

# Terms of reference (ToR) for the procurement of services below the EU threshold

CONFIDENTIAL

**Consultant Service for the Development of  
Government Regulation of Hydrogen**

**Project number/  
cost centre:**

**GIZ PN 21.9022.1-  
003.00**

0.	List of abbreviations .....	2
1.	Context.....	3
2.	Tasks to be performed by the contractor .....	4
3.	Concept.....	5
4.	Personnel concept.....	6
5.	Costing requirements .....	9
6.	Inputs of GIZ or other actors.....	11
7.	Requirements on the format of the tender .....	11
8.	Option .....	12
9.	Outsourced processing of personal data .....	13
10.	Annexes .....	13

## 0. List of abbreviations

Aneka EBT	Directorate of Various New and Renewable Energy
DJEBTKE	Directorate General of New and Renewable Energy and Energy Conservation ( <i>Direktorat Jenderal Energi Baru, Terbaruk dan Konservasi Energi</i> )
Bappenas	Ministry of National Development Planning ( <i>Kementerian Perencanaan Pembangunan Nasional</i> )
Kemenkeu	Ministry of Finance ( <i>Kementerian Keuangan</i> )
KESDM	Ministry of Energy and Mineral Resources ( <i>Kementerian Energi dan Sumber Daya Mineral</i> )
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GR	Government Regulation ( <i>Peraturan Pemerintah</i> )
PR	Presidential Regulation ( <i>Peraturan Presiden</i> )
PtX	Power-to-X
RE	Renewable Energy
SOE	State Owned Enterprise
ToRs	Terms of reference

## 1. Context

Indonesia is heading towards a sustainable future through energy transition. There are several targets in regard with climate change mitigation action which Indonesia has committed to, namely the Nationally Determined Contributions (NDC) target. It stated that Indonesia is committed to reduce its GHG emissions by 31.89% unconditional or 43.2% conditional (subject to availability of international support for finance, technology transfer and development and capacity building). To help Indonesia in achieving their emission reduction targets, the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) Indonesia, through the GIZ Indonesia Energy Programme is supporting several ministries such as Ministry of National Development Planning (Bappenas), Ministry of Energy and Mineral Resources (KESDM) and Ministry of Finance (Kemenkeu) in the deployment of renewable energy in a form of technical assistance.

Hydrogen is emerging as an alternative energy source and storage option in Indonesia, a country that is heavily dependent on fossil fuels for its energy needs. Indonesia has set ambitious goals to reduce its carbon emissions and transition to more sustainable energy sources in alignment with the global push toward net-zero emissions. The government has identified hydrogen as one element of its energy transition strategy, given the nation's abundant renewable energy resources, including solar, wind, and hydropower. By leveraging these resources, Indonesia can produce hydrogen through water electrolysis powered by renewable energy, making it an environmentally friendly option to decarbonize various hard-to-abate sectors such as heavy industry, transportation, and power generation.

Several initiatives are already underway to advance hydrogen production and infrastructure development in Indonesia. Indonesia also aims to position itself as a regional hub for hydrogen production and export, tapping into the growing global demand for low-carbon energy solutions. However, the country faces challenges such as the need for significant investment in technology, infrastructure, and policy frameworks to support large-scale hydrogen production.

Policy plays a crucial role in the successful implementation of hydrogen as an energy source because it helps create the necessary framework to drive investments, standardize practices, and address market challenges. A clear and supportive policy environment can foster innovation, reduce risks, and support hydrogen technologies become commercially viable. For example, clear taxonomy, national Monitoring Reporting and Verification systems, government incentives for hydrogen production, infrastructure development, and research can stimulate both private and public sector involvement. Without strong policy support, the high initial costs associated with hydrogen production, storage, and utilization might deter investors, limiting its potential for widespread adoption.

Additionally, policy is essential in creating regulations and standards that ensure the safety, efficiency, and environmental sustainability of hydrogen systems. This can include safety protocols for storage and transportation, as well as guidelines for reducing the carbon footprint of hydrogen production methods. Effective policy frameworks also enable governments to set long-term goals for low carbon hydrogen development, such as carbon emission reduction targets and renewable energy integration, which guide investment and technological advancements. Moreover, policies can facilitate international collaboration, enabling the creation of cross-border hydrogen supply chains and markets, which can help lower costs and increase accessibility. Therefore, well-designed policies are a critical component for scaling up hydrogen technology and ensuring it contributes effectively to a cleaner, more sustainable energy future.

Previously, GIZ Energy Programme collaborated with the Ministry of National Development Planning (BAPPENAS) in developing the background study for Hydrogen on the RPJMN document. The study concluded the need of Government Regulation (GR) on Hydrogen to support Hydrogen development in Indonesia. Furthermore, GIZ Energy Programme worked with the Ministry of Energy and Mineral Resources in developing the Academic Draft for Government Regulation on Hydrogen which acts as the underlying document for the GR on hydrogen. In continuation, GIZ Energy Programme will support the drafting and submission process of this GR on Hydrogen.

The deliverance of activities within this contract will be under a project as part of Energy Programme of GIZ Indonesia. The project delivers technical assistance to its counterparts, which is within this context, the Ministry of Energy and Mineral Resources. The assistances provided to the counterparts are translated into various forms, ranging from capacity building, policy review, policy recommendations, study, etc. Specifically, the contractor is expected to deliver technical assistance in providing policy recommendation and analysis on existing and/or prospective energy policy and regulations and a broader strategic document supporting Indonesia's energy transition strategy and implementation.

## **2. Tasks to be performed by the contractor**

The contractor is responsible for providing the following services:

### **1) Work Package (WP) 1: Develop the draft of government regulation on low carbon hydrogen**

Deliverable(s): Draft of government regulation (RPP): The RPP should include the (1) taxonomy, (2) supply chain, (3) pricing, subsidy, and incentives, (4) organization, (5) certification, and (6) permits on hydrogen in Indonesia

#### **Key Activities:**

- a. Develop each article listed in the draft of government regulation based on the results of the rationalization matrix (Work Package 2)
- b. Attendance in FGD/workshop as a resource person to disseminate the draft of government regulation to related ministries, associations, and industries. This includes materials preparation, coordination with GIZ, moderation and note taking of the focus group discussions, and preparation of the decisions-made sheets.

### **2) WP2: Develop the rationalization matrix on low carbon hydrogen**

Content: The matrix ensures alignment with existing laws, evaluates economic, social, and environmental implications, and identifies potential regulatory redundancies or conflicts. The matrix should include criteria such as legal basis, urgency, implementation feasibility, economic and environmental impact, and stakeholder burden.

#### **Key Activities:**

- a. Define evaluation criteria (e.g. strategic alignment, legal consistency, feasibility, impact). Score and prioritize regulatory provisions
- b. Conduct regulatory framework analysis by reviewing existing laws and policies governing hydrogen and identifying gaps and overlaps with related regulations
- c. Attendance in FGD/workshop as a resource person to disseminate the rationalization matrix to related ministries, associations, and industries This includes materials preparation, coordination with GIZ, moderation and note

taking of the focus group discussions, and preparation of the decisions-made sheets.

### 3) WP3: Develop cost benefit analysis (CBA) of hydrogen subsidy and incentive

Content: This study will produce incentive priorities needed to encourage low-carbon hydrogen investment in Indonesia. The results of the CBA analysis will be the basis for the Government's decision-making in determining the optimal type of incentives for low-carbon hydrogen development in Indonesia.

#### Key Activities:

- a. Determining the framework for analysis
- b. Identifying the benefits obtained from the implementation of incentives
  - Direct benefits: increased investment
  - Indirect benefits: achievement of emission targets, potential long-term government revenue
- c. Identifying the costs arising from the implementation of incentives
  - Direct costs: government revenue foregone
  - Indirect costs: benefits lost from revenue foregone
- d. Determining the economic value (in monetary units) for each benefit and cost
- e. Calculating the present value of each benefit and cost that arises
- f. Comparing the total value of benefits and costs and drawing conclusions

Certain milestones, as laid out in the table below, are to be achieved during the contract term:

Milestones	Deadline (estimated)
Draft report of cost-benefit analysis	October 2025
Final report of cost-benefit analysis	January 2026
Draft report of rationalization matrix	March 2026
Draft report of GR on hydrogen	March 2026
Public consultation	May 2026
Final report of rationalization matrix	June 2026
Final report of GR on hydrogen submission and dissemination	Mar 2027

Additional work packages may arise on ad hoc level from the political partners and/or other projects under the Energy Programme. This contract hence functions as framework contract for the Energy Programme. Additional funds for additional work packages might be added as part of an option (see chapter 8 option: requirements).

Note: Reporting and executive summary are both in Bahasa Indonesia and English.

### 3. Concept

In the tender, the **tenderer is required to show how the objectives defined in Chapter 2** (Tasks to be performed) are to be achieved, if applicable under consideration of further method-related requirements (technical-methodological concept). In addition, the tenderer must describe the project management system for service provision.

Note: The numbers in parentheses correspond to the lines of the technical assessment grid.

### Technical-methodological concept

**Strategy (1.1):** The tenderer is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1 Context) (1.1.1). Following this, the tenderer presents and justifies the explicit strategy with which it intends to provide the services for which it is responsible (see Chapter 2 Tasks to be performed) (1.1.2).

The tenderer is required to present the actors relevant for the services for which it is responsible and describe the **cooperation (1.2.1)** with them.

The tenderer is required to describe the key **processes** for the services for which it is responsible and create an **operational plan** or schedule (1.4.1) that describes how the services according to Chapter 2 (Tasks to be performed by the contractor) are to be provided.

### Project management of the contractor (1.6)

The tenderer is required to explain its approach for coordination with the GIZ project (1.6.1). In particular, the project management requirements specified in Chapter 2 (Tasks to be performed by the contractor) must be explained in detail.

The tenderer is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the tender; the plan includes information on assignment dates (duration and expert months) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule (1.6.2).

## 4. Personnel concept

The tenderer is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 7), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points in the technical assessment.

### Team leader/Policy Expert

#### Tasks of the team leader

- Overall responsibility for the work packages of the contractor (quality and deadlines)
- Coordinating and ensuring communication with GIZ, partners and others involved in the project
- Personnel management of experts
- Regular reporting in accordance with deadlines

#### Qualifications of the team leader

- Education/training (2.1.1): Ph.D in law science
- Language (2.1.2): C2-level language proficiency in Indonesian and B2-level language proficiency in English
- General professional experience (2.1.3): 10 years of professional experience in the policy and regulation of sustainable energy management

- Specific professional experience (2.1.4): 8 years in renewable energy, energy storage specifically within policy and regulation aspects
- Leadership/management experience (2.1.5): 5 years of management, leadership experience as project team leader, manager in a company, institution
- Regional experience (2.1.6): n.a.
- Development cooperation (DC) experience (2.1.7): 1 (one) year with DC project
- Other (2.1.8): Affiliated as a council of experts in 2 (two) Indonesian association which relevant to the assignment, e.g., Indonesian Renewable Energy Society, Indonesian Electricity Society (MKI), Indonesian Energy Conservation and Efficiency Society (MASKEEI)

### **Key expert 1 (Economy Expert)**

#### Tasks of key expert 2

Overall responsibility for the advisory within economy scope, including but not limited to area with focus in energy economy, macro economy, energy finance, sustainable finance, financial modeling, etc.

#### Qualifications of key expert 2

- Education/training (2.2.1): Master's degree in economics
- Language (2.2.2): C2 -level language proficiency in Indonesian and B2-level language proficiency in English
- General professional experience (2.2.3): 10 years of professional experience in economics
- Specific professional experience (2.2.4): 6 years in oil and gas, mining, industry, power, renewable energy sector specifically within economy and financial aspects
- Leadership/management experience (2.2.5): n.a.
- Regional experience (2.2.6): 6 years in projects in Indonesia (country)
- Development cooperation (DC) experience (2.2.7): n.a.
- Other (2.2.8): n.a.

### **Key expert 2 (Technical Expert)**

#### Tasks of key expert 2

Overall responsibility for the advisory within technical scope, including but not limited to area with focus in hydrogen system and technology, power system and technology, renewable energy system and technology, energy production and utilisation, industry process, etc.

#### Qualifications of key expert 2

- Education/training (2.3.1): Master's degree in engineering
- Language (2.3.2): C2 -level language proficiency in Indonesian and B2-level language proficiency in English
- General professional experience (2.3.3): 10 years of professional experience in engineering
- Specific professional experience (2.3.4): 6 years in oil and gas, mining, industry, power, renewable energy sector specifically within engineering aspect
- Leadership/management experience (2.3.5): n.a.
- Regional experience (2.3.6): 6 years in projects in Indonesia (country)
- Development cooperation (DC) experience (2.3.7): n.a.
- Other (2.3.8): n.a.



## **Short-term expert pool consists of up to 2 (two) junior experts and 2 (two) senior experts**

The bidder must provide a clear overview of all proposed short-term experts and their individual qualifications. The bidder shall have the opportunity to include additional short-term experts with comparable qualifications in the short-term expert pools.

The short-term expert pool **comprises of flexible- and on-demand technical advisory service tasks**. Therefore, the expert's names in the short-term expert pool are not fixed and subject to change according to the specific profile needed for each task. The openness and flexibility to include additional short-term experts is important for successful implementation of the project due to specific and sometimes changing demands in the partner countries. CVs of the new experts must be approved by GIZ.

For the technical assessment, an average of the qualifications of all specified members of the expert pool is calculated. Please send exemplary CVs for each type of short-term pool member (see below Chapter 7 Requirements on the format of the bid) for the assessment. The tenderer shall propose experts aside from the Key Experts which are relevant to the tasks in Chapter 2.

It is expected that the individuals of each pool complement each other in terms of experiences and qualifications. **The bidder is asked to offer one average price for each types of short-term expert pool.**

Efforts from internships cannot be taken into consideration here (applies for all experts and pools).

### **Tasks of the short-term expert pool**

- Provide advisory service in the regulatory frameworks and technical component with focus, including but not limited to in hydrogen, renewable energy, power system planning, industrial decarbonisation, etc
- Act as a resource person during workshop/FGD/meeting

### **Qualifications of the short-term junior expert pool**

- Education/training (2.6.1): 2 (two) two experts with bachelor's degrees in one of these following majors, e.g., engineering, geophysics, sustainable energy management economics, law
- Language (2.6.2): 2 (two) experts with C2-level language proficiency in Indonesian and B2-level language proficiency in English
- General professional experience (2.6.3): 2 (two) experts with 2 (two) years of professional experience in one of these following topics, e.g., policy, technical, economic which is relevant to the abovementioned scope of assignment.

### **Qualifications of the short-term senior expert pool**

- Education/training (2.7.1): 2 (two) experts with with master's degree in one of these following majors, e.g., engineering, geophysics, sustainable energy management economics, law
- Language (2.7.2): 2 (two) experts with C2-level language proficiency in Indonesian and B2-level language proficiency in English



- General professional experience (2.7.3): 2 (two) experts with 6 (six) years of professional experience in one of these following topics, e.g., policy, technical, economic which is relevant to the abovementioned scope of assignment.

The tenderer must provide a clear overview of all proposed short-term experts and their individual qualifications. Additional experts might be determined later based on discussion with GIZ, the consultant and the stakeholders relevant to the task.

## 5. Costing requirements

### Assignment of personnel and travel expenses

Per-diem and overnight accommodation allowances are reimbursed as a lump sum up to the maximum amounts permissible under tax law for each country as set out in the country table in the circular from the German Federal Ministry of Finance on travel expense remuneration (downloadable at <https://www.bundesfinanzministerium.de>).

Accommodation costs which exceed this up to a reasonable amount and the cost of flights and other main forms of transport can be reimbursed against evidence

All business travel must be agreed in advance by the officer responsible for the project.


### Sustainability aspects for travel

GIZ has undertaken an obligation to reduce greenhouse gas emissions (CO<sub>2</sub> emissions) caused by travel. GIZ would like to reduce greenhouse gas emissions (CO<sub>2</sub> emissions) caused by travel. When preparing your tender, please incorporate options for reducing emissions, such as selecting the lowest-emission booking class (economy) and using means of transport, airlines and flight routes with a higher CO<sub>2</sub> efficiency. For short distances and travel inside Java island travel by train (executive class) or e-mobility should be the preferred option.

If they cannot be avoided, CO<sub>2</sub> emissions caused by air travel should be offset. GIZ specifies a budget for this, through which the carbon offsets can be settled against evidence.

There are many different providers in the market for emissions certificates, and they have different climate impact ambitions. The [Development and Climate Alliance \(German only\)](#) has published a [list of standards \(German only\)](#). GIZ recommends using the standards specified there.

### Specification of inputs

 Fee days	Number of experts	Number of days per expert	Total	Comments
<b>Work Package 1</b>				
<b>Designation of Team Leader</b>	1	30	30	
<b>Designation key expert 1</b>	1	20	20	
<b>Designation key expert 2</b>	1	20	20	

Designation of senior short-term expert pool	2	10	20	
Designation of junior short-term expert pool	2	10	20	
<b>Work Package 2</b>				
Designation of Team Leader	1	30	30	
Designation key expert 1	1	20	20	
Designation key expert 2	1	20	20	
Designation of senior short-term expert pool	2	10	20	
Designation of junior short-term expert pool	2	10	20	
<b>Work Package 3</b>				
Designation of Team Leader	1	0	0	
Designation key expert 1	1	10	10	
Designation key expert 2	1	10	10	
Designation of senior short-term expert pool	2	10	20	
Designation of junior short-term expert pool	2	10	20	
<b>Travel expenses</b>	<b>Quantity</b>	<b>Number per expert</b>	<b>Total</b>	<b>Comments</b>
Fixed travel budget (The tenderer should describe the number of trips, travel destinations and time periods as best as possible)	Up to	Up to 4 experts	EUR 13,645	A budget is earmarked for travel to the following countries: Indonesia.  A fixed budget of EUR 13,645 is earmarked for settling travel

				<p>expenses against evidence.</p> <p>You can find further information on the travel expense budget in the 'Price schedule' document. Please use the 'Explanations' column in the price schedule to break down the individual items. Settlement is possible only until the budget is depleted.</p> <p>This budget could be used prior to GIZ's approval.</p>
<b>Carbon offsets for flights</b>	<b>Up to</b>	Up to 4 experts	EUR 1,600	A fixed budget of EUR 1,600 is earmarked for settling carbon offsets against evidence.
<b><u>Other costs</u></b>	<b><u>Number</u></b>	<b><u>Price</u></b>	<b><u>Total</u></b>	<b><u>Comments</u></b>
<b>Flexible remuneration</b>	<b>1</b>	IDR 178.000.000	EUR 9,627	<p>A budget of EUR 9,627 is foreseen for flexible remuneration. Please incorporate this budget into the price schedule.</p> <p>Use of the flexible remuneration item requires prior written approval from GIZ.</p>

## 6. Inputs of GIZ or other actors

GIZ and/or other actors are expected to make the following available:

The responsibility to plan and to execute any event related (i.e.: venue and meeting pax) to every activity will be borne by GIZ, the consultant will only be responsible for the substance. Exception may be made upon discussion and agreement between GIZ and the consultant.

## 7. Requirements on the format of the tender

The structure of the tender must correspond to the structure of the ToR. In particular, the detailed structure of the concept (Chapter 3) should be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). The tender must be legible (font size 11 or larger) and clearly formulated. It must be drawn up in english (language).

The complete tender must not exceed 10 pages (excluding CVs). If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment. External content (e.g. links to websites) will also not be considered. Tender documents must be submitted in hard copy, enclosed in a sealed envelope, to the GIZ Indonesia Country Office.

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages each. They must clearly show the position and job the proposed person held in the reference project and for how long.

Please calculate your financial tender based exactly on the parameters specified in Chapter 5 Quantitative requirements. The contractor is not contractually entitled to use up the days, trips, workshops or budgets in full. The number of days, trips and workshops and the budgets will be contractually agreed as maximum limits. The specifications for pricing are defined in the price schedule.

## **8. Option**

After the services put out to tender have been completed, important elements of these tasks can be continued or extended. Specifically:

Type and scope

The contractor is responsible for providing the following optional services:

- Advisory services which are translated into knowledge products, for example, but not limited to a follow-up study on the cost-benefit analysis on hydrogen incentives and subsidies, technical study on hydrogen, etc.
- Capacity building which can be a form of workshops, FGDs, or dissemination events.

## **Requirements**


GIZ reserves the right to award contracts for additional services to the successful consultant in this procedure by means of a follow-on contract within the context of the basic project. The option will be exercised by means of a contract extension based on the individual approaches already offered. The start date of the option is planned for 01.04.2027.

After the services put out to tender have been completed, important elements of these tasks can be continued or extended, if:

- a. The main contract has been concluded, the project term is extended by the commissioning parties of GIZ a follow-up project or new closely related energy project is commissioned, or additional co-financing can be secured, or
- b. The scope of activities under the relevant Output are to be extended. These may include potential follow-up studies on similar topics, or an expansion of activities and services listed under the work packages under Chapter 2.

In addition, an extension or continuation of tasks will depend on new requests from political partners, knowledge gaps, or new arising needs from projects within the GIZ Energy Programme or other GIZ bilateral (in Asia), regional, global or sectoral programmes.

## Quantitative requirements for the optional services

Designation of TL	1	45	45	
Designation of key expert	2	35	70	
short-term expert pool	4	25	100	
<b>Travel expenses</b>	<b>Quantity</b>	<b>Number of days per expert</b>	<b>Total</b>	<b>Comments</b>
 <b>Fixed travel budget</b>	Up to	Up to 4 experts	EUR 13,645	<p>A budget is earmarked for travel to the following countries: Indonesia.</p> <p>A fixed budget of EUR 13,645 is earmarked for settling travel expenses against evidence.</p> <p>You can find further information on the travel expense budget in the 'Price schedule' document. Please use the 'Explanations' column in the price schedule to break down the individual items. Settlement is possible only until the budget is depleted.</p>
<b>Carbon offsets for flights</b>	Up to	Up to 4 experts	EUR 1,600	A fixed budget of EUR 1,600 is earmarked for settling carbon offsets against evidence.
<b><u>Other costs</u></b>	<b><u>Number</u></b>	<b><u>Price</u></b>	<b><u>Total</u></b>	<b><u>Comments</u></b>
<b>Flexible remuneration</b>	1	IDR 178.000.000	EUR 9,627	<p>A budget of EUR 9,627 is foreseen for flexible remuneration. Please incorporate this budget into the price schedule.</p> <p>Use of the flexible remuneration item requires prior written approval from GIZ.</p>

## 9. Outsourced processing of personal data

N/A

## 10. Annexes

N/A