



CAREC ENERGY SECTOR
PROGRESS REPORT AND WORK PLAN
JULY 2021-AUGUST 2022

Reference Document
Virtual Senior Officials' Meeting
Central Asia Regional Economic Cooperation
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CAREC Energy Sector: Progress Report and Work Plan

I. Executive Summary

The CAREC Energy Program completed phase 1 of implementing the CAREC Energy Strategy 2030 during the reporting period covered by this report. This puts CAREC Energy fully on track to achieve its vision of a reliable, sustainable, resilient and reformed energy market by 2030. Overall, CAREC Energy was transformed into an ambitious, results-driven and visible program with more partners joining the program than ever.

- **Energy Strategy implementation: Phase 1 successfully completed**

In April 2022, the Energy Sector Coordinating Committee (ESCC) successfully completed all strategic deliverables of its 2020-2022 workplan and thus completed the first phase of implementing the CAREC Energy Strategy 2030. More precisely, the ESCC endorsed a plan to establish a CAREC Green Energy Alliance to be the region's 1st targeted financing vehicle for green energy projects. The Committee also launched a 24/7 tool for policy makers – the CAREC Energy Reform Atlas – which aims to support decision makers in resolving the typical dilemmas when implementing energy sector reform. The ESCC also laid the foundation for a new Regional Transmission Cooperation Association (CATCA) as a body to establish regional grid enhancement plans and execute future cross-border projects. Another 2030 flagship deliverable – the CAREC Energy Outlook 2030 – was endorsed and will be officially published at the end of 2022 to attract much needed investment. All CAREC members and development partners also endorsed the first CAREC Women-in-Energy Program which includes an action plan targeted at improving employability, visibility and education of women in the energy sector.

- **New flagship conferences designed and conducted**

Two flagship conferences were conducted during the reporting period: (i) The 2021 CAREC Energy Investment Forum (EIF) which was re-launched in a new format and emerged as the region's flagship event to enable private investments in the energy sector. The 2021 Forum discussed business opportunities in the field of energy efficiency to support CAREC members in doubling energy efficiency until 2030. The Forum also hosted an Energy Efficiency Competition presenting innovative energy saving solutions from young start-ups in the region; and (ii) The 1st CAREC Women in Energy Summit held in March 2022 which celebrated the launch of the 1st CAREC Women-in-Energy Program. This is the first targeted CAREC Energy initiative to advance women in the regional energy sector making the principles of equal opportunity, equal pay, and equal leadership the modus operandi by 2030. The event also offered live coaching sessions for participants and access to membership in international Women-in-Energy Networks.

- **New partnerships formed and visibility boosted**

The high amount of quality results delivered during the past 2 years and the program's increased visibility through the new CAREC Energy web platform (www.carecenergy.org) led new organizations/development partners to express significant interest in the program. A number of new organizations have now joined the ESCC and are supporting the implementation of the CAREC deliverables.



II. Key Developments and Results

a. Sector Implementation

As part of the 2030 strategic framework of the CAREC Program, long-term goals for the Energy Sector were identified and integrated in the CAREC 2030 Program Results Framework (see table 1).

The overarching goal in the energy sector is to achieve improved regional energy security and enhanced deployment of green energy until 2030. To this end, a number of flagship cross-border electricity interconnection projects (TUTAP, TAP and CASA-1000)⁵ as well as gas interconnection projects (TAPI)⁶ shall be made operational by 2030 to boost regional energy trade and improve overall energy security in the region.⁷ At the same time, CAREC members shall also be able to benefit from a new and innovative financing vehicle that will facilitate implementation of green energy projects, particularly energy efficiency and renewable energy projects, for a cleaner energy sector by 2030. To this end, energy consumer awareness campaigns shall be regularly held to inform and sensitize domestic consumers as well as businesses on energy efficient behavior. Table 1 summarizes the progress made during the reporting period as per the overall CAREC 2030 Program Results Framework.

Table 1: CAREC 2030 Program Results Framework – Progress in the Energy Sector (2021-2022)

Sector Outcomes & Outputs by 2030	Indicator	2017 Baseline	Progress		
			2020	2021	2022
Enhanced regional energy security and deployment of green energy in the energy sector of CAREC countries	% renewable energy in CAREC countries	<1% renewable energy in CAREC countries	6% renewable energy in CAREC countries	6% renewable energy in CAREC countries*	<i>Data will be available by end 2022</i>
Output 1: Increased regional energy trade through implementation of the TUTAP, TAP, and CASA-1000 electricity interconnection projects and the TAPI gas pipeline project	TUTAP, TAP, and CASA-1000 electricity interconnection projects and the TAPI gas pipeline project operational	0 project operational	TUTAP partially operational	TUTAP and other projects' progress impacted by situation in Afghanistan**	<i>Data will be available by end 2022</i>
Output 2: Financing vehicle for green energy projects developed and consumer awareness for energy efficiency strengthened	# of donor organizations providing finance to new CAREC green energy alliance and # of regional energy efficiency consumer campaigns held throughout the region	0 donor organizations providing finance to new CAREC green energy alliance	0 donor organizations providing finance to new CAREC green energy alliance	0 donor organizations providing finance to new CAREC green energy alliance	3 organizations expressed support for CAREC Green Energy Alliance***
		0 regional energy efficiency	0 regional energy	1 regional energy	1 regional energy

⁵ CASA = Central Asia-South Asia, TAP = Turkmenistan-Afghanistan-Pakistan, TAPI = Turkmenistan-Afghanistan-Pakistan-India, TUTAP = Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan.

⁶ TAPI = Turkmenistan-Afghanistan-Pakistan-India

⁷ ADB placed on hold its assistance in Afghanistan effective 15 August 2021. (ADB Statement on Afghanistan published on November 10, 2021: <https://www.adb.org/news/adb-statement-afghanistan>). This impacted progress of regional interconnection projects during the reporting period covered by this report.



Sector Outcomes & Outputs by 2030	Indicator	2017 Baseline	Progress		
			2020	2021	2022
		consumer campaigns held		efficiency consumer campaigns held	efficiency consumer campaign held ^Δ

* share of variable renewable energy sources (solar PV and wind) - Source: IRENA (2022), Renewable capacity statistics 2022. International Renewable Energy Agency (IRENA), Abu Dhabi

** Progress of regional interconnection projects are impacted as ADB placed on hold its assistance in Afghanistan effective 15 August 2021. ADB Statement on Afghanistan published on November 10, 2021: <https://www.adb.org/news/adb-statement-afghanistan>

*** EBRD, IsDB and UNECE (as expressed at 32nd ESCC meeting, April 2022)

Δ CAREC launches first region-wide energy efficiency campaign: <https://carecenergy.org/carec-first-region-wide-energy-efficiency-campaign/>

b. Implementation Progress by Priority Area

The CAREC Energy Strategy 2030⁸, adopted on 14 November 2019 at the CAREC Ministerial Conference in Tashkent, remains the key guiding document for all CAREC energy activities. It rests on the overarching principle of “Common Borders. Common Solutions. Common Energy Future.”, and aims at achieving a reliable, resilient, sustainable and reformed energy market in the CAREC region by 2030.

To achieve the goals of the CAREC Energy Strategy 2030, the following three strategic pillars were identified:

- Strategy Pillar 1: Better Energy Security through Regional Interconnections
- Strategy Pillar 2: Scaled-Up Investments through Market-Oriented Reforms
- Strategy Pillar 3: Enhancing Sustainability by Greening the Regional Energy System

To support the above priority areas, the following three cross-cutting themes also form integral part of the CAREC Energy Strategy 2030's focus:



- Cross Cutting Theme 1: Building Knowledge and Forming Partnerships
- Cross Cutting Theme 2: Attracting Private Sector Investments across the Energy Value Chain
- Cross Cutting Theme 3: Empowering Women in Energy

Under all strategy pillars and cross-cutting themes, a list of deliverables was agreed as as part of the CAREC Energy 2030 work plan. The following table shows all actions to be implemented between 2020 and 2030 and the progress made to date.

⁸ Asian Development Bank (ADB). [CAREC Energy Strategy 2030](#). Manila.



Table 2: Energy Sector Progress by Priority Area (2021/2022)

 Strategy Pillar 1: Better Energy Security through Regional Interconnections (progress from 10% in 2021 to 40% 2022)			
40%			
Action	Description	Performance Indicators	Progress
Realize TUTAP, TAP, and CASA-1000 electricity interconnection projects	The CAREC region’s flagship power transmission line projects connecting Central and South Asia are at various stages of implementation and shall go into operation within the strategy period.	TUTAP, TAP, and CASA-1000 projects in operation	In progress
Advance TAPI gas pipeline project	Ongoing negotiations for possible modalities to realize the TAPI gas pipeline shall be accelerated.	Dialogue on the implementation of TAPI project intensified	In progress
Facilitate cooperation among regional transmission system operators (TSOs)	Growing electricity and gas interconnections require increased cooperation among TSOs. The establishment of a corresponding platform for regional network development planning, identification of projects of common interest, and information sharing shall be facilitated by this activity.	Central Asia Transmission Cooperation Association (CATCA) concept developed	Completed (April 2022) https://carecenergy.org/foundation-laid-for-new-regional-transmission-body-catca/
Identify new cross-border infrastructure projects	New cross-border gas and electricity links shall be identified to increase energy security in the region.	New regional gas and/or power interconnections identified	In progress
 Strategy Pillar 2: Scaled-Up Investments through Market-Oriented Reforms (progress from 50% in 2021 to 80% 2022)			
80%			
Action	Description	Performance Indicators	Progress
Build capacity for unbundling models and liberalization of energy markets	This activity shall support policy makers in making informed decisions when embarking on unbundling and market liberalization reforms.	CAREC Energy Reform Atlas (containing access to practical handbooks and database with study materials) established	Completed (April 2022) https://atlas.carecenergy.org/ https://atlas.carecenergy.org/home-utk/
Advise on tariff-setting principles and methods of introducing tariff reform	Financial health of network companies is critical to ensuring high quality of service. This activity shall shed light on tariff design options and ways of implementing gradual tariff reform.	Handbook on Tariff Principles and Reform Options published Capacity building workshops held	Completed (April 2022) https://atlas.carecenergy.org/home-trf/
Develop options for social protection measures for	This activity shall assist in elaborating options for social protection measures to accompany tariff reform and shall include the development of a	CAREC Guide to Social Protection and	Completed (April 2022) https://atlas.carecenergy.org/home-vct/



vulnerable energy consumers	definition for “vulnerable consumers” to assist policy makers in identifying the appropriate target group.	Energy Sector Reform published	
Share international best practices in legal enforcement of sector reform	Sector reform requires adapting existing energy laws and creating new laws. This activity is aimed at discussing successful examples of relevant sector laws and methods of law enforcement.	Capacity building workshops held	Upcoming


 **Strategy Pillar 3: Enhancing Sustainability by Greening the Regional Energy System**
(progress from 15% in 2021 to 70% 2022)



Action	Description	Performance Indicators	Progress
Establish a joint platform for mobilizing sources of funding for emission reduction projects	For emission reduction projects to be realized, a dedicated platform shall be established for identifying and securing funding for priority projects.	CAREC Green Energy Alliance established	In progress <i>A concept defining the role, structure and functioning of the CAREC Green Energy Alliance was endorsed by ESCC in April 2022</i>
Identify suitable energy efficiency measures and track progress	Energy efficiency is a powerful tool for reducing emissions. The aim of this activity is to disseminate practical skills in implementing efficiency measures and establish a regional benchmarking tool for comparing progress and rewarding high performers.	CAREC Energy Efficiency Week held Regional Energy Efficiency Scorecard developed Capacity building workshops held	Upcoming
Create public awareness of energy efficiency	This activity shall enhance public awareness of energy efficiency and empower consumers to engage in more conscious use of energy.	CAREC Consumer Leaflet on Energy Saving prepared Energy efficiency radio or TV commercial developed Handbook for organizing consumer awareness campaigns published	Completed (June 2021) https://carecenergy.org/care-c-first-region-wide-energy-efficiency-campaign/ Completed (June 2021) https://carecenergy.org/care-c-first-region-wide-energy-efficiency-campaign/ Upcoming



<p>Support in the development of renewable energy and the diversification of the energy mix</p>	<p>This activity is aimed at supporting CAREC members in adding renewable energy to their energy mix by providing practical guidance on the necessary pre-requisites.</p>	<p>Workshop on pros and cons of different renewable incentive schemes held</p> <p>Coping mechanisms for renewable energy intermittency developed</p> <p>Manual on legislative requirements for the integration of renewable energy prepared</p> <p>Role of gas as a transition fuel discussed</p>	<p>Upcoming</p> <p>Completed (August 2020) https://carecenergy.org/carec-finds-cooperation-on-renewable-energy-to-save-millions-of-dollars/</p> <p>Completed (August 2020) https://carecenergy.org/carec-finds-cooperation-on-renewable-energy-to-save-millions-of-dollars/</p> <p>Upcoming</p>
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 **Strategy Pillar 3: Enhancing Sustainability by Greening the Regional Energy System**
 (progress from 5% in 2021 to 50% 2022)

50%

Action	Description	Performance Indicators	Progress
<p>Develop CAREC Energy Outlook and Investment Report</p>	<p>This activity is aimed at providing investors and other relevant stakeholders with reliable regional data to make investment and policy decisions.</p>	<p>CAREC Energy Outlook and Investment Report published</p>	<p>Completed (May 2022) <i>ESCC approved the Outlook in April 2022. It is currently layouted for publication in Q4 2022</i></p>
<p>Establish relevant partnerships to support the implementation of the three strategy pillars</p>	<p>All three strategy pillars include capacity building, institution-building, and training initiatives, which shall be implemented in collaboration with experienced partner organizations.</p> <p>The CAREC program shall facilitate cross-regional networking and skills development of next-generation energy professionals to allow a natural sense for regional cooperation to emerge among the target group.</p>	<p>Partnerships with global centers of excellence in the fields covered by the strategy established</p> <p>CAREC Young Energy Leaders initiative established</p>	<p>In progress <i>UNECE, UNDP, Energy Chater, ERRA and EFSD are some of the new organizations that joined ESCC activities between 2020-2022</i> https://carecenergy.org/partners/</p> <p>Upcoming</p>

 **Cross Cutting Theme 2: Attracting Private Sector Investments across the Energy Value Chain**
 (progress from 0% in 2021 to 50% 2022)



50%			
Action	Description	Performance Indicators	Progress
Prepare a regional investment strategy	A regional investment strategy containing recommendations for improved enabling conditions for private investments in the CAREC region shall be developed.	CAREC Energy Investment Strategy developed	Upcoming
Hold annual CAREC Energy Investment Forum	The annual Energy Investment Forum shall continue to attract investors to the region and foresee a dedicated space for B2B meetings.	CAREC Energy Investment Forum held yearly	Completed (Dec 2021) https://carec-eif.org/ <i>next EIF is tentatively envisaged in Q4 2022</i>
Provide practical support to investors to enhance their business operations in the region	This activity shall create improved enabling conditions for private investors operating in the region.	CAREC Business Advisory Council created to identify needs of private investors	Upcoming



Cross Cutting Theme 3: Empowering Women in Energy
(progress from 10% in 2021 to 60% 2022)

60%			
Action	Description	Performance Indicators	Progress
Establish CAREC Women in Energy Program	This activity shall provide women in the CAREC region with the necessary tools to boost their career, build a regional network, and become more visible in the region's energy sector.	Women in Energy Summit organized	Completed (March 2022) https://women-energy-summit.org/
		Secondment program for women in energy established	Upcoming
		Educational scholarship program for women in energy facilitated	Upcoming



c. New Flagship Conferences and Meetings conducted

Two flagship conferences were conducted during the reporting period:

- **The 2021 CAREC Energy Investment Forum (EIF) – “Investing in Energy Efficiency”** was re-launched in a new virtual format and is emerging as the region’s new flagship event to enable private investments in the energy sector. The 2021 Forum discussed business opportunities in the field of energy efficiency to support CAREC members in doubling energy efficiency until 2030. The Forum also hosted an Energy Efficiency Start-Up Competition presenting innovative energy saving solutions from young start-ups in the region. The Forum was co-hosted by ADB and the Government of Azerbaijan (holding the CAREC Presidency 2021). ADB’s Vice President Shixin Chen and Azerbaijan’s Energy Minister Parviz Shahbazov opened the forum urging that energy efficiency is one of the most potent tools to decarbonize the energy sector in Central Asia and will be paramount in achieving the global climate targets. ADB’s Director General Suzanne Gaboury closed the forum highlighting the pivotal role of the private sector in delivering the required energy efficiency investments and stressed that relevant technologies are already widely available to reduce energy intensity in the CAREC region. The highlights and recording of the full event can be found here: <https://carec-eif.org/>
- **The 1st CAREC Women in Energy Summit – “Equal by 2030 – Time for Change”** was held in March 2022 and celebrated the launch of the 1st CAREC Women-in-Energy Program. The program is the first targeted initiative to advance women in the regional energy sector making the principles of equal opportunity, equal pay, and equal leadership the modus operandi by 2030. The event also offered live coaching sessions for participants and access to membership in international Women-in-Energy Networks. The Summit was opened by ADB Director Joonho Hwang reaffirming that gender equality is a top priority across all ADB activities. ADB Director Lyaziza Sabyrova stressed in her closing remarks that the rise of new jobs due to the global climate agenda is a once-in-a-lifetime opportunity to increase women employment in the sector. The Summit was also attended by Ms. Damilola Ogunbiyi, CEO of SE4all and the Deputy Ministers of Tajikistan and Georgia. The highlights and recording of the full event can be found here: <https://women-energy-summit.org/>

The following working groups were established and successfully launched at the start of 2021 and conducted regular meetings during the reporting period:

- Work Stream 1 (WS 1): Infrastructure Connectivity and Energy Security
- Work Stream 2 (WS 2): Policy Reform and Liberalization
- Work Stream 3 (WS 3): Energy Efficiency and Diversification of the Energy Mix

These work streams directly cover the scope of strategy pillars 1, 2, and 3 and focus on producing their respective deliverables (see Table 2).

Similarly, individual task forces for each of the three crosscutting themes were successfully established and conducted regular meetings during the reporting period:

- Task Force A (TF-A) on Knowledge Products, Partnerships, and People’s Networks
- Task Force B (TF-B) on Private Sector Enhancement
- Task Force C (TF-C) on Women Empowerment



The working groups and task forces are each led by 1-2 CAREC members. This is a key novelty in the Program and allows CAREC members to directly lead the strategy implementation and thus sit in the driver's seat. In addition, ADB is providing a lead consultant for each working group with technical expertise on the subject areas to assist the groups in preparing their work. A detailed overview of Chairs and members of each working group can be found in Appendix 2.

During the reporting period, the second round of working group meetings took place on 11 & 13 October and on 14 December 2021 followed by an ESCC meeting on 21 April 2022.⁹ The working group chairs successfully presented the deliverables and received ESCC's approval for the deliverables developed.

d. Visibility boosted and new partnerships formed

Another groundbreaking development in the CAREC Energy Program is the launch of the new CAREC Energy web platform (www.carecenergy.org) accessible to a wider public including stakeholders inside and outside the region. The program's increased visibility led new organizations/development partners to express significant interest in the CAREC energy activities. A number of new organizations have now joined the ESCC and are supporting the implementation of the CAREC deliverables and/or have significantly contributed to the flagship events conducted (see above). UNECE, UNDP, Energy Charter, ERRA and EFSD are some of the new organizations that joined ESCC activities between 2020-2022.

III. Challenges and Key Issues

The main challenge remains the global COVID-19 pandemic which has prevented the CAREC Energy Community to hold face to face meetings. Despite these circumstances, all planned meetings and conferences were successfully held (in virtual format). While it is unfortunate that personal meetings were impossible, the virtual format also brought a number of positive effects:

- No restriction in the number of participants allowed a lot more CAREC members to join our meetings compared to the face-to-face format and led to more active participation
- A much bigger number of development partners joined our meetings compared to the past with some new partners joining the energy activities for the first time
- The virtual meetings also allow for a significant reduction in carbon footprint as no travel is involved

Thus, these challenges were successfully transformed into opportunities that will continue to positively impact the work of the CAREC energy program.

The reporting period was also overshadowed by ADB placing on hold its assistance in Afghanistan effective 15 August 2021 (ADB Statement on Afghanistan published on November 10, 2021: <https://www.adb.org/news/adb-statement-afghanistan>).

⁹The first round of working group meetings took place on 25 and 27 May 2021 followed by an ESCC meeting on 10 June 2021.



IV. Work Program for the Coming Period

The CAREC Energy Strategy 2030 is implemented in sequences of 2-year work programs. Thus, until 2030, there will be a total of five work programs to achieve the goals of the strategy. The deliverables of the first work program (covering the period 2020-2022) are now nearly completed with only the publication of the CAREC Energy Outlook 2030 and an Energy Investment Forum outstanding. Upon completion of these outstanding activities, a new work program for the period 2023-2025 will need to be established together with the ESCC. Activities to be taken up for the period 2023-2025 shall be aligned with the CAREC Energy Strategy 2030 work plan.

V. Deliverables for the Ministerial Conference

The following list gives an outlook of deliverables (i) completed during the reporting period covered by this report and (ii) expected to be completed until the MC 2022:

Table 3: List of Deliverables for the 2022 Ministerial Conference

Deliverables	Completion	NFP/MC action
Concept for establishment of a regional financing vehicle for green energy projects (CAREC Green Energy Alliance)	Q2 - 2022	for presentation at the MC
CAREC Energy Reform Atlas	Q2 - 2022	for information
Concept for the establishment of a Central Asia Transmission Cooperation Association (CATCA) prepared	Q2 - 2022	for information
Publication of 1st CAREC Energy Outlook	Q4 - 2022	for information
Organization of a CAREC Energy Investment Forum (2 Fora)	Q4 2021 & Q4 2022	for information
Development of the 1st CAREC Women in Energy Program	Q1 2022	for information
Organization of the 1st Women in Energy Summit	Q1 2022	for information

VI. Key Issues for Guidance by the Senior Officials' Meeting

Alongside the adoption of the CAREC Energy Strategy 2030, the CAREC Energy Ministers signed a declaration in September 2019 in Tashkent in the framework of the 1st CAREC Energy Ministers Dialogue which contains specific commitments for the CAREC Energy Sector including the following:

- Double regional power flows until 2023
- Double solar and wind power capacity by 2023
- Double the level of energy efficiency until 2030



- Attract private investors through suitable financing vehicles
- Affordable and clean energy for all including in hard to reach areas before 2030
- Implement energy sector reform including phase out of fiscal and fossil fuel subsidies
- Gender Equality in the CAREC Energy Sector by 2030

In view of the commitments, it is suggested to hold a 2nd Energy Ministers Dialogue in 2023/2024 to report on the progress made of these commitments and agree on new commitments as deemed necessary. The CAREC Senior Officials are kindly invited to transmit this suggestion to their governments and report back whether the idea of holding a 2nd Energy Ministers Dialogue is supported.



VII. Appendices

CAREC Energy Working Group Chairs and Members (as of June 2022)

Country	Member in all groups	Work Streams			Task Forces		
		WS 1 Infrastructure Connectivity & Energy Security	WS 2 Policy Reform & Liberalization	WS 3 Energy Efficiency & Diversification of the Energy Mix	TF-A Knowledge Products, Partnerships & People's Networks <i>Chaired by ADB</i>	TF-B Private Sector Enhancement <i>Chaired by CAREC Presidency Country holding the EIF</i>	TF-C Women Empowerment <i>Was chaired by Afghanistan¹⁰ until mid 2021 – then chaired by ADB</i>
Afghanistan	x	Member	Member	Member	Member	Member	Chair
Azerbaijan	x	Member	Member	Mr. Asaf Rzayev Co-Chair	Member	Member	Member
Georgia	x	Member	Member	Ms. Margalita Arabidze Co-Chair	Member	Member	Member
Kazakhstan	x	Ms. Gulnara Bakhtybaeva Co-Chair	Member	Member	Member	Member	Member
Kyrgyz Republic	x	Member	Member	Member	Member	Member	Member
Mongolia	x	Member	Member	Member	Member	Member	Member ¹
Pakistan			Member	Member			
People's Republic of China		Member		Member			
Tajikistan		Member	Member	Member			
Turkmenistan		Member		Member			
Uzbekistan			Mr. Bakhrom Umarbekov Chair	Member		Member	

¹⁰ ADB placed on hold its assistance in Afghanistan effective 15 August 2021. (ADB Statement on Afghanistan published on November 10, 2021: <https://www.adb.org/news/adb-statement-afghanistan>)

