



DOCUMENTATION

Learning Process: Renewable Energy Options on the Municipal Level

CONNECTIVE CITIES KICK-OFF DIALOGUE EVENT 10. TO 12. OCTOBER 2023 IN TBILISI



35 experts



19 municipalities



8 countries

Partners of Connective Cities



with its



Commissioned by



1. Executive Summary

The Connective Cities Kick-off Dialogue Event, taking place from October 10-12, 2023, brought together municipalities from various countries to discuss and share insights on “Renewable Energy Options on the Municipal Level.” Key participating municipalities were represented from Albania, Bosnia and Herzegovina, Georgia, Germany, Moldova, Montenegro, Serbia, and Ukraine.

During the event, innovative strategies in renewable energy were showcased, with participating municipalities engaging in collaborative learning and group deliberations to delve into the nuances impacting their renewable energy endeavors. Utilizing a design thinking approach, the Dialogue Event sought to uncover and address gaps and obstacles within current municipal strategies by scrutinizing the unique circumstances of each participating city.

With a diverse attendance of over 35 individuals representing 19 municipalities across 8 countries in Southeast Europe and Germany, the event featured presentations of successful practices and projects from 9 municipalities, aimed at sparking interactive discussions among attendees. Many participants encountered similar challenges in advancing renewable energy initiatives, highlighting the necessity to bolster knowledge and expertise to progress in this area.

To meet this objective, municipal stakeholders and urban experts from Germany and the Southeast European region actively engaged in collaborative learning, offering technical guidance, and sharing expertise to foster the development of localized solutions that align with both stakeholder needs and economic and technological feasibility.

At a Glance

- The event highlighted renewable energy development options for municipalities.
- Discussions covered legal frameworks, smart city initiatives, and Bosnia and Herzegovina's community-based plans.
- Hamburg City Hall presented on Citizens-Energy-Cooperatives.
- Various initiatives were showcased, with discussions on smart cities, energy-efficient solutions, and financing.
- Participants engaged in thematic working groups focusing on objectives, results, and support needs. Rapporteurs summarized key aspects of good practices. The event showcased a commitment



Picture 1: Participants

2. Introduction

To achieve sustainable and eco-friendly cities, policymakers and urban designers must engage in environmentally friendly city planning based on the principles of the circular economy. Encouraging the use of eco-friendly public/private transport, the use of renewable energy sources and, the uptake of smart solutions are gradual steps that can be taken cities, in becoming green and sustainable urban settlements. The strategy and planning processes for decentralized energy would inevitably interact with overall urban planning. Ultimately, energy consumption (and production, in the case of prosumers) in end-use sectors such as buildings, transport, and industry are greatly influenced by how a city is planned and envisioned for both immediate-term developments as well as long-term objectives.

The Connective Cities Learning Process aimed to promote an exchange of relevant municipal expertise in renewable energy through a facilitated peer-to-peer consultation among urban practitioners from SEE and Germany. It promoted the sharing of information through knowledge and experience sharing amongst the participants and, provided the latest research and development, concerning issues of renewable energy in the region.

“Participants, organizations, institutions, and municipalities united across borders, actively addressing challenges through practical solutions in energy efficiency and renewable sources.”

Agron Haxhimali, Institute of Albanian Municipalities

3. Kicking off the Learning Process

The event was launched with opening remarks from the host city, Tbilisi City Hall, who shared valuable perspectives on renewable energy development, and provided insights from the City’s goals and achievement in this area. The warm welcome was extended to officials from the GIZ Country Office in Georgia and the Embassy of the Federal Republic of Germany in Georgia, underscoring the collaborative and international nature of this initiative.

The event commenced with an opening discussion on the “Importance of Municipal Action in Energy Efficiency and Renewable Energy Provision”. Notable presentations included discussions on the legal framework, municipalities’ participation, and smart city initiatives.

A highlight of the event was the Good Practice Introductory Talk, focusing on the role of Citizens-Energy-Cooperatives for Renewable Energy in Germany, presented by the Hamburg City Hall.

The Good Practice Gallery Walk showcased diverse initiatives, leading to Practitioners’ Corners, featuring thematic working groups discussing topics such as Bio-Energy Villages, business plan preparation, eco-smart cities, and energy-efficient solutions.

Participants engaged in group discussions, categorized into “Smart Cities and Energy-Independent Communities” and “Renewable Energy and Energy Efficiency in Municipal Buildings.” These discussions centered around objectives, concrete results, success factors, financing considerations, experiences for sharing, and support requirements for strengthening each initiative.

The concluding session featured rapporteurs presenting key aspects of the Good Practices from each group, emphasizing success factors, financing models, experiences, and support needs.

Throughout the event, participants demonstrated a commitment to sustainable practices and knowledge sharing, showcasing a collaborative effort to advance renewable energy at the municipal level. The insights gained and the collaborative spirit fostered during the event lay a solid foundation for ongoing initiatives and future endeavors in the realm of renewable energy across participating municipalities.

Participating Municipalities

19 municipalities from 8 countries participated in the dialogue event.

9 good practice examples were showcased at the dialogue event.

4. Participants and Speakers of the Dialogue Event

The event was attended by municipal and non-municipal representatives of 19 cities from 8 countries:

Albania: Municipalities of Kavaja, Roskovec, Institute of Albanian Municipalities

Bosnia and Herzegovina: Municipality of Sokolac, Town of Mostar

Germany: City of Hamburg

Georgia: Municipalities of Khoni, Kutaisi, Poti, Senaki, Tbilisi, Vani, and Environmental Ecological Association DEA

Moldova: City of Chisinau

Montenegro: Municipality of Cetinje

Serbia: Standing Conference of Towns and Municipalities - National Association of Local Authorities in Serbia

Ukraine: Municipalities of Konotop, Lutsk, Nemyshaiv Settlement, Odessa.

The Dialogue Event kicked off with an open discussion on “Importance of Municipal Action in Energy Efficiency and Renewable Energy Provision”. The panelists included representatives from different institutions: Omar Tsereteli - Deputy Head of the Department of Energy Efficiency and Renewable Energy Policy and Sustainable Development, Ministry of Economy and Sustainable Development of Georgia; Rob Taylor - Chief of Party, Securing Georgia’s Energy Future Program, U.S. Agency for International Development (USAID); Minela Isaković - Energy Advisor, Community Action for Energy Transition (CAET), GIZ Bosnia & Herzegovina. The panelists shared their viewpoints and experiences and presented different perspectives.

“The workshop provided insights on solutions and advocated for more renewable energy use at the local level.”

Miodrag Gluščević, Program Director, Standing Conference of Towns and Municipalities – NALA, Serbia



Picture 2: Gallery walks insight



Picture 3: Opening Dialogue: Speakers on Municipal Energy Action

5. Good practices

The Dialogue Event on “Renewable Energy Options on the Municipal Level” showcased a diverse array of impactful Good Practices. Participants engaged in a gallery walk, fostering information exchange and collaborative learning. The following noteworthy initiatives were presented:

1. BioVill – Bio-Energy Villages | Kostojevići, Serbia

A pioneering project in Serbia focusing on the development and implementation of bio-energy villages, demonstrating sustainable practices and environmental stewardship.

2. Experience in Preparation of the Business Plan for the Renewable Energy Community Project | Sokolac and Mostar, Bosnia & Herzegovina

Bosnia & Herzegovina shared insights into their experience in preparing business plans for renewable energy community projects, providing a valuable resource for other municipalities.

3. Kutaisi Eco Smart City | Kutaisi, Georgia

The city of Kutaisi in Georgia presented an exemplary case of transforming into an eco-smart city, showcasing innovative solutions for sustainable urban development.

4. Urban Imaginaries: Creation of a Multifunctional Social Space based on a Human-Centered Design | Poti, Georgia

Poti, Georgia, demonstrated the creation of a multifunctional social space using human-centered design principles, fostering community engagement and inclusivity.

5. Renewable Energy Sources for IDPs in Collaboration with NGO | Senaki, Georgia

Senaki, Georgia, showcased a collaborative initiative with non-governmental organizations (NGOs) to provide renewable energy sources for internally displaced persons (IDPs), addressing critical humanitarian needs.

6. Energy-Efficient Thermal Modernization of the Building of the Communal Non-Commercial Enterprise Centre of Primary Medical and Sanitary Care of the Nemyshaiv Settlement Council | Kyiv Region, Ukraine

Ukraine's Nemyshaiv Settlement Council exemplified energy-efficient thermal modernization, contributing to sustainable infrastructure development in the Kyiv Region.

7. Installation of Solar Panels to Strengthen Capacities of the Municipal Swimming Pool | Lutsk, Ukraine

Lutsk, Ukraine, demonstrated the installation of solar panels to enhance the energy capacities of the municipal swimming pool, showcasing the integration of renewable energy in recreational facilities.

8. Photovoltaic Systems for Self-Consumption at Hoxhenjte Pumping Station, Suk1 | Roskovec, Albania

Roskovec, Albania, presented a project involving photovoltaic systems for self-consumption at the Hoxhenjte Pumping Station, contributing to sustainable energy practices in the region.

The Good Practices showcased as part of the gallery walk reflect the commitment of participating municipalities to innovation, sustainability, and collaborative efforts in advancing renewable energy solutions on the municipal level.

6. Expert inputs and Panel Discussions

In addition to showcasing exemplary practices, the Dialogue Event featured valuable insights from various experts, offering diverse perspectives on opportunities for energy efficiency and renewable energy development at the municipal level.

- The Institute of Albanian Municipalities presented a case advocating for Promoting local green fiscal policies to increase the share of renewable energy sources.** Municipalities face challenges in developing, implementing, and monitoring Sustainable Energy Action Plans (SEAPs) as required by the Covenant of the Mayors. In urban and rural areas, households, service providers, and transportation are the major energy consumers. Due to budgetary and technical constraints, municipalities struggle with significant investments, necessitating innovative approaches. Local Government Units (LGUs) must employ inventive practices and solutions for sustainable energy, with a focus on involving private sectors through local taxation systems. This involves targeting key sectors like residential buildings and services with renewable energy potential. The project emphasizes empowering local authorities, especially Covenant of Mayors signatories, as the main European initiative, to spearhead sustainable energy activities and facilitate widespread dissemination.
- Standing Conference of Towns and Municipalities – National Association of Local Authorities in Serbia presented the role of the Association of Local Governments in the Creation and Implementation of Local Energy Policies - An example of the Bio-Energy Villages Project.** The Local Governments Association plays a crucial role in shaping and implementing local energy policies by articulating local initiatives, advocating with central government institutions, providing advisory services, capacity building, and project implementation support. It serves as an information hub connecting municipalities, central government, and international partners, with dedicated bodies like the Committee on Utilities and Energy and the Network of Energy Managers.

The concept of a bioenergy village is highlighted - a community meeting most energy needs through local renewable sources, combining biomass from agriculture, forestry, and waste, along with other renewable sources. These villages employ various technologies like wood chip boilers, wood boilers, biogas plants, or CHP plants, distributing energy through small-scale local networks. As a result, the project successfully increased awareness among the local population, including school children, regarding the importance and benefits of

the bioenergy village approach. Additionally, it enhanced the capacities of the local self-government for implementing bio-energy projects, contributing to notable improvements in both indoor and outdoor air quality in the local environment.

- **Helios Energy Georgia, established in 2017, is a leading renewable energy company in Georgia specializing in solar power.** They have installed the largest solar power plant in Tbilisi and are actively involved in creating in-dependent power systems and electric car charging stations. With an impressive overall installed capacity of 15.5 MW, they aim to contribute to national energy independence. The Helios Energy Academy, founded in 2019, educates individuals about renewable energy to reduce Georgia's reliance on neighboring countries. Their mission is to transform every beam of light into energy, emphasizing the goal of sustainable and innovative energy solutions. Energy Independence is at the core of their vision for both individuals and the entire state.
- **Founded in 2017, the Georgian Renewable Energy Development Association (GREDA) is committed to promoting renewable energy initiatives in Georgia.** Their focus spans advocacy for equitable regulations, public awareness campaigns, and collaboration with stakeholders. GREDA actively supports organizations and investors engaged in diverse renewable energy projects, such as hydroelectric stations, wind turbines, and solar power stations. Notably, GREDA has presented the concept of benefit sharing from renewable power plant projects, showcasing their dedication to fostering sustainable and inclusive development in the renewable energy sector.

Besides, the Connective Cities Dialogue Event featured distinguished guest speakers, each providing unique perspectives on renewable energy development for municipalities. The insights from these speakers contributed to the richness and diversity of the discussions. Here are the key speakers and their respective organizations:

- **Securing Georgia's Energy Future Program, U.S. Agency for International Development (USAID)**
The USAID program aims to upgrade Georgia's energy infrastructure, reduce import dependency, and enhance resilience against cyber threats. It aligns with USAID's strategy to promote sustainable energy sources, strengthening the US-Georgia strategic relationship.
- **Energy Efficiency Centre Georgia (EECG)**
Established in 1998 by the European Union, EECG promotes renewable energy and energy efficiency in Georgia. Its objectives include enhancing national energy security, reducing environmental impact, and increasing

awareness about sustainable energy practices. EECG collaborates with international organizations such as the Covenant of Mayors and the Green Climate Fund.

- **Caucasus Clean Energy Holding (CCEH)**
Founded in 2015, CCEH is an international investment company with investors from Western countries. Active in Georgia since 2015, CCEH focuses on investing in the construction of small and medium hydropower plants. They emphasize incorporating Western best practices in construction and operation.

These speakers and their organizations collectively contribute to Georgia's sustainable energy landscape, providing valuable insights and initiatives for municipalities seeking to enhance their renewable energy capabilities. The diversity of perspectives showcased during the event reflects a holistic approach to addressing the challenges and opportunities in renewable energy development.

"The workshop allowed me to play various roles – presenter, contributor, and peer-consultant – enhancing my skills for leading the Sustainable Development and Innovations Department."

Nino Gvasalia, Poti Municipality, Georgia

- **Ministry of Economic Development of Georgia**
The Ministry of Economy and Sustainable Development of Georgia presented the recent developments in energy policy highlighting the challenges and opportunities. Since 2014, the Ministry of Economy and Sustainable Development of Georgia, along with supporters like the Energy Efficiency Center (EEC), NALAG, and the Ministry of Environmental Protection and Agriculture, have endorsed the Covenant of Mayors. Among Georgia's 69 municipalities, 32, including 5 self-governing cities and 64 communities, have committed to this initiative. Municipalities are required to develop Sustainable Energy (and Climate) Municipal Action Plans (SEAP or SECAP). Notably, 10 cities have already crafted SEAPs, focusing on energy efficiency and renewable energy measures in priority sectors such as transport, infrastructure, construction, street lighting, land use changes, and waste management.
- **German Experience - The City of Hamburg**
As a necessary part of the peer-to-peer exchange, the participating municipalities and institutions from the region were eager to listen to other countries' experienc-

es in the field of energy development that could be also developed in their municipalities. That is why, a representative from the city of Hamburg, Dr. Stefan Lübben, highlighted the significance of the importance of citizens-energy cooperatives to produce renewable energy in Germany. According to Mr. Lübben these cooperatives, legally registered entities, prioritize decentralized, group-independent, and eco-friendly energy production. Key goals include public participation, a bottom-up approach, low-threshold offerings, equal voting, local organization, and renewable energy production. Notable facts about German Energy Cooperatives: 847 exist, 29 founded in 2021, 220,000 members, €3.3 billion investment in renewables since 2006, €5,900 average participation per member, generating 8 TWh of green energy, avoiding 3 million tons of CO2 annually, with varied returns (0-8% per annum). Public buildings and businesses with daily electricity needs can utilize PV systems on their roofs, exemplified by a sports club meeting its electricity demand and selling excess energy back to the grid.

“Thanks to the group’s hard work and facilitators’ guidance, we have crafted an exciting project to create an eco-space in our city’s public area.”

Ana Vintsiuk, Head of the international Cooperation and Project Activities Department City of Lutsk

7. Site Visit

In addition to the dynamic discussions, peer-to-peer exchanges, and informative presentations on best practices, the Dialogue Event provided participants with the opportunity to visit a factory dedicated to renewable energy production. Notably, this facility manufactures USB cables from recycled plastic waste, showcasing innovative sustainability practices.

“Tene,” the pioneering Georgian USB cable producer, recently revealed its groundbreaking company concept. Collaborating with Ginventor, a comprehensive online store in Georgia established in 2017, they introduced “Tene” in 2019 – the world’s first eco-friendly USB cable made from recycled materials. This collaboration underscores Ginventor’s dedication to advancing local production and prioritizing customer satisfaction.

Developed by Jenventor, Tene is a trailblazing “green” USB cable, showcasing a significant leap towards sustainability in

electronic accessories. Its exclusive use of secondary waste materials aligns with Jenventor’s commitment to combat environmental pollution, positioning Tene as a standout solution in the market and emphasizing the importance of sustainable practices in product development.



Picture 4: Site Visit Insights: TENE Start-Up Presentation

A noteworthy aspect of Tene is its commitment to eco-friendly manufacturing. During the Dialogue Event, participants visited Tene’s factory, which operates solely on solar panels. They observed the production of USB cables crafted from reused plastic waste – a clear demonstration of how small companies can operate on renewable energy. This visit served as an inspiring showcase, emphasizing the role of municipalities in fostering innovative ideas for sustainable practices.

Tene’s dedication to sustainable practices not only sets it apart in the market but also serves as a model for environmentally conscious manufacturing and energy use, reflecting a forward-thinking approach to technology and business.

8. Thematic Solutions

In response to the growing need for sustainable urban development and energy independence, municipalities within Southeastern Europe region embarked on a collaborative effort to brainstorm and analyze thematic solution options. Two separate groups were formed to delve into the areas of Smart Cities and Energy-Independent Communities, respectively.

Smart Cities and Energy-Independent Communities:

The municipalities of Kostojevici (Serbia), Sokolac and Mostar (Bosnia and Herzegovina), Kutaisi, and Poti (Georgia) were identified as exemplary cases in the pursuit of smart city

initiatives and energy independence. These regions demonstrated a commitment to integrating innovative solutions and fostering community engagement. Key findings in this domain include:

- Emphasis on sustainability, public participation, resource efficiency, and local ownership.
- The significance of political will, citizen participation, administrative capacity, and local ownership in driving successful initiatives.
- The importance of benefits for citizens, diversification of financing, co-financing opportunities, and participation in regional conferences.
- The need for enhanced capacity at the municipal level, flexibility in options, and compliance with laws and regulations.

Stakeholders Mapping:

The participants of the Dialogue Event defined the following potential stakeholders: municipal authorities and relevant departments, along with external stakeholders including technical consulting groups, donors, investors, and local citizens, were identified as pivotal in the implementation of these initiatives.

Eco Space (City of Lutsk, Municipality of Konotop):

The City of Lutsk initiated the concept of an eco-space. Challenges identified in the Eco Space initiative included insufficient energy independence, low citizen interest, technological apprehension, lack of successful examples, promotion of renewables, and understanding of feasibility.

In conclusion, the thematic solution options for Smart Cities and Energy-Independent Communities offer promising avenues for sustainable development and resilience in the face of environmental challenges. By leveraging the identified strengths, addressing weaknesses, and capitalizing on opportunities, municipalities can pave the way toward a greener and more prosperous future.

9. Elaborated concepts

The participants of the Dialogue Event elaborated on solution option concepts that still need further elaboration to get support in further development. In total, nine solution options were elaborated:

1. Photovoltaic Panels for self-consumption on 'Adem Vrapit' high school, Roskovec, Albania.

The project aims to encourage an increase in awareness of the use of renewable energy, including public buildings and inter-urban mobility. Overall goal: Strengthen capacities,

empowering local government, local citizens, and vulnerable communities to work together to reduce energy poverty and achieve clean community energy objectives through new partnerships and solar pilot projects.

2. Renewable Energy in Rural Areas / RERA – Institute of Albanian Municipalities, Kavaja and Roskovec, Albania

The project will support municipalities to define and implement innovative local fiscal policies, intended to promote renewable energy sources (RES) both in the public and private sector and households, mainly in the framework of the Sustainable Energy Action Plans adopted by Local Authorities signatories of the Covenant of Mayors. Goal: Fostering low-carbon strategies and energy efficiency in specific rural territories in Albanian municipalities. Objective: To increase the share of renewable local energy sources in energy mix strategies and plans in specific rural territories.

3. Feasibility study for the project ideas with clear financing models applicable in the future establishment and operation of the REC project idea.

Project "Decarbonization of the energy sector in Bosnia and Herzegovina", implemented by GIZ, provided technical assistance to the municipality Sokolac (located in Republika Srpska) and town Mostar (located in the Federation of Bosnia and Herzegovina) in drafting business plans for the project ideas based on the renewable energy community concept (RECs). The project is planned for the implementation of the photovoltaics (PVs) on the rooftop of the existing public buildings: elementary schools for children with special needs and several parking places (71.01 kW) – in the town Mostar; sports hall, elementary and high school (49.02 kW) – in the municipality Sokolac. Produced electricity from the PVs would be used for own needs of the municipality of Sokolac and the town of Mostar and the excess electricity (especially in the summer period) would be sold to the grid at a supported price.

The goal of the proposed solution option is to define efficient and applicable sources of financing needed for the establishment and operation of the REC project ideas in Bosnia and Herzegovina. To achieve the aforementioned goal, EU practice should be investigated; defined the main elements for the sustainable financing models; and clear promotion activities should be defined.

4. Improving energy efficiency for elementary school and building school sports halls also energy efficient – Cetinje, Montenegro

The proposed solution option envisages adjustment of school buildings according to Energy efficiency regulations with simple works on the façade which include thermal insulation, change of doors and windows including appropriate shades for windows and big glass surfaces. Also, all the lighting will be changed to LED. Municipality Cetinje has already done the architectural Project and measurements of the existing building.

That is the first step to provide all the necessary studies for the energy consumption of existing buildings, the level of losing energy through walls, doors, windows, and roofs with no or low insulation, and to calculate how to improve the energy efficiency of the envelope of the building and to define the best solution for heating the school. Cooling will not be part of this project just in a way to put appropriate removable shades for all glass surfaces and with improved insulation and natural ventilation to control the cooling of the building in spring/summertime.

5. Development of Energy Space – Lutsk, Ukraine

Project overall objective: to contribute to the wider usage of renewable sources of energy in Lutsk City through the development of Energy Space promoting renewables.

Under the project, Lutsk municipality will create an Energy Space in the park zone of Lutsk. The space will promote renewable sources of energy in an interesting, technological, modern way. At the same time, the area will be a comfortable place to spend leisure time: to rest, train, and learn.

The project will promote solar, hydro, wind, and kinetic energy.

6. Installation of a solar power plant for the municipal enterprises of the production department of water supply and sewerage in Konotop Urban Territorial Community – Konotop, Ukraine

The project aims to improve the energy security of the community and reduce carbon dioxide emissions into the atmosphere by replacing electricity from the centralized grid with alternative electricity from the solar plant for the needs of the utility company. The project has the following goals:

- Increase the reliability of the power supply system by increasing its autonomy.
- Reducing electricity consumption of the Municipal Utility Company by installing a ground-based solar station, and as a result, reducing electricity consumption in the community.
- Reducing the carbon footprint of the facility by reducing electricity consumption, is a step towards our community's commitment to reduce CO₂ emissions by at least 30% by 2030.
- Maintaining sustainable service delivery to the community by ensuring uninterrupted power supply to the treatment facilities of the Municipal Utility Company.
- Raising public awareness of the use of renewable energy sources.

7. Energy Efficiency Kinder Garden – Tbilisi, Georgia

The project goal is to enhance energy efficiency in buildings within Tbilisi by minimizing energy consumption and promoting the utilization of natural resources, specifically through the installation of solar energy panels.

8. Implementation of energy-efficient technologies in municipal buildings – Senaki and Poti, Georgia

The project aims to use an alternative energy source (solar energy) to create an energy-efficient environment in the Sports Palace of Senaki Municipality. Promotion and implementation of renewable energy sources (solar energy) in Senaki Municipality, Equipping municipal buildings with renewable energy technologies. Awareness of local communities on alternative energy sources. Obtaining environmental and economic benefits using solar energy. To improve the energy efficiency of the administrative building of Poti Municipality City Hall, football base building Stadium of Poti Municipality to reduce electricity costs.

9. Mapping of Renewable Energy Sources and Investment Potentials - Khoni, Georgia

The project aims to identify opportunities for investing in renewable energy sources in the territory of the municipality of Khoni by mapping the resources and technical potential of renewable energy sources and determining their economic feasibility. By doing so it also intends to contribute to the intensification of investment activities related to the use of renewables for energy production at the local level.

This will be realized by applying a methodological approach that implies mapping several aspects related to the utilization of renewable energy sources. These are spatial distribution and potential of various renewable energy sources such as hydro, biomass, solar, geothermal and biogas, then accessibility to different kinds of infrastructure (energy and other), and finally needs for different types of energy in different consumption sectors at the local level.

“As head of Sustainable Development and Innovations, I work on energy-efficient projects. The workshop experience will help me develop and share new ideas with my team.”

Nino Gvasalia, Head of Sustainable Development and Innovations Department Poti Municipality, Georgia

Link to video of the workshop

<https://www.youtube.com/watch?v=uc1SMXGdHvs>

Table 1 - Solution options developed by the participating municipalities

	Solution Option	Municipality/ Organization, Country
1.	Photovoltaic Panels for self-consumption on 'Adem Vrapii' high- school	Roskovec, Republic of Albania
2.	Renewable Energy in Rural Areas / RERA	IAM , Kavaja & Roskovec, Albania
3.	Feasibility study for the project ideas with clear financing models applicable in the future establishment and operation of the REC project idea.	Sokolac, Mostar, BiH
4.	Improving energy efficiency for elementary school and building school sports halls also energy efficient	Cetinje, Montenegro
5.	Development of Energy Space in Lutsk	Lutsk, Ukraine
6.	Installation of a solar power plant for the municipal enterprises of the production department of water supply and sewerage in Konotop Urban Territorial Community	Konotop, Ukraine
7.	Energy Efficiency Kinder Garden	Tbilisi, Georgia
8.	Implementation of energy-efficient technologies in municipal buildings	Senaki and Poti, Georgia
9.	Mapping of Renewable Energy Sources and Investment Potentials	Khoni, Georgia

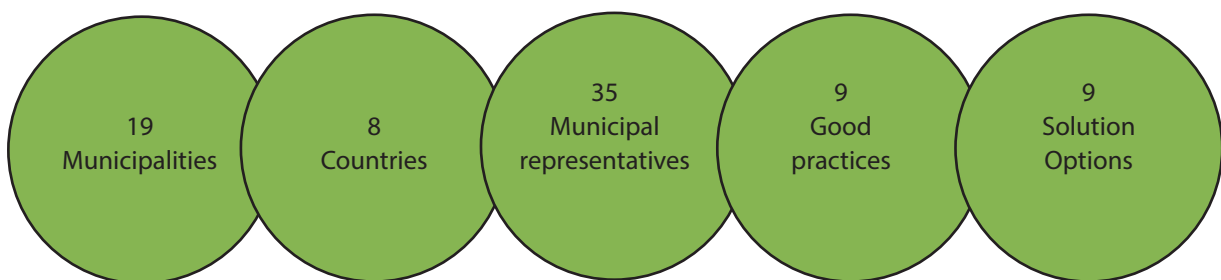


Figure 1: Outcomes of the workshop

PARTICIPATING MUNICIPALITIES AND INSTITUTIONS

1. Kavaja Municipality, Albania
2. Institute for Albanian Municipalities, Albania
3. Roskovec Municipality, Albania
4. Sokolac Municipality, Bosnia & Herzegovina
5. Mostar Municipality, Bosnia & Herzegovina
6. Kutaisi Municipality, Georgia
7. Vani Municipality, Georgia
8. Poti Municipality, Georgia
9. Senaki Municipality, Georgia
10. Environmental Ecological Association DEA, Georgia
11. Tbilisi City Hall, Georgia
12. Cetinje Municipality, Montenegro
13. Standing Conference of Towns and Municipalities –
NALA, Serbia
14. Lutsk City Council, Ukraine
15. Nemishaiv settlement community, Kyiv region,
Ukraine
16. Kyiv, Ukraine
17. Odessa Municipality, Ukraine
18. Konotop City, Ukraine
19. Hamburg City, Germany

IMPRINT

Published by
Connective Cities
International Community of Practice for
Sustainable Urban Development
info@connective-cities.net
www.connective-cities.net/en/

Connective Cities is a joint venture between
The Association of German Cities
Gereonstraße 18–32 | 50670 Cologne | Germany

Engagement Global gGmbH and its
Service Agency Communities in One World
Friedrich-Ebert-Allee 40 | 53113 Bonn | Germany

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Friedrich-Ebert-Allee 32+36 | 53113 Bonn | Germany

Editorial revision
Ketevan Papashvili | Ana Chubinidze

Picture credits
Connective Cities

Design and layout
Vielhaber und Geilen Partnerschaft

February 2024

Disclaimer:
This is a Connective Cities publication. The views expressed in this publication do not necessarily reflect the opinions and policies of the Connective Cities cooperation partner (Association of German Cities, Engagement Global gGmbH and its Service Agency Communities in One World (SKEW), and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH).

Commissioned by
German Federal Ministry for Economic Cooperation
and Development (BMZ)

BMZ Offices
Bonn Office
Dahlmannstraße 4
53113 Bonn | Germany
T: +49 (0) 228 99 535-0
F: +49 (0) 228 99 535-3500

Berlin Office
Stresemannstraße 94
10963 Bonn | Germany
T: +49 (0) 30 18 535-0
F: +49 (0) 30 18 535-2501

poststelle@bmz.bund.de
www.bmz.dee

Connective Cities – International Community of Practice for Sustainable Urban Development

Since 2013, Connective Cities promotes the worldwide exchange of municipal expertise, disseminates proven-practice solutions for sustainable urban development, and supports peer learning between German and international experts from municipalities, as well as the jointly development of project ideas within the framework of structured learning processes.

Connective Cities is a joint project of the Association of German Cities (Deutscher Städtetag), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Engagement Global with its Service Agency Communities in One World (SKEW). The project is funded by the German Federal Ministry for Economic Cooperation and Development (BMZ).

For more information, please visit:
www.connective-cities.net/en/

Commissioned by

