

Three cities and regions chart a path to power through renewable energy with launch of 100% Renewables Roadmaps

São Paulo, Brazil (19 June 2024) – ICLEI - Local Governments for Sustainability, in partnership with the governments of Avellaneda (Argentina), Kisumu County (Kenya), and West Nusa Tenggara Province (Indonesia), unveiled roadmaps for realistic and customized pathways towards 100% renewable energy by 2050 at the ICLEI World Congress 2024 in São Paulo, Brazil.

“These roadmaps show that cities and regions are not just passive participants in the energy transition—they are active leaders, as exemplified by Avellaneda, Kisumu County, and West Nusa Tenggara,” said Gino Van Begin, ICLEI Secretary General. “By embracing this role, they can turn the challenges of today into the opportunities of tomorrow,” he said.

Each roadmap is tailored to the unique contexts of the respective territory, factoring in their available renewable energy sources, demographics, and resources. The roadmaps build on tailored energy modeling conducted by the Fraunhofer Institute for Solar Energy Systems. In addition, they provide further guidance on turning modeling scenarios into tangible results on the ground through policy recommendations, potential sources of finance, and methods for monitoring and evaluating progress through specific indicators. This results in distinct pathways, customized priorities, and realistic goals for each location.

“We are proud to launch the 100% Renewables Cities and Regions Roadmaps for Avellaneda, Kisumu County, and West Nusa Tenggara Province,” said Rohit Sen, Head of Sustainable Energy at ICLEI. “These Roadmaps represent the sum total of our work with subnational governments over the past several years, and help highlight the level of energy, enthusiasm, and ambition at the local level to tackle the climate emergency.”

The roadmaps are a culmination of the [100% Renewables Cities and Regions Roadmaps](#) project, funded by the German Federal Ministry for Economic Affairs and Climate Action (BMWK) through the International Climate Initiative (IKI).

Each city or region worked closely with the ICLEI World Secretariat and ICLEI’s regional offices - ICLEI South America, ICLEI Argentina, ICLEI Southeast Asia, ICLEI Indonesia, and ICLEI Africa - to define an overarching vision for their 100% renewable energy future, for example by prioritizing energy access or economic development. Together, they worked on expanding capacities related to energy and finance, undertaking extensive data collection to feed into the energy modeling process, conducting multilevel governance and policy dialogues, and identifying and developing bankable project proposals for further implementation.

Avellaneda, Argentina

Given its large industrial and agricultural base, Avellaneda chose to prioritize bioenergy to meet electricity and heating demand. Its roadmap includes measures to shift transport towards renewable energy and implement energy efficiency measures. Solar energy also plays a big role, with Avellaneda receiving support in the development of a bankable proposal for a 5 MWp solar park. Avellaneda's experience also highlighted the importance of multilevel governance that includes provincial (in this case, Santa Fe) and national governments in the planning of the local sustainable energy transition.

This integrated approach is designed to reduce the city's carbon footprint and enhance energy sustainability. Referring to Avellaneda's proposed bankable project, Juan Carlos Fernández, the municipality's representative in Avellaneda's Industrial Park, emphasized that, "For the city, for the climate situation and for the industrial park, renewable energies are an important input, and so we are supporting them in every way we can and we will continue to do so."

Kisumu County, Kenya

Kenya's electricity mix already features a high level of renewable energy, mostly from geothermal sources. However, in Kisumu County, a sizable share of the population lacks access to reliable electricity. Therefore, in addition to focusing on demand-side measures in the building and transportation sectors, Kisumu County chose to prioritize improving access to electricity and clean cooking sources and technologies. Switching from traditional to clean cooking fuels can go a long way in improving the overall welfare of Kisumu's residents.

"This roadmap is a vital step towards addressing our energy challenges by harnessing the abundant renewable energy resources available to us," said Salmon Orimba, County Executive Member for the Energy, Transport, Roads and Public Works Department. "We shifted energy production away from sources that release a lot of greenhouse gasses to those that release little to no greenhouse gasses. We thank all those who supported and provided input into it. Renewable energy not only offers a reduction to our carbon footprint but also provides affordable and reliable energy access to all, spurs economic growth, and supports the creation of green jobs," he concluded.

West Nusa Tenggara Province, Indonesia

As an island province, West Nusa Tenggara had to develop a coherent approach across its entire territory to effectively move away from fossil fuels and green its buildings and industries. Its dependence on imported fossil fuels created a vulnerability, not just in terms of climate change impacts, but also for energy security. However, West Nusa Tenggara also has vast bioenergy potential through agricultural waste and land availability present significant opportunities, which are a pillar of its roadmap. The province also outlined several actions that tackle industrial energy consumption and efficiency, in addition to improving building and transport energy efficiency, and access to clean cooking fuels and technologies.

"Renewable energy means resiliency and opportunity. Resiliency, as we want to be less dependent on importing energy from outside our region, which is mainly dominated by coal, oil and gas. Opportunity, since the transition from fossil to sustainable energy may trigger local industry to flourish, creating new employment and eventually increasing the standard of living of our people," said Niken Arumdati, Secretary of the Office of Energy and Mineral Resources of West Nusa Tenggara, adding, "We knew what our desired condition would be and the roadmap itself acts as a compass that guides us towards our destination."

In addition to the roadmaps, the project has produced other major resources to support cities around the world in their transition. The lessons learned from the project were distilled in a [package of policy recommendations](#). The [100% Renewables Solutions Package](#) offers detailed overviews and guidance for various technologies, financing approaches, and policies ranging from solar water pumping to electric vehicle charging. The [100% Renewables Factsheets](#) provide key facts and introductory technical information on renewable energy sources and technologies. The [Sustainable Energy Transition Strategy \(SETS\) game](#), which was used during the roadmaps' development process, provides an interactive tool for stakeholder engagement when tackling the challenges of energy transition.

For more information about the 100% Renewables Cities and Regions Roadmap project, please visit <https://renewablesroadmap.iclei.org>.

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About ICLEI

ICLEI – Local Governments for Sustainability (known as "ICLEI") is a global network of more than 2,500 local and regional governments committed to sustainable urban development. Active in 125+ countries, ICLEI influences sustainability policy and drives local action for low emission, nature-based, equitable, resilient and circular development. ICLEI Members and its team of experts work together through peer exchange, partnerships and capacity building to create systemic change for urban sustainability.

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