## Table of Allocated Budget and Details of Consulting Expenses

- 1. Project name The project for evaluating the potential of the railway production supply chain, designing conceptual frameworks, and formulating specific technical specifications for railway manufacturing in compliance with European standards in Thailand.
- 2. Project Owner Agency Rail Technology Research and Development Agency (Public Organization)
- 3. Allocated Budget Amount 85,000,000.00 THB (Eighty-five million Thai Baht Only)
- 4. Date of Determination of the Median Price (Reference Price) as of ...... with an amount of 84,810,000.00 THB (Eighty-four million eight hundred and ten thousand Thai Baht Only)
- 5. Personnel Remuneration 55,610,000 THB (Fifty-five million six hundred ten thousand Thai Baht Only)
  - 5.1 Type of Consultant Engineering Professional Group
    - 5.1.1) Key Personnel 54,000,000.00 THB (Fifty-four million Thai Baht Only)
    - 5.1.2) Supporting Personnel 1,610,000.00 THB (One million six hundred ten thousand Thai Baht Only)
  - 5.2 Consultant Oualifications

The consultant must meet the following basic qualifications:

- 5.2.1. Having legal competence;
- 5.2.2.Not being bankrupt
- 5.2.3. Not being in the process of dissolving a business;
- 5.2.4.Not being a person who is suspended from submitting proposals or entering into contracts with government agencies due to failing to meet the performance evaluation criteria of the operator as prescribed by the Minister of Finance, as published in the information network system of the Comptroller General's Department;
- 5.2.5. Not being a legal entity listed on the list of work abandoners and having been notified on the Comptroller General's Department's information network system,

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- including a legal entity where the work abandoner is a partner, managing director, executive, or person in charge of operations in that entity;
- 5.2.6.Being possesses the qualifications and not have any disqualifications as specified by the Procurement and Supplies Management Policy Committee, as published in the Government Gazette:
- 5.2.7.Being a legal entity with a professional background in the specified field of work;
- 5.2.8.Not being an entity that granted immunity or privilege which could refuse to submit to the jurisdiction of Thai courts, unless the government of the proposer has issued an order waiving such immunity or privilege.
- 5.3. Due to the complexity of the project's operational requirements, the consultant must also meet the following specific qualifications:
  - 5.3.1. Having the knowledge, skill, ability and experience in high level about train design related to the objectives and scope of the consulting project, however not conducting the business about train production.
  - 5.3.2. Having Railway design works that comply with European standards which have been produced and are in operation for revenue service abroad. It must be demonstrated that the company owns the technical and technological expertise for design, production, and development of the related components. Additionally, the company must be ready to transfer and deliver the technology and intellectual property rights as agreed.
  - 5.3.3. Having the experience in manufacturing process design, assembly design, and engineering design of rolling stock for international markets.
- 5.4. The consultant must provide details of key personnel and supporting staff for the following positions, with qualifications in terms of education and work experience at least as specified.

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Positions	Qualification	Experience (years)	
1) Project Manager	Master of Engineering	≥ 21 years	
2) Deputy Project Manager	Master of Engineering	≥ 11 years	
3) Engineering Specialist 1	Master of Engineering	≥ 11 years	
(Mechanical)	(Mechanical Engineer or related field)	2 11 years	
4) Engineering Specialist 2	Master of Engineering	≥ 11 years	
(Electrical Power)	(Electrical Power Engineer or related field)	2 11 years	
5) Engineering Specialist 3	Master of Engineering	11.0000	
(Structure and Safety)	(Structure and Safety or related field)	≥ 11 years	
6) Engineering Specialist 4	Master of Engineering	11	
(Controlled)	(Controlled or related field)	≥ 11 years	
7) Engineering Specialist 5	Master of Engineering	. 11	
(Railway System)	(Railway System or related field)	≥ 11 years	
8) Engineering Specialist 6	Master of Engineering		
(Simulation)	(in related field)	≥ 11 years	
	Master of Architecture	≥ 11 years	
9) Design Specialist	(interior design or related field)		
10) Material Specialist	Master's degree (in related field)	≥ 11 years	
11) Manufacturing Specialist	Master's degree (in related field)	≥ 11 years	
12) Industrial Development			
Specialist	Master's degree (in related field)	≥ 11 years	
	Master of Economics		
13) Business Development Specialist	(Business Development or related field)	≥ 11 years	
14) Feasibility Study Analyze			
Specialist	Master's degree (in related field)	≥ 11 years	
15) Branding and Marketing			
Specialist	Master's degree (in related field)	≥ 11 years	
Support Staff		1	
Positions	Qualification	Experience (years)	
1) Analyze 1	Bachelor's degree (in related field)	≥ 2 years	
2) Analyze 2	Bachelor's degree (in related field)	≥ 2 years	
3) Analyze 3	Bachelor's degree (in related field)	≥ 2 years	
4) Analyze 4	Bachelor's degree (in related field)	≥ 2 years	
5) Draft man 1	Bachelor's degree (in related field)	≥ 2 years	
6) Draft man 2	Bachelor's degree (in related field)	≥ 2 years	
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Number of Consultants: 15 Key Personnel and 7 Supporting Personnel.

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- 6. Expenditure Budget for Meeting Operation 1,000,000.00 THB (One million Thai Baht Only)
- 7. Expenditure Budget for Report Preparation, Presentations, and Design Documentation 1,000,000.00 THB (One million Thai Baht Only)
- 8. Expenditure for Coordination and Data Collection 2,000,000.00 THB (Two million Thai Baht Only)
- 9. Expenditure for Field Surveying 1,200,000.00 THB (One million two hundred thousand Thai Baht Only)
- 10. Expenditure for Creating 3D CAD Engineering Drawings and Other Electronic Media. 2,000,000.00 THB (Two million Thai Baht Only)
- 11. Software License Fees 1,000,000.00 THB (One million Thai Baht Only)
- 12. Expenses for International Travel 4,000,000.00 THB (Four million Thai Baht Only)
- 13. Other Expenses (Including 15% Government Institution Fees) 17,000,000.00 THB (Seventeen million Thai Baht Only)
- 14. List of Individuals Responsible for Determining the Median Price

14.1.	Mr. Ratcharnon Apinyayanyong	Committee Chair
14.2.	Assoc. Prof. Wichai Siwakosit	Committee
14.3.	Mr. Kitiphan Nutayakul	Committee
14.4.	Mr. Kantapon Wannawat	Committee
14.5.	Mr. Na-thiti Loahavilai	Committee

## 15. Source of the Determination of the Median Price (Reference Price)

- 15.1. Criterion for Determining the Consultant's Remuneration Rates for Thai Consultants as per the Office of the Prime Minister's Secretariat's Urgent Circular Letter No. นร0506/ว. 128, dated August 8, 2013, regarding the Guidelines for Median Price for Hiring Consultants.
- 15.2. Criterion for Expense Rates and Procedures for Considering Annual Budget Expenditures for Training, Seminars, Advertising, Public Relations, Consultant Hiring,

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and Overseas Official Travel Expenses, Budget Standardization Division 1, Budget Bureau, December 2023.

15.3. Guidelines for Hiring Consultants, Public Procurement Division, Comptroller General's Department, September 2022, as per Letter No. กค (กวจ) 0405.3/ว 1203, dated September 27, 2022

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## 16. Median Price Table and Details of Consultant Hiring Expenses.

Positions	Qualification	Experience (years)	Reference Price per unit	Units	Total
1) Key Staffs					
1.1) Project Manager	Master of Engineering	≥ 21 years	450,000	10	4,500,000
1.2 Deputy Project Manager	Master of Engineering	≥ 11 years	400,000	10	4,000,000
1.3) Engineering Specialist 1 (Mechanical)	Master of Engineering (Mechanical Engineer or related field)	≥ 11 years	350,000	10	3,500,000
1.4) Engineering Specialist 2 (Electrical Power)	Master of Engineering (Electrical Power Engineer or related field)	≥ 11 years	350,000	10	3,500,000
1.5) Engineering Specialist 3 (Structure and Safety)	Master of Engineering (Structure and Safety or related field)	≥ 11 years	350,000	10	3,500,000
1.6) Engineering Specialist 4 (Controlled)	Master of Engineering (Controlled or related field)	≥ 11 years	350,000	10	3,500,000
1.7) Engineering Specialist 5 ด้านระบบราง	Master of Engineering (Railway System or related field)	≥ 11 years	350,000	10	3,500,000
1.8) Engineering Specialist 6 (Simulation)	Master of Engineering	≥ 11 years	350,000	10	3,500,000
1.9) Design Specialist	Master of Architecture (interior design or related field)	≥ 11 years	350,000	10	3,500,000
1.10) Material Specialist	Master's degree (in related field)	≥ 11 years	350,000	10	3,500,000
1.11) Manufacturing Specialist	Master's degree (in related field)	≥ 11 years	350,000	10	3,500,000
1.12) Industrial Development Specialist	Master's degree (in related field)	≥ 11 years	350,000	10	3,500,000

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Positions	Qualification	Experience (years)	Reference Price per unit	Units	Total
1.13) Business Development Specialist	Master of Economics (Business Development or related field)	≥ 11 years	350,000	10	3,500,000
1.14) Feasibility Study Specialist	Master's degree (in related field)	≥ 11 years	350,000	10	3,500,000
1.15) Branding and Marketing Specialist	Master's degree (in related field)	≥ 11 years	350,000	10	3,500,000
Total Budget for Key Staffs (1)				54,000,000	

2) Support Staffs					
Positions	Qualification	Experience	Reference	Units	total
		(years)	Price per unit		
2.1) Analyze 1	Bachelor's degree (in related field)	≥ 2 years	23,000	10	230,000
2.2) Analyze 2	Bachelor's degree (in related field)	≥ 2 years	23,000	10	230,000
2.3) Analyze 3	Bachelor's degree (in related field)	≥ 2 years	23,000	10	230,000
2.4) Analyze 4	Bachelor's degree (in related field)	≥ 2 years	23,000	10	230,000
2.5) Draft man 1	Bachelor's degree (in related field)	≥ 2 years	23,000	10	230,000
2.6) Draft man 2	Bachelor's degree (in related field)	≥ 2 years	23,000	10	230,000
2.7) Site Staff	Bachelor's degree (in related field)	≥ 2 years	23,000	10	230,000
Total Budget for Support Staffs (2)				1,610,000	
Total Budget for Staffs (1) + (2)				55,610,000	

3) Direct Cost			
ltem	Rate /Unit	Unit	Total
3.1) Travel expenses for international coordination	4,000,000	L.S.	4,000,000
3.2) Expenses for organizing meetings	1,000,000	L.S.	1,000,000
3.3) Expenses for preparing reports, presentation materials, and supporting documents	1,000,000	L.S.	1,000,000
3.4) Expenses for coordination and data collection	2,000,000	L.S.	2,000,000
3.5) Expenses for conducting six field surveys	200,000	6	1,200,000

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Item	Rate /Unit	Unit	Total
3.6) Expenses for creating 3D CAD engineering designs and other electronic media	2,000,000	L.S.	2,000,000
3.7) Software	1,000,000	L.S.	1,000,000
3.8) Miscellaneous expenses	17,000,000	L.S.	17,000,000
Direct Costs			29,200,000
Total (1) + (2) + (3)			84,810,000

## Committee for Determining the Median Price

(Mr. Ratcharnon Apinyayanyong)

Committee Chair

(Assoc. Prof. Wichai Siwakosit)

Committee

(Mr. Kitiphan Nutayakul)

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Committee

(Mr. Kantapon Wannawat)

Committee

(Mr. Na-thiti Loahavilai)

Committee

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