

# Terms of Reference for Expert(s) to support West Nusa Tenggara Province's 100% RE Roadmap Development

100% Renewables Cities and Regions Roadmap Project

As of 1 September 2021

## 1. About the 100% Renewables Cities and Regions Roadmap Project

The 100% Renewables Cities and Regions Roadmap (100% RE) is an international project implemented by ICLEI – Local Governments for Sustainability with support from the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU).

The 100% RE is the first global initiative that aims to accelerate the utilization of renewable energy by raising local awareness on renewable energy sources, showcasing how local and national governments can create coordinated enabling frameworks and policies, exploring access to public and private sector finance, and building local renewable energy projects addressing electricity and heating and cooling. ICLEI works together with local and regional governments from Argentina, Kenya, and Indonesia to develop community-wide 100% renewable energy (RE) strategies.

ICLEI Southeast Asia through its Indonesia Office has committed to assisting the Government of West Nusa Tenggara (WNT) Province, Mataram City, and Sumbawa Regency within this project's framework in implementing the 100% RE Project. The project will foster multilevel governance, and put collaboration at the heart of the sustainable energy transition in the region. This approach will allow cities and regions to not only unlock one of the largest potential solutions for GHG emission reduction, but also drive sustainable growth and local job creation, as well as various social benefits.

## 2. Term of Reference for WNT Province's 100% RE Roadmap Development

The project requires expertise to develop a roadmap document for the 100% renewable energy transition in West Nusa Tenggara Province, Indonesia. The expert must have experience in developing renewable energy roadmaps. The work includes 1) preparatory and scoping work; 2) develop WNT 100% RE roadmap (local strategies) including implementation mechanisms for local strategies; 3) conduct multi-stakeholder consultations to solicit inputs on the roadmap; 4) WNT 100% RE roadmap validation and final report writing in Bahasa and English; 5) develop solution packages related to renewable energy.

### 2.1 Scope of Work

The expert is expected to assist the development of 100% RE Roadmap for West Nusa Tenggara Province. The expert can work remotely without needing to be stationed at ICLEI Indonesia office (Yayasan ICLEI Indonesia) located in DKI Jakarta, Indonesia, but physical presence during fieldworks and if possible, some of the consultations, in the project cities/regions shall be planned." She/he

shall work closely with the relevant Project Officer during the roadmap development process. The following activities will need to be undertaken in order to help meet the objectives of the project:

In consultation and coordination with the government of West Nusa Tenggara Province, Mataram City, Sumbawa Regency and Yayasan ICLEI Local Governments for Sustainability Indonesia, the expert(s) shall undertake the following:

Specific Duties and Responsibilities		
No.	Work Packages	Deliverables
1	Preparatory and scoping work	<ul style="list-style-type: none"> <li>Formulate a Work Plan for the Development of 100% RE Roadmap</li> <li>Collect, identify, and analyze important points from relevant studies/reports such as WNT energy modelling results and WNT initial report that have been prepared by ICLEI</li> <li>Perform gap identification and analysis (data, capacity, policy) related to roadmap development</li> <li>Prepare and submit an inception report</li> </ul>
2	Drafting of the WNT 100% RE Roadmap	<ul style="list-style-type: none"> <li>Draft WNT 100% RE Roadmap based on the template provided by ICLEI (to be used as the baseline), WNT energy modelling results, GIS based RE resource analysis and other reports. The roadmap shall include:               <ol style="list-style-type: none"> <li>Local strategies to achieve the 2050 target in all sectors (electricity, transport and heating/cooling) and subsequent sub-sectors, based on a transition period with intermediate milestones (proposed: transition period: 2023-2030, 2030-2040 and 2040-2050. Intermediate milestone 2025, 2030, 2035, 2040, and 2050 (final target year)</li> <li>Potential implementation mechanisms for renewable energy interventions in all sectors and subsequent sub-sectors in WNT</li> <li>Funding schemes and financing mechanism to achieve the target the 100%RE target at the latest by 2050.</li> <li>Supporting policy recommendations and conclusion related to the target and action points</li> </ol> </li> <li>Facilitate consultation and validation of the draft document with WNT 100% RE project implementation team (PIT)</li> </ul>
3	Conduct multi-stakeholder consultations to solicit inputs on the roadmap	<ul style="list-style-type: none"> <li>Design and conduct multi-stakeholder consultations that considers stratification and adheres to the principles of empowerment, equality, and inclusiveness</li> <li>Prepare public consultations materials</li> <li>Collaborate with the WNT 100% RE team to ensure the involvement and cooperation from the stakeholders</li> <li>Facilitate consultation meetings with the National Advisory Group</li> </ul>

		<p>(NAG)/national focal point (MEMR), key stakeholders (BAPPENAS, MOEF), and other relevant stakeholders for the roadmap development</p> <ul style="list-style-type: none"> <li>Revise the draft Roadmap based on the results of the consultation and validation processes. Submit two versions of draft Roadmap in Bahasa and English to ICLEI SEAS/IO. .</li> </ul>
4	Finalization and soliciting approval of the Draft WNT 100% RE roadmap	<ul style="list-style-type: none"> <li>Facilitate consultations and solicit approval of the WNT Provincial government for the adoption of the Roadmap for the 100% RE in the region</li> <li>Revise and finalize the draft Roadmap based on the results of the consultation process.</li> <li>Submit the Bahasa and English copy of the final Roadmap to ICLEI SEAS/IO.</li> </ul>
5	Develop 5 solutions for the solutions packages related to renewable energy	<ul style="list-style-type: none"> <li>Conduct in-depth research on 5 topics: <ol style="list-style-type: none"> <li>RE based Electric Vehicles (EV) charging stations,</li> <li>Local Strategies for Green Hydrogen,</li> <li>Public Private Partnership (PPP) for Renewable Energy projects by Local Governments,</li> <li>Renewable Energy Based Minigrid, and</li> <li>Solar Water Pumping.</li> </ol> </li> <li>Draft the solutions packages using the template prepared by ICLEI</li> </ul>

## 2.2 Deliverables and Time Frame

The expert(s) is(are) expected to work closely with the project team at Yayasan ICLEI Indonesia, the ICLEI Southeast Asia Secretariat, ICLEI World Secretariat, and representatives of West Nusa Tenggara Provincial Government.

A maximum of **90 working days** are estimated to complete the deliverables as stated below. The engagements and consultations with ICLEI and West Nusa Tenggara Provincial Government will be both in-person and online (e.g. via email). The following table lists the deliverables and their respective delivery dates.

Deliverables	Indicative number of working days	Indicative timeframe deadline
Preparatory and scoping work	10	3 <sup>rd</sup> week of Oct 2021
Drafting of the WNT 100% RE Roadmap	25	4 <sup>th</sup> week of Nov 2021
Conduct multi-stakeholder consultations to solicit inputs on the roadmap	15	3 <sup>rd</sup> week of Dec 2021
Finalization and soliciting	20	3 <sup>rd</sup> week of Jan 2022

approval of the Final Draft WNT 100% RE roadmap		
Develop 5 solutions package related to renewable energy	20	3 <sup>rd</sup> week of Feb 2022

### 3. Payment

Yayasan ICLEI Indonesia shall pay the expert for the services herein stipulated. Payment will be made following the schedule of tranches below.

PERCENTAGE (%)	MILESTONE
30%	Upon contract signing (Mobilization Fund)
40%	Upon submission and approval of deliverables 1,2, 3 and 4
30%	Upon submission and approval of deliverable 5

### 4. Service Provider Requirements

The successful expert(s) must have:

- At least 5-10 years of experience in energy planning and renewable energy
- Master's degree in Environment, Urban and Regional Planning, Engineering, Energy, Statistics, or relevant majors
- Experience in doing and/or assisting data modelling using LEAP, Balmorel, KomMod, or other energy planning modelling software
- Experience in developing energy planning and renewable energy transition roadmap, highly considered
- Knowledge on government processes
- Excellent research and analytical skills
- Proficiency in Microsoft Office Suite
- Excellent command of written and spoken English and Bahasa
- Excellent writing, presentation, communication, and facilitation skills
- Knowledge on West Nusa Tenggara's energy situation (will be an advantage)

The expert(s) must have technical knowledge and experience, working knowledge as minimum, in the following sectors:

#### A. Electricity sector

- Determining the distribution of renewable energy potential based on the modelling capacity (coupled energy system, mean demand, low fuel price) have the ability in spatial data (GIS, QGIS)
- Performing peak, intermediate, and baseload analysis in the energy sector
- Energy storage system

- Grid readiness in transitioning to 100% RE
  - Required infrastructure cost
  - Coordinating with Indonesian State Electricity Enterprise (PLN) for RE priority in WNT (e.g., the possibility of the geothermal plant to be a baseload, etc.)
- B. Transportation sector
- Electric vehicle development and implementation strategy
  - E-vehicle charging infrastructure based on RE
- C. Commercial and industrial sector
- Biomass combined heat and power (CHP) plant for energy supply and consumption
  - Solar photovoltaic rooftop for C&I implementation, both in decentralized and grid connected forms
- D. Household sector
- Biomass and biogas for clean cooking application
  - Utilization of 100% biomass using urban and rural area approach
  - Solar photovoltaic interventions, both in decentralized and grid connected forms
- E. Economic schemes, financing and funding for renewable energy
- Formulating financing scheme to reach 100% RE in WNT province by 2050
  - Identifying supporting policies to support 100% RE implementation both in the regional and national level
  - Conducting coordination with WNT province's stakeholders, PLN, and funding agency
  - Providing project proposals that have been identified based on cost technology and adjusted to the transition period
  - Accommodating public consultation

## 5. Reporting Requirements and Management

- The expert will report to Mr. Selamat Daroyni, Project Officer, and Ms. Yheni Mulyaningsih, Project Assistant, for 100% Renewables Cities and Regions Roadmap (100%RE) Project of Yayasan ICLEI Indonesia and the activities in Jakarta will be implemented in close collaboration with team members from Yayasan ICLEI Indonesia and ICLEI Southeast Asia Secretariat based in Manila.
- Regular meetings/calls to report on progress on specific tasks and deliverables will be required.

## 6. Requirements for the Proposal

The following information must be provided in the proposal:

- Letter of Intent addressed to Mr. Selamat Daroyni, Project Officer for 100% Renewables Cities and Region Roadmap (100%RE) Project of Yayasan ICLEI Indonesia;

- Latest CV, if applying as an individual, or Organization Profile and individual CVs of potential team members, if applying as an organization/company; and Work plan and financial proposal; the financial proposal should outline professional fee (day rate in IDR) and breakdown of direct costs (such as survey or fieldwork needs, etc).

## 7. Closing Date for Submission

To apply, please submit a **Letter of Intent** that demonstrates your experience, qualifications, and proposed professional fee along with your **latest CV, proposal** (work and budget plan), and supporting documents.

Please send all materials in **one PDF document** via email with subject “**Expert(s) for WNT 100% RE Roadmap Development**” to [iclei-indonesia@iclei.org](mailto:iclei-indonesia@iclei.org) **no later than Sunday, 3 October 2021 at 5.00 pm Western Indonesia Time.**

For any queries related to submission, please contact Yayasan ICLEI Indonesia via the e-mail address above.

Please use English for all communications. Only successful candidates will be contacted. Due to the volume of applications being received, our office would not be able to entertain phone calls. For more information about ICLEI Southeast Asia Secretariat and ICLEI Indonesia Office, visit <https://icleiseas.org/>.