



Request for Proposal (RFP)
Coal Impact Tracker Data Input and Analysis [Extended]

Institute for Essential Services Reform

Tebet Barat Dalam VIII No. 20A-B

Jakarta Selatan

Indonesia

~~21~~-28 November 2022

1. Background

Institute for Essential Services Reform (IESR) is a think-tank in the field of energy and environment. IESR encourages transformation into a low-carbon energy system by advocating a public policy based on data-driven and scientific studies, conducting capacity development assistance, and establishing strategic partnerships with non-governmental actors.

Part of IESR's policy advocacy focuses on enabling a rapid transition of Indonesia's energy system from a fossil-based system into one with renewables and low-carbon technologies. One of the key milestones in the energy transition is the realization of coal power plant early retirement and integration of the just principle in the transition process. A good mitigation strategy for energy transition should be based on the facts and data of the current status of the coal industries and coal power plants, encompassing the social, economic, environmental, and even technical aspects. The principle of "just transition" should be the heart of the process, and as the transformation of the energy system progresses, the evolution of the economy of coal-producing regions, the availability of jobs, and the impact on the environment are all being addressed optimally with sufficient cost.

To support the objective of the advocacy above, IESR would develop an informative, intuitive, and compelling tool for the visualization & analysis/insights on the coal transition process in Indonesia and its impact on the country, namely the **Coal Impact Tracker**. The tool would enable the user (policymaker, industries, academics, CSOs, and communities) to quickly gain insights and use the information provided for their benefit, including preparing for the process of the energy (coal) transition itself. IESR intends to hire 1 (one) team of consultants, which might consist of 1-3 individuals, to work on data collecting, processing, and projection analysis of coal transition and phase-out impact for Indonesia up to the level of *municipality/regency* using selected indicators. The hired consultant will work under the IESR Coal Impact Tracker Team, consisting of the Program Manager, Project Coordinator, Researchers, and Knowledge Management Team.

2. Objective

Consultant is expected to be involved in the different phases of the project, including but not limited to data collection, data input, data processing, developing projection scenarios, running analysis, and building interpretation & recommendation from analysis results. The overall tasks and workloads of the consultant are as follows:

- a. Collecting, updating, and identifying data sources from multiple coal transition indicators/parameters (majority of the indicators and the 70+ municipalities/regencies (see Appendix C) have been identified by IESR) (see Appendix A)
- b. Input said data into a Microsoft Excel database, divided per indicator/parameter
- c. Data visualization (determine visualization style of the said data i.e. Sankey diagram, donut chart, bar chart, etc)
- d. Identify, formulate a methodology to develop said data, and prepare the subsequent data for coal transition projection in 3 (three) fixed scenarios and 1 (one) user-defined scenarios
- e. Run projection analysis (*i.e.* Regression Analysis) using suitable statistical tools or software to project each indicator of coal transition impact
- f. Identify and describe relation cross-indicators and cross-region (see Appendix B)

- g. Build analysis-result interpretation and recommendation
- h. Communicate collected data, formulas, and cross-relations patterns to the website developer
- i. Supervise and quality check the presented data in the website development phase

3. Project Scope

The data input, analysis, and projection will include selected municipalities and regencies in Indonesia, especially coal-producing regions (coal mines) and regions with located power plants (PLTU). See appendixes A and B for further details.

4. Intellectual Property Rights and Confidentiality

IESR will be the sole proprietor of the data, methodology, and projections from the aforementioned objectives. The contractor should recommend all technology required for developing and running the projections based on project needs and expertise. Disclosing or using any information/tools for any purpose beyond the scope of work without consent and unbeknown by IESR is expressly forbidden.

5. Budget

IESR intends to make one award for the execution of this project. The final award amount will be contingent on the submission of a detailed and reasonable proposal to be approved by IESR. Expected award to range from IDR 18 to IDR 25 million.

All proposals must include proposed costs (in Indonesian Rupiah/IDR) to complete the tasks described in the project scope. Costs should be stated as one-time or non-recurring costs. All software/licensing required to build the site will be directly covered by the aforementioned budget.

IESR intends to pay the selected contractor on a fixed-fee, milestone-based payment schedule. Shall applicants prefer an alternate payment timeline, the applicants should propose a fixed fee and separate the total hours and amounts associated with the Planning and Discovery Phase, Identification Phase, Projection Phase, and Quality checking phase. The sum of which would be the total Maximum Payable Amount (MPA) for the contract.

6. Required Skills and Experience

The qualifications of the consultant are as follows:

- a. University degree in statistics, development economics, mathematics, informatics, engineering or relevant studies
- b. Specific knowledge regarding social-economic statistics is required
- c. Advanced skills in Microsoft Excel or equivalent
- d. Ability to run statistical analysis and projection (including regression analysis) using statistical software including one of the following but not limited to STATA, E-views, R, Matlab
- e. Able to provide integrated data-driven insights, analysis, and interpretation
- f. Excellent communication and the ability to work in teams
- g. Excellent attention to detail

7. The workload

Consultant is expected to complete the project by the end of March 2023, consultant is given the freedom to determine allocated time for each activity but should be within the project deadline

Activities	Estimated mandays allocation until completion of project
Progress consultancy with IESR Coal Impact Tracker Team and web developer (recurring weekly)	3 mandays
Data identifying and collection (see Appendix A)	5 mandays
Data input to Microsoft Excel database (see Appendix A)	10 mandays
Data visualization	1 mandays
Relation for cross-indicators and cross-region (see Appendix B)	5 mandays
Develop a methodology for projection scenarios	3 mandays
Run projection analysis	4 mandays
Build analysis-result interpretation and recommendation	7 mandays
Project finalization	7 mandays

8. Outcomes

1. Database(s) of collected data of coal transition impact indicators
2. Projection(s) of coal transition and phase-out scenarios impact social, economic, environmental, and health impact
3. Description and map of relations between indicators and/or regions
4. Interpretation and recommendation for regions in coal transition and coal phase-out scenarios based on data analysis and projection result
5. Communication and supervising the web development from the data standpoint

9. Timeline and Deliverables

4 months (December 2022 - March 2023)

Outcome 1 (2nd week of December 2022)

Outcome 2 (3rd week of January 2023)

Outcome 3 & 4 (3rd week of February 2023)

Outcome 5 (4th week of March 2023)



10. Proposal Submission and Inquiry

The proposals shall include a general introduction, proposed approach or methodology, relevant resume, and proposed budget. The proposal will be accepted until 12:00 p.m. Indonesian Western Standard Time (WIB, GMT+07) on Sunday, ~~27 November~~ 2 December 2022. Kindly address Program Manager Energy Transformation IESR, Deon Arinaldo, at deon@iesr.or.id (CC: irwan@iesr.or.id ilham@iesr.or.id & rahmat@iesr.or.id) for inquiries and submissions. Please put “**RFP Consultant - Coal Impact Tracker Data Input and Analysis**” in the subject line.

Evaluation of proposals will be conducted from ~~28 to 29 October~~ 3 to 5 December 2022. Top qualified service providers from the proposed document and quotation will be shortlisted. They might be invited to a follow-up session within this time window to obtain any necessary clarification on items described in the proposals.

The selection decision for the winning bidder will be made by ~~29 November~~ 6 December 2022. Upon notification, the contract negotiation with the winning bidder will begin immediately and must proceed extra quickly to meet the project timeline.

Appendix A

DATA COLLECTION

Collecting, updating and input data sources from multiple coal transition indicators/parameters, t

The following data should be added:

- Historical coal market demand (in Mt) (international and domestic market) (national level)
- Coal power plant (PLTU) co-firing quantity (existing and proposed) (municipality level)
- LCOE price projection of PLTU (national level)
- Other parameters that could determine coal prices and demands (international and domestic market)

DATA INPUT & UPDATE

The following data is already identified by IESR and should be inputted (and updated when possible) in the database:

- PDRB produksi harga konstan
- Laju pertumbuhan PDRB produksi harga konstan
- Total produksi listrik
- Total pembangkitan listrik dari batubara
- Persentase batubara di energy mix
- Kapasitas pembangkit batubara yang beroperasi
- Jumlah PLTU yang beroperasi
- Kapasitas pembangkit batubara yang akan beroperasi (izin sudah terbit/akan diperbarui/belum diperbarui)
- Jumlah PLTU (PLN + swasta) yang akan beroperasi (izin sudah terbit/akan diperbarui/belum diperbarui)
- Jumlah tambang yang beroperasi
- Produksi batubara
- Cadangan batubara
- Emisi tahunan tambang batubara existing
- Emisi tahunan tambang batubara proposed
- Statistik kualitas lingkungan hidup (udara, air, tutupan lahan)
- Indeks kualitas lingkungan hidup (udara, air, tutupan lahan)
- Emisi tahunan PLTU existing
- Emisi tahunan PLTU proposed
- Jumlah pekerja tambang
- Jumlah pekerja PLTU
- Gaji pekerja tambang
- Gaji 17 sektor lain
- Tingkat pengangguran terbuka (TPT)
- Sektor ekonomi unggulan (3 besar) pakai PDRB
- Tingkat kemiskinan (persentase penduduk miskin)
- Tingkat prevalensi kanker atau ISPA



Appendix B

Indicators of coal transition impacts and conditions between regions can be interrelated, for example how the amount of coal production in one region may affect GRDP conditions in other regions. Some possible related indicators are as follows, **but not limited to:**

- Amount of coal production - GRDP coal producing region and GRDP coal power plant located region
- Number of operated coal power plant - Coal demands and prices

The consultant is expected to map possible relationships or linkages between indicators in the region and/or inter-region.

Appendix C

1	Muara Enim (Tanjung Enim)	36	Sukabumi	70	Gorontalo
2	Lahat	37	Priok	71	Minahasa Utara
3	Samarinda	38	Semarang		
4	Kotabaru	39	Langkat		
6	Tabalong	40	Cilacap		
7	Tanjung Bara	41	Barru		
8	Banjar Baru	42	Lombok Barat		
9	Kutai Timur	43	Sintang		
10	Kutai Barat	44	Sanggau		
11	KuKar	45	Berau		
12	Paser	46	Bengkayang		
13	Barito	47	Jayapura		
14	Kotawaringin	48	Jejara		
15	Kapuas	49	Pelabuhan Ratu		
16	Samarinda	50	Indramayu		
17	Berau	51	Tuban		
18	Mahakam Ulu	52	Rembang		
19	Meulaboh	53	Pacitan		
20	Singkil	54	Bali		
21	Aceh	55	Deli Serdang		
22	Nagan Raya	56	Musi Banyuasin		
23	Sawahlunto	57	Bekasi		
24	Tapanuli	58	Tanah Laut		
25	Sorong	59	Balikpapan		
26	Padang Lawas	60	Padang		
27	Pandeglang	61	Pekanbaru		
28	Lebak	62	Bengkulu		
29	Bayah	63	Bintan		
30	Riau	64	Ombilin		
31	Tanah Bumbu	65	Lampung Selatan		
32	Probolinggo (Paiton)	66	Tabalong		
33	Cilegon (Suralaya)	67	Batam		
34	Tangerang	68	Kendari		

