov Uzbekistan

"Together, we are building a sustainable future where clean energy is accessible to all."

Nabijon Kholov is a senior specialist at the Agency for Innovative Development under the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan and the National Contact Point for the European Union's Horizon Europe research and innovation programme in Uzbekistan. He works to establish strong partnerships between universities in Uzbekistan, the EU and neighbouring Central Asian countries, actively promoting scientific cooperation and research in sustainable development.

Nabijon contributes to the development of Uzbekistan's scientific potential. He organizes training sessions and consultations for scientists and students, inspiring them to conduct research in key areas such as climate and sustainable energy. Together with the EU-funded project "Sustainable Energy Connectivity in Central Asia (SECCA)", Nabijon organizes informational events about the Horizon Europe programme, highlighting the opportunities and funding it offers to Uzbek scientists and researchers. He also coordinates educational and innovation programmes, integrating green energy topics into higher education, which, in the long term, contributes to the training of qualified personnel and the development of new projects in the energy sector.

Nabijon's efforts benefit not only the scientific community but also the society of Uzbekistan as a whole, including vulnerable groups who gain information about and access to cleaner, more affordable energy.

Набижон Холов Узбекистан

«Вместе мы строим устойчивое будущее, где чистая энергия доступна каждому».

Набижон Холов – главный специалист в Управлении развития научной и инновационной деятельности Министерства высшего образования, науки и инноваций Республики Узбекистан и национальное контактное лицо программы Европейского Союза (ЕС) в области исследований и инноваций «Горизонт Европа» в Узбекистане. Он работает над установлением прочных партнерских отношений между вузами Узбекистана, ЕС и соседних стран Центральной Азии, активно способствуя научному сотрудничеству и исследованиям в сфере устойчивого развития.

В своей деятельности Набижон способствует развитию научного потенциала Узбекистана. Он организует тренинги и консультации для ученых и студентов, вдохновляя их на исследования в актуальных областях, таких как климат и устойчивая энергетика. Вместе с проектом ЕС «Устойчивые энергетические связи в Центральной Азии (SECCA)» Набижон организует информационные мероприятия о программе «Горизонт Европа», возможностях и финансировании, которые она предоставляет для узбекских ученых и исследователей. Он также координирует образовательные и инновационные программы, интегрируя тематику «зеленой» энергетики в высшее образование, что в долгосрочной перспективе содействует подготовке квалифицированных кадров и появлению новых проектов в энергетике.

Усилия Набижона приносят пользу не только научному сообществу, но и обществу Узбекистана в целом, включая уязвимые группы, которые получают информацию о и доступ к более чистой и доступной энергии.

The European Union – Central Asia: Faces of Sustainable Energy Development Cooperation



Фотограф: Хусниддин Ато / Photographer: Husniddin Ato



- **Opening:** 1 June 2025 at the EuroFest festival, Astana
- **Featuring:** 38 inspiring portraits of scientists, engineers, entrepreneurs, politicians and educators from Central Asia who are promoting sustainable energy
- **Objective:** To raise public awareness of EU-Central Asia cooperation in the field of energy sector development, motivating people to contribute to the transition to a greener, cleaner and more sustainable energy sector for a better future for all
- **Regional coverage:** As part of the 3rd EU-Central Asia: Sustainable Energy Days (SEDs) campaign, the exhibition visited Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and **Uzbekistan**
- **Uzbek edition:** presented at the SEDs in Tashkent, on 23 October 2025



Regional Activities: Study Tours





The Netherlands: "Renewable energy – modern solutions"

- **When:** November 2022
- **Organisers:** WECOOP and SECCA projects
- **Participants:** 8 journalists from Kazakhstan, Kyrgyzstan and **Uzbekistan**, winners of the EU regional media competitions in 2020 and 2022
- **Main topics for discussion:**
 - EU and Dutch renewable energy policy
 - Wind energy, bioenergy and green hydrogen production





Georgia: ‘Sustainable energy in practice: Georgia’s success and EU best practices’

- **When:** November 2023
- **Participants:** 16 high-level government officials and energy experts from all five Central Asian countries
- **Objective:** To study Georgia's successful energy sector reforms, which are in line with EU policy and Energy Community standards
- **Exchange of knowledge and information on the following topics:**
 - Legal and regulatory framework for sustainable energy
 - Integrated energy and climate planning
 - Energy efficiency in buildings and industry
 - Project development and implementation
 - Green investments and renewable energy auctions
 - Regional energy networks





Latvia: "Promotion of Energy Efficiency – Latvian experience"

- **When:** 27 November to 1 December 2023
- **Participants:**
 - Winners of the #Reels4SustainableEnergy and best sustainable energy mural design competitions
 - Representatives of energy-efficient schools from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and **Uzbekistan**
- **Main topics for discussion:**
 - Successful practices for improving energy efficiency in the public and private sectors in Latvia
 - Development of renewable energy sources



TA provided by SECCA:

National-level Activities in Uzbekistan:

Policy, regulatory and institutional framework for the transition to a sustainable energy system



- SECCA collaborated closely with:
 - **The Agency for Strategic Development and Reforms under the President of the Republic of Uzbekistan**
 - **The Reconstruction and Development Fund of the Republic of Uzbekistan**
 - **The Energy Sector Control Inspectorate (Uzenergoinspektsiya) of the Republic of Uzbekistan**
- The SECCA project organised:
 - **Regional technical seminar "ESCO – from theory to practical implementation"** (Tashkent, 26 June 2024)
- In close cooperation with national stakeholders, SECCA prepared:
 - **Draft government resolution** on energy service companies (ESCOs) – approved in October 2025
 - **Model contract with ESCO**
 - **Monitoring and verification methodology** for determining energy savings achieved

EU– Uzbekistan: Sustainable Energy Days



Events within the framework of SEDs 2023:

- **International conference "Energy Efficiency in Uzbekistan: Prospects and Challenges"** (June 2023, Tashkent)
 - Organised in close cooperation with the Agency for Strategic Development and Reforms under the President of the Republic of Uzbekistan
 - More than 100 people participated in the conference
 - Objective: to provide a practical platform for sharing experiences in the implementation of EE policies
- Award ceremony for **the most energy-efficient school** (October 2023, Tashkent)
 - State School No. 242 in Tashkent



Events within the framework of SEDs 2024 in Samarkand:

- **Award ceremony for the most energy-efficient school: Samarkand Secondary School No. 9**
 - Organised in close cooperation with the Ministry of Preschool and School Education of the Republic of Uzbekistan
- **Introductory lecture and quiz for schoolchildren**
 - Raising awareness of the link between energy and climate
 - Developing skills for the efficient use of natural and energy resources

Events within the framework of SEDs 2024 in Tashkent:

- Lectures and debates on sustainable energy for students and teachers from five universities
 - Organised in close partnership with: the Ministry of Higher Education, Science and Innovation and the Agency for Strategic Development and Reforms under the President of the Republic of Uzbekistan



Events within the framework of SEDs 2025:

- **STEM4Her** – an interactive event designed to spark interest in STEM subjects among young students, especially girls
 - Organised in partnership with the Polytechnic University of Turin and School No. 242
 - Participants: approximately 30 high school girls
 - Tour of the university's modern facilities and laboratories
 - Participation in an interactive session with successful female professionals
 - Testing participants' knowledge in an exciting quiz
- Congratulations to the winner of **the EU regional media competition "Energy Transition for a Better Future"** – **Donier Tukhsinov** (3rd place)
- Opening of **the photo exhibition "European Union - Uzbekistan: Faces of Sustainable Energy Development Cooperation"**

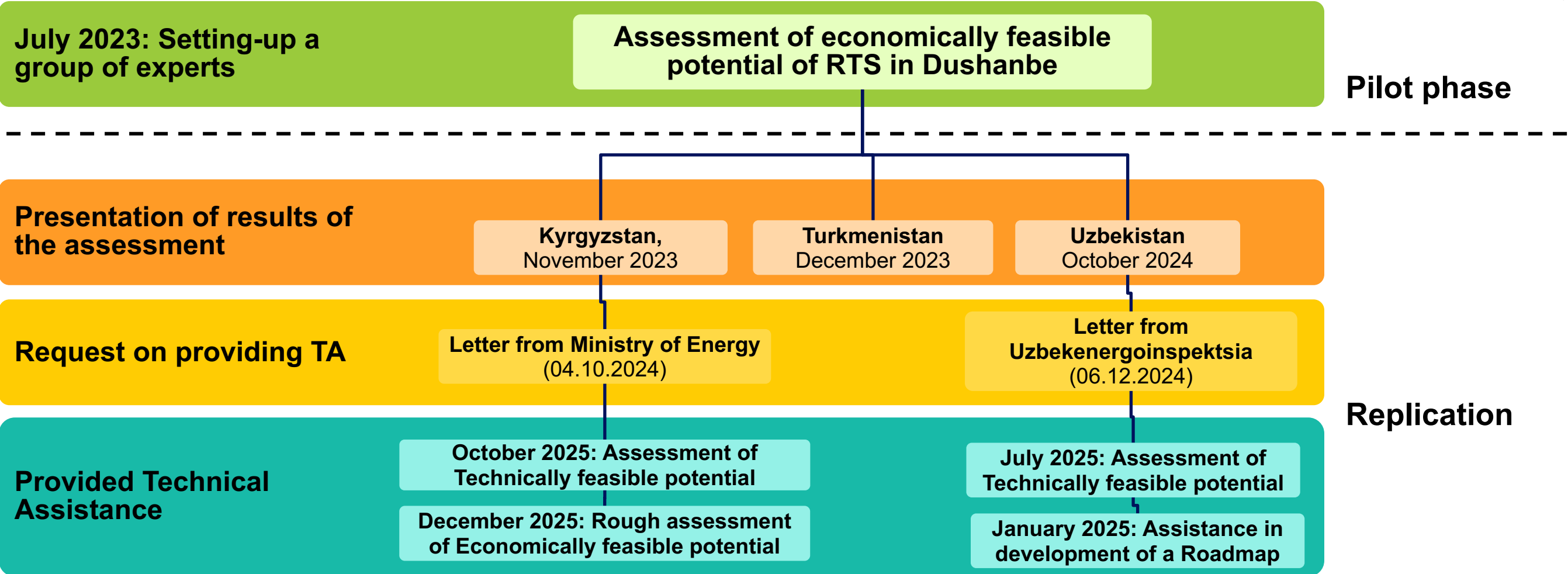


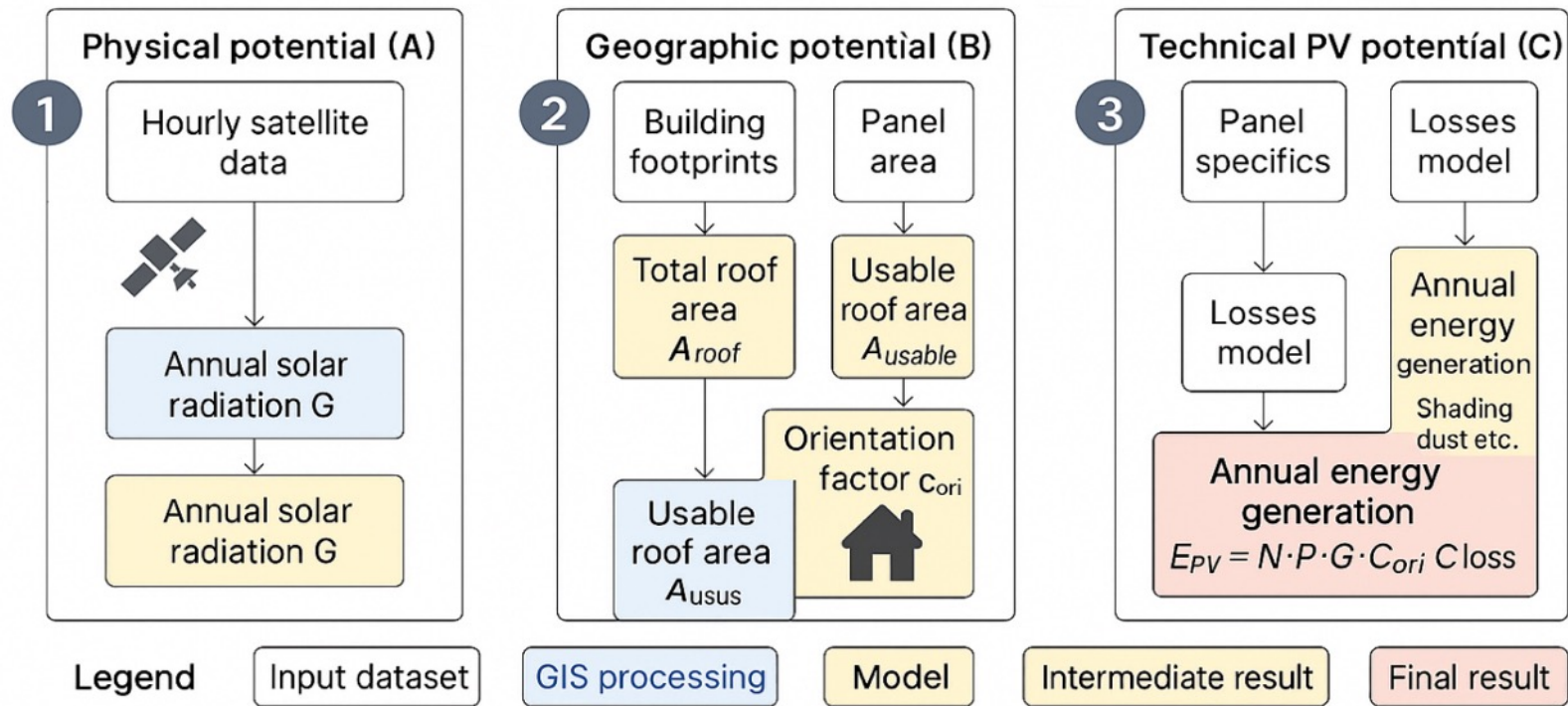
TA provided by SECCA:

National-level activities in Uzbekistan:

Promotion and facilitation of investment, capacity and awareness in Sustainable Energy







Stages and elements of assessing the technical potential of RTS



Technical potential

76 GW



Estimated generation

69.4 TWh



Useful roof area

434.5 km²



Number of buildings

5 964 585

Compared to the annual electricity production in Uzbekistan (74 TWh in 2024), **RTS represent significant potential**

Scope of analytical research:

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

Key assumptions:

- **Financing:** through private investment
- **Share of own consumption:** 66.67%
- **Electricity tariff**
 - 6.15 cents/kWh – when purchased from the grid
 - 7.69 cents/kWh – fixed tariff for electricity purchased from citizens



Private sector	Public sector
Revenues	
Electricity sold to the grid (33.33% of generation)	Natural gas savings: RTS replaces electricity generation at gas-fired power plants
Avoidance of electricity purchases (66.67% of generation)	Carbon credits from avoided CO ₂ emissions
Tax benefits (exemption from land and property tax)	Saved natural gas can be processed into more valuable liquid fuel
Expenses	
CAPEX	Purchase of electricity from RTS owners at a preferential rate
OpEx	Loss of revenue due to tax exemptions for RTS owners



For the private sector, the analysis was conducted for three capital expenditure (CAPEX) scenarios

Optimistic scenario

**Capital expenditure:
\$325/kW**

Reflects IRENA price forecasts for 2029 and favourable market conditions

Financial parameters:

Net present value (NPV): \$1,870 million

Internal rate of return (IRR): 46.5%

Assessment: Very attractive

Base case

**Capital costs:
\$450/kW**

SECCA expert assessment reflecting current regional market prices

Financial parameters:

NPV: \$1,438 million

IRR: 31.8%

Assessment: Attractive

Pessimistic scenario

**Capital costs:
\$850/kW**

Takes into account risks of supply chain disruptions, trade barriers and potential stagnation

Financial parameters for private investment:

NPV: \$55 million

IRR: 15.4%

Assessment: Marginal viability



For the public sector:

- The NPV for the public sector remains unchanged at US\$1,411 million in all scenarios. Reason: the benefits for the public sector do not depend on the level of capital expenditure 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 spent by the public sector generates benefits of \$1.57
 - Total benefit (25 years): \$10,653 million
 - Natural gas savings: 51,490 million m³
 - CO₂ emissions avoided: 95.3 million tonnes
 - Generation of environmentally friendly electricity: 183 billion kWh



Latest news and events

www.secca.eu

