



16 June 2025

Request for quotation (RFQ) – UK PACT Expert Deployment

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| RFQ title | Developing a tool for electric power system cost simulation |
| RFQ issue date | 16/06/2025 |
| Terms of reference | The services to be delivered are detailed in the attached Schedule. |
| Project title | Developing a tool for electric power system cost simulation |
| Close date and time | 14/07/2025 09:00 BST |
| Details for submission | Expertdeployments@ukpact.co.uk |

Palladium as the delivery partner for the Foreign, Commonwealth and Development Office (FCDO) funded UK Partnering for Accelerate Climate Transitions (UK PACT) programme invites you to submit a quotation for the services detailed in this RFQ.

Please forward your quote in accordance with the Details for Submission above by the Close Date and Time. This RFQ includes the following materials:

Schedule 1 – Terms of Reference

Schedule 2 – Instructions for submission

Schedule 3 – Terms and Conditions

Annex I – RFQ Response Form

Annex II – Budget and workplan template

We look forward to your response.

Schedule 1 - Terms of Reference

| 1.1. Overview of requirements | |
|-------------------------------|---|
| Name of project | Developing a tool for electric power system cost simulation |
| Country/region | Philippines |
| Proposed start date | 18/08/2025 |
| Proposed end date | 17/02/2026 |

1.2 Context and scope of work

Background

The UK PACT (Partnering for Accelerated Climate Transitions), funded by the UK Government through its International Climate Finance (ICF) portfolio, partners with Official Development Assistance (ODA) eligible countries that have significant emissions reduction potential. The programme supports low-carbon development and clean growth transitions by responding to identified demands from partner governments and providing grants for capacity-building projects in priority areas, managed by selected implementing partners.

The Philippines has set ambitious targets under its Philippines Energy Plan, aiming to increase the share of renewable energy (RE) in the power generation mix to 35% by 2030 and 50% by 2040. To support these goals, the Department of Energy (DOE) has launched three rounds of the Green Energy Auction Program (GEAP), which could result in the addition of up to 22 GW of RE capacity by 2035. GEAP 5 is anticipated to generate significant economic benefits, including job creation and industrial growth within the renewable energy sector, further aligning with the Philippines' commitment to a sustainable and inclusive energy future.

While the Energy Regulatory Commission (ERC) and other agencies have already conducted cost assessments for generation planning and tariff setting, a more comprehensive and scenario-based approach is needed to support evidence-based decisions as RE penetration increases.

Objectives

This intervention will support the development of a Philippines-specific power system cost simulation tool tailored to ERC's regulatory requirements. The tool will enable a scenario-based analysis that integrates RE generation costs, system-level impacts, and tariff implications. Where appropriate, this project will embed technical expertise within ERC to ensure institutional ownership, capacity building, and sustained use of the tool in regulatory decision-making.

Approach

This project aims to deliver a tool for electric power system cost simulation, with at least three renewable energy penetration scenario simulations. This intervention includes the following key activities and tasks:

Activity 1. Collect data and develop a tool for determining the impact of new RE projects and other system-wide inputs on the cost of electricity to consumers

- Aggregate historical and forecasted electricity demand, supply mix, grid constraints, fuel costs, technology costs (CAPEX & OPEX) and price trends from ERC and relevant market participants. Include representative grid constraints and transmission cost assumptions (e.g., connection, congestion, reinforcement), using actual utility data where available, as well as electricity consumption data to identify how target groups are impacted by electricity costs differently. The resolution of data and model will be agreed upon by ERC. The tool to be developed will be tailored to ERC's regulatory needs and may be implemented in a format deemed most appropriate for usability and functionality (e.g. spreadsheet-based or other software formats, similar to those mentioned in the following bullet).
- Where relevant, reference outputs from energy modelling software used by ERC such as PLEXOS, Power System Simulation Software (PSSS) and Bloomberg Intelligence, among others, to inform transmission cost and other assumptions.
- In consultation with ERC, define use cases and modelling parameters for the modelling tool. This may include capacity factors, grid integration costs, ancillary services, RE policy provisions, tariff structure assumptions, curtailment risks, demand projections, gender and other socio-economic factors to ensure alignment with regulatory priorities and planning needs. Consider the specific energy needs of marginalised groups in terms of their access and use of energy differently, in rural and off-grid areas.
- Present the proposed modelling approach, data framework, and tool architecture to ERC for validation.
- Develop a beta version of the cost simulation tool that integrates assumptions and algorithms for estimating system-wide cost impacts under different RE penetration scenarios. System cost refers to the total cost of delivering electricity to consumers, including generation costs, transmission and distribution costs, system balancing and ancillary services, curtailment, and integration-related impacts associated with increasing renewable energy penetration.
- Define data governance arrangements with ERC, including data ownership, maintenance responsibilities, and stakeholder access levels to support broader planning and policy use.

Activity 2. Run simulations to evaluate different scenarios

- Develop and run at least three RE penetration scenarios such as the addition of OSW capacity and GEAP-awarded/ planned awarded RE projects, to assess their impact on system cost and electricity tariffs. The scenarios must be designed in close consultation with ERC, to reflect
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varying levels of renewable energy uptake, grid and market conditions, and regulatory priorities, as well as potential gendered impacts. Additional scenarios may be developed collaboratively, depending on time and data availability.

- Conduct sensitivity testing on key assumptions to assess their impact on model outcomes. Include gender specific factors such as affordability and access to electricity by vulnerable groups. Compare simulation outputs with global benchmarks.
- Facilitate a stakeholder feedback session with relevant market participants to validate key assumptions and ensure model relevance.
- Prepare a final technical report summarising the scenarios tested, input assumptions, methodology, sensitivity analyses, key policies and tariff implications and present it to ERC and relevant key stakeholders. Include also how the various scenarios affect different social groups in terms of affordability, access and energy use patterns.

Activity 3. Organise capacity building

- Conduct training workshops with ERC staff and technical teams on the use of the cost simulation tool, including input management, analytical framework, scenario design, and interpretation of results.
 - Develop a user manual detailing model structure, input assumptions, update procedures, scenario workflows, and an analytical framework to apply model outputs to regulatory planning and policy decisions. Include sections in the manual on how to input and interpret GEDSI data.
 - Recommend institutional arrangements for long-term tool maintenance, ownership, and integration within ERC's processes. This should include a data governance framework clarifying ERC's role as data custodian after the tool handover, its responsibility for updating and maintaining the data (MRV), and its authority to define access levels for other agencies or stakeholders.
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1.3 Outputs and timelines

| Output | Description | Deliverable due | Acceptance criteria/sign-off |
|---|--|-------------------|--|
| Inception report | Inception report or proposal that describes the consultant's interpretation of the purpose, objectives, scope of work, the methodologies to be applied, and the stakeholders to be engaged. This should include a GEDSI Action Plan and identification of monitoring and learning activities relevant to the intervention. | 25 August 2025 | Written approval from the UK PACT program manager and fund manager |
| One technical consultation workshop summary (Activity 1) | A PowerPoint report summarising key takeaways and agreements with ERC on the approach, users requirements, and framework for the development of the cost simulation tool | 22 September 2025 | Written approval from the UK PACT program manager and fund manager |
| Beta version of a cost simulation tool (Activity 1) | An excel-based tool or other software models, agreed-upon by ERC, that integrates defined assumptions and algorithms for estimating system-wide electricity costs under different RE penetration scenarios. | 24 November 2025 | Written approval from the UK PACT program manager and fund manager |
| Scenario analysis report and updated cost simulation tool (Activity 2) | A report presenting the results of at least three RE penetration scenarios, including key modelling assumptions, a comparative analysis of system-wide cost | 18 December 2025 | Written approval from the UK PACT program manager and fund manager |

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|---|--|-----------------|--|
| | and tariff impacts, sensitivity testing, and benchmarking of the Philippines' results against relevant international case studies or global RE cost trends. The deliverable should also include an updated version of the simulation tool reflecting refinements made during the scenario phase. | | |
| One ERC training Workshop and User Manual (Activity 3) | Conduct training with the ERC on the utilisation of the tool, accompanied by a user manual in pdf version that provides a step-by-step process flow on the utilisation of the cost simulation tool along with relevant sections including data governance. | 9 February 2026 | Written approval from the UK PACT program manager and fund manager |

1.4 Required expert qualifications and experience

A team of technical experts and project management support should be suggested in proposals, with CVs provided (max two-pages per CV). It is estimated that 3-4 experts will be required to deliver the requirements.

Applying organisations must demonstrate proven experience assisting government agencies or development organisations in developing analytical tools to assess the impact of renewable energy projects and system-wide cost components on overall electricity costs to consumers.

The team should have strong technical expertise in power system modelling, cost forecasting, and tariff analysis, along with a clear commitment to capacity building and knowledge transfer to government counterparts and mainstreaming GEDSI.

Bidders are welcome to propose alternate structures, but the proposed team should cover at minimum the following criteria.

1. Team leader - Senior Energy Economist or Power Sector Policy Advisor

- At least 10 years of international experience with renewable energy policy advisory work, with a focus on renewable energy development, and stakeholder engagement with national agencies involved with renewable energy regulatory work.
- Experience in providing capacity building support and leading high-level discussions with government agencies on tariff policy, and long-term system planning. Experience in the Philippines is preferable.

2. Power System Modeler (Senior Expert)

- At least 10 years of international or national experience in power system modelling, with a focus on developing cost simulation tools for generation planning.
- Demonstrated expertise in using modelling platforms such as PLEXOS, TIMES, LEAP, or similar tools for RE integration studies.
- Familiarity with Philippine power system and Southeast Asia market is desirable.

3. Renewable Energy Cost and Financial Analyst (Expert)

- At least 7 years of experience in electricity tariff modelling, cost-of-service analysis, or financial modelling for power systems in the Philippines.
 - Experience with power system planning scenario-based analysis and manuals development.
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1.5 Reporting

Alongside the project specific reporting outlined in the output section and below, the supplier will also be required to align with the UK PACT programme monitoring and reporting governance framework which includes:

- Monthly progress reporting on outputs.
- A full project completion report, summarising project achievements, any lessons learned through delivery, including progress and learnings on GEDSI, and any recommendations for future action.
- Participation in fund-wide communities of practice for results and lessons sharing, including provision of input for possible case studies.

In line with the UK PACT's GEDSI strategy, all projects are expected to complete a GEDSI training and develop a GEDSI Action Plan with the support of the Fund's GEDSI expert. Progress reports should include updates on progress towards the GEDSI Action Plan.

To report against standard UK PACT indicators, the supplier will also need to collect and report disaggregated data on the organisations and individuals participating in workshops and trainings. Disaggregation should cover gender as a minimum and include age, disability, geography, and other social characteristics where feasible. As applicable, the supplier may also be asked to accomplish indicator-specific baseline and reporting tools such as for assessing institutional capacity.

Project specific reporting includes:

| Reporting requirements | Deadline |
|---|--------------------------------|
| • Inception report | 25 th August 2025 |
| • Technical consultation workshop summary | 22 nd September |
| • Beta version of cost simulation tool | 24 th November 2025 |
| • Scenario analysis report and updated cost simulation tool | 18 th December 2025 |
| • ERC training workshop and user manual | 9 th February 2026 |

1.5 Budget and contracting

The maximum budget is GBP 144,000 which must include personnel, expenses and any local taxes. The budget is exclusive of UK VAT.

Expenses should cover workshop logistics, venue, any interpretation & translation services, travel & accommodations of delivery team, as well as participants.

Please note that the selected supplier will be responsible for arranging and organising the travel and accommodation, venues and packages for any workshops and stakeholder engagement sessions, and

ensuring that travel, accommodation and workshop venue and contents are accessible. Managing these logistical aspects is a component of the service expected.

The successful supplier having passed the requisite due diligence checks will enter into a subcontractor agreement with Palladium for the delivery of these services on a time and materials basis. The agreement will include a milestone payment structure, which will be agreed between both parties during contract mobilisation.

Schedule 2 – Instructions for submission

2.1 Submission process

Timeline

| Stage | Date |
|--|------------|
| 1. Terms of Reference (ToR) and application process launched | 16/06/2025 |
| 2. Deadline for receipt of clarification questions | 23/06/2025 |
| 3. Deadline for submission of applications | 14/07/2025 |
| 4. Applicants notified of project selection | 25/07/2025 |
| 5. Due diligence complete | 08/08/2025 |
| 6. Agreement signature | 18/08/2025 |

Applicant guidance

Interested suppliers should complete and submit the below documents to expertdeployments@ukpact.co.uk with the subject line: **RFQ Submission – [Supplier name]**
Philippines Tool for Electric Power System Cost Simulation

- **RFQ Response form**
- **Budget and Workplan Template**
- **CVs of key experts or personnel** (max two pages per CV)

Please note the following key dates:

- **Deadline for Queries:** 23/06/2025 (23:59 BST)
- **Submission Deadline:** 14/07/2025 (09:00 BST)

2.2 Evaluation criteria

| Criteria | Category | Weighting |
|--------------|--|-------------|
| Technical | Approach and methodology | 30% |
| | Personnel | 50% |
| Commercial | Competitiveness of the supplier's personnel cost | 20% |
| Total | | 100% |

2.2.1 Technical evaluation

The technical criteria will be evaluated by the procurement panel using the scale detailed below:

| Score | Description |
|------------------|---|
| 5 (Excellent) | Demonstrates an expert understanding of the project and proposes excellent and accurate solutions which address all requirements, and which are innovative where appropriate. Responses are excellently tailored to the context in all aspects. The level |

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| | of detail and quality of information provides the highest degree of confidence in the ability to deliver. |
| 4 (Very Good) | Demonstrates a very good understanding of the topic relating to delivery of the project. Responses are relevantly tailored to the context in the majority of aspects. There is sufficient detail and quality of information to give a strong level of confidence that they will deliver. |
| 3 (Good) | Demonstrates a good understanding of the topic relating to the delivery of the project. Responses are reasonably tailored to the context for many of the aspects. There is a good level of detail and quality to give a good level of confidence that they will deliver. |
| 2 (Satisfactory) | Demonstrates a satisfactory understanding of the topic relating to delivery of the project. Some appetite to tailor to context where required. Provides a limited level of detail and the quality of information provided gives only some level of confidence that they will be able to deliver satisfactorily. |
| 1 (Unsatisfactory) | Demonstrates a poor understanding of the topic relating to delivery of the project. Poor tailoring to the context where this is required. Generally, an unsatisfactory and a low level of quality information and detail, leading to a low level of confidence that they will deliver. |
| 0 (Fail) | Failure to address the material requirements of the project. No tailoring of responses to meet the context. No quality responses providing no confidence that they will deliver. |

2.2.2 Commercial evaluation

The commercial evaluation will be conducted using the total personnel cost quoted in the Schedule III - Budget and Workplan (Cell W15 of “Budget Summary” sheet).

Supplier scores will be calculated relative to the lowest price supplier using the formula below:

$$((\text{Personnel cost of lowest price supplier} / \text{personnel cost of supplier}) * \text{price weighting } 20\%)$$

Where required, a Best and Final Offer process may be used to differentiate between suppliers of equal scoring.



Terms and Conditions

- 1. Quote conditions**

By submitting a quote, potential suppliers are bound by these terms and conditions. Potential suppliers must submit offers with all details provided in English and with prices quoted in GBP.
- 2. Quote Lodgement**

The Company may grant extensions to the Closing Time at its discretion. The Company will not consider any quotes received after the Closing Time specified in the RFQ unless the Company determines to do so otherwise at its sole discretion.
- 3. Evaluation**

The Company may review all quotes to confirm compliance with this RFQ and to determine the best quote in the circumstances.
- 4. Alterations**

The Company may decline to consider a quote in which there are alterations, erasures, illegibility, ambiguity or incomplete details.
- 5. The Company's Rights**

The Company may, at its discretion, discontinue the RFQ; decline to accept any quote; terminate, extend or vary its selection process; decline to issue any contract; seek information or negotiate with any potential supplier that has not been invited to submit a Quote; satisfy its requirement separately from the RFQ process; terminate negotiations at any time and commence negotiations with any other potential supplier; evaluate quotes as the Company sees appropriate (including with reference to information provided by the prospective supplier or from a third party); and negotiate with any one or more potential suppliers
- 6. Amendments and Queries**

The Company may amend, or clarify any aspect of the RFQ prior to the RFQ Closing Time by issuing an amendment to the RFQ in the same manner as the original RFQ was distributed. Such amendments or clarifications will, as far as is practicable be issued simultaneously to all parties. Any queries regarding this RFQ should be directed to the Contact Person identified on the cover page of this RFQ.
- 7. Clarification**

The Company may, at any time prior to execution of a contract, seek clarification or additional information from, and enter into discussions and negotiations with, any or all potential suppliers in relation to their quotes. In doing so, the Company will not allow any potential supplier to substantially tailor or amend their quote.
- 8. Confidentiality**

In their quote, potential suppliers must identify any aspects of their quote that they consider should be kept confidential, with reasons. Potential suppliers should note that the Company will only agree to treat information as confidential in cases that it considers appropriate. In the absence of such an agreement, potential suppliers acknowledge that the Company has the right to disclose the information contained in their quote. The potential supplier acknowledges that in the course of this RFQ, it may become acquainted with or have access to the Company's Confidential Information (including the existence and terms of this RFQ and the TOR). It agrees to maintain the confidence of the Confidential Information and to prevent its unauthorised disclosure to any other person. If the potential supplier is required to disclose Confidential Information due to a relevant law or legal proceedings, it will provide reasonable notice of such disclosure to the Company. The parties agree that this obligation applies during the RFQ and after the completion of the process
- 9. Alternatives**

Potential suppliers may submit quotes for alternative methods of addressing the Company's requirement described in the RFQ where the option to do so was stated in the RFQ or agreed in writing with the Company prior to the RFQ Closing Time. Potential suppliers are responsible for providing a sufficient level of detail about the alternative solution to enable its evaluation.
- 10. Reference Material**

If the RFQ references any other materials including, but not limited to, reports, plans, drawings, samples or other reference material, the potential supplier is responsible for obtaining the referenced material and considering it in framing their quote. And provide it to the Company upon request.
- 11. Price Basis**

Prices quoted must be provided as a fixed maximum price and show the tax exclusive price, the tax component and the tax inclusive price. The contract price, which must include any and all taxes, supplier charges and costs, will be the maximum price payable by the Company for Services.
- 12. Financial Information**

If requested by the Company, potential suppliers must be able to demonstrate their financial stability and ability to remain viable as a provider of the Services over the term of any agreement. If requested by the Company, the potential supplier must promptly provide the Company with such information or documentation as the Company reasonably requires in order to evaluate the potential supplier's financial stability.
- 13. Referees**

The Company reserves the right to contact the potential supplier's referees, or any other person, directly and without notifying the potential supplier.
- 14. Conflict of interest**

Potential suppliers must notify the Company immediately if any actual, potential or perceived conflict of interest arises (a perceived conflict of interest is one in which a reasonable person would think that the person's judgement and/or actions are likely to be compromised, whether due to a financial or personal interest (including those of family members) in the procurement or the Company).
- 15. Inconsistencies**

If there is inconsistency between any of the parts of the RFQ the following order of precedence shall apply:
(a) these Terms and Conditions;
(b) the first page of this RFQ; and
(c) the Schedule so that the provision in the higher ranked document will prevail to the extent of the inconsistency.
- 16. Collusion and Unlawful Inducements**

Potential suppliers and their officers, employees, agents and advisors must not engage in any collusive, anti-competitive conduct or any other similar conduct with any other potential supplier or person or quote any unlawful inducements in relation to their quote or the RFQ process. Potential suppliers must disclose where quotes have been compiled with the assistance of current or former the Company employees (within the previous 9 months and who was substantially involved in the design, preparation, appraisal, review, and or daily management of this activity) and should note that this may exclude their quote from consideration. Potential suppliers warrant that they have not provided or offered any payment, gift, item, hospitality or any other benefit to the Company, its employees, consultants, agents, subcontractors (or any other person involved in the decision-making process relating to this RFQ) which could give rise to a perception of bribery or corruption in relation to the RFQ or any other dealings between the parties.
- 17. Jurisdiction**

This Agreement shall be subject to the laws of the Jurisdiction. The Supplier and the Company will use their best efforts to settle amicably any dispute, controversy, or claim arising out of, or relating to this Agreement or the breach, termination, or invalidity thereof. If no agreeable settlement can be found, any dispute, controversy, or claim arising out of or relating to this Agreement or the breach, termination, or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules in effect on the date of this Agreement. The appointing authority shall be the Secretary-General of the Permanent Court of Arbitration. The Parties will be bound by any arbitration award rendered as a result of such



arbitration as the final adjudication of any such dispute. The place of arbitration shall be the headquarters location of Company at the time the claim is filed and the language of the arbitration will be English. The relevant laws shall be the laws of the Jurisdiction.

If your quote is successful, you will be required to enter into the Company's standard contract for the types of services being provided. In the provision of the Services, you will be required to comply with the Company's policies, including (without limitation) its Business Partner Code of Conduct and any relevant Project Manual. Potential suppliers must also comply with the Company's Business Partner Code of Conduct in the submission of any quotes pursuant to this RFQ. If you are bidding as part of a joint venture, partnership or similar, please make this clear in your submission. Likewise, if you propose to subcontract any part of the services provision, then disclose this fact within your submission. The Company may require additional information from you and approval for subcontracting will not be automatic as subcontractors will be subject to Palladium's Due Diligence process.