EAST MIDLANDS INSTITUTE OF TECHNOLOGY

Invitation to Tender

Future Energy Skills Hub:

Research and feasibility study into the skills needed to enable energy transition in the East Midlands.

And/or

Impact evaluation.

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Tender Deadline	Midnight 3rd September 2024

1. Introduction and background

Partners across the East Midlands are working hard to bring forward a net-zero energy strategy for the region, replacing fossil fuels in transportation, in homes and in energy intensive industries. However, the key challenge which needs to be addressed is the skills gap – having enough people trained, capable and knowledgeable in the production, management and utilisation of new sources of energy.

A recent report by the Office of National Statistics reveals that 19.1% of all workers in the East Midlands currently work in the UKs highest emitting industries – the highest in England and Wales. This high proportion, reflecting the region's level of heavy and energy-intensive industries, means that the East Midlands workforce is more at risk of impact from the Government's 2050 net-zero target.

The report also identifies a close correlation between an older and lower skilled workforce and energy-intensive industries; reinforcing the need for low-carbon upskilling and the creation of clearer pathways into future low carbon roles.

Training and retraining skilled and existing staff is vital to the success and sustainable economic future of the East Midlands. Plans for the UK's biggest inland hydrogen production facility within the Freeport area and the East Coast Hydrogen pipeline are now well developed. These initiatives, alongside green electricity production from Hydrogen at the former High Marnham power station site, fusion research at West Burton and extensive research and piloting of other renewable energy sources provide the backdrop for large-scale energy transition across the region.

The EMIoT is one of 21 Institutes of Technology across England, established to provide education and training for STEM-focussed occupations to meet the needs of employers both regionally and nationally.

IoTs are partnerships between further and higher education providers and industry with a primary role of accelerating take-up of technical learning and careers locally and delivering the technical workforce needed by their surrounding industries. IoTs provide a vehicle through which educational providers and industry partners work collaboratively to co-create and deliver both established and new or emerging technical qualifications and upskilling from entry levels (L2/3) through higher technical (L4/5) and into higher awards (at L6&7) as well as research outcomes at L8. The EMIoT curriculum is therefore both current (i.e. informed by the latest research, utilising cutting edge technologies) and relevant (i.e. meeting the needs and expectations of employers for a future-fit, technically and digitally enabled workforce).

In the East Midlands, EMIoT focusses on levelling up the critical engineering, manufacturing and digital skills required by local and national employers to support local growth ambitions and address the ambitious engineering challenges of clean growth. As part of this work, EMIoT has been working closely with EM Freeport to provide a robust skills and workforce offer to support regional inward-investment and identify key skills gaps that might undermine regional growth ambitions.

National and regional data consistently demonstrates an undersupply of technical skills, especially at levels 4-6, to achieve national growth and industrial need. Whilst high level skills and knowledge are grown through the UKs high-performing research universities, cascading this knowledge down through layers of learning is slow and often hinders uptake of new and emerging technologies. This results in 4 challenges:

1. Strategic stakeholders lack information to help them plan for future technology infrastructure at pace.
2. Business leaders (especially in SMEs) do not have access to sufficient information to model new technologies into their business planning.
3. Practical technical skills to support technology transition are lacking and add risk to adoption.
4. Local populations are not aware of the scale or geographic demand for skills demand being created by recent technologies and therefore are do not pursue or demand related pathways.

The result of this scenario is that education providers do not have the confidence that uptake will fulfil the cost of developing courses in emerging technologies, further slowing the process.

This work will identify the skills needed to enable regional energy transition. Specifically this work will demand timelines, principal skills gaps that will need to be filled and, ultimately, provide a template for ensuring that skills provision is an active contributor and driver of the East Midlands growth and decarbonisation ambitions.

2. Specification – Research and Feasibility

East Midlands Institute of Technology (EMIoT) has been successful in securing seedcorn investment from East Midlands Freeport for the development of a (working title) *Future Energy Skills Hub (FESH).* FESH will provide a template for how skills and education delivery should support and mirror economic growth priorities in a geographical area.

The FESH will ensure coherent pathways exist between colleges and universities for ongoing and lifelong skills development in the energy sector and the direct feed of learning from research into that model. It will provide coordinated industry-based training for the production, handling, storage and use of hydrogen across multiple education providers in order to meet regional skills demand.

To inform the development of FESH, EMIoT wishes to engage consultancy support to deliver research and feasibility study into the skills needed to enable energy transition in the East Midlands.

EMIoT is seeking proposals from interested organisations to deliver the following:

- Summary assessment of future energy strategy for the East Midlands, including timelines for rollout. To include (but not limited to)
    - Hydrogen
    - Renewables
    - Nuclear
    - Resource efficiency
- Analysis of the skills demand and gaps emerging – assessed by:
    - Energy delivery phase (production and pre-production/infrastructure development, storage, distribution and usage);
    - Skills level;
    - Specialism/Skills subject area and;
    - Spatial distribution.
- Assessment of industry readiness for energy transition:
    - Readiness of the energy sector workforce to deliver new energy technologies in region and;
    - Readiness of target industries / sectors within the Freeport area to make a transition to new energy sources;
    - The availability of skills, facilities and appetite within industry to support skills development and learning outcomes.
- Assessment of the region's educational capacity to deliver a future energy workforce:
    - Best practice from other parts of the country;
    - Existing provision in and around the region;
    - Capacity of the education sector to address gaps.
- Share learning and recommendations for next steps – including identification of:
    - Priority energy vectors for educational focus
    - Energy-related skills gaps for prioritisation over next 5 years
    - Recommendations for skills delivery models and curriculum development approach;
    - Opportunities for close or co-delivery with industrial partners;
    - Educational workforce development or equipment needs (or other related factors) to enable the above;
    - Opportunities to enable wider socio-economic and inclusion benefits as a result of the project

Delivery against the specification must be incremental, with learning that will inform or prompt the development of curriculum to address emerging skills priorities reported as they are evidenced. Regular and ongoing dialogue with the contract manager and project Steering Group will be required throughout.

3. Specification – Evaluation

In addition to the above research and feasibility study, an opportunity to undertake an evaluation of the impact of this work throughout project delivery in years 2 and 3 is also available.
The evaluation will assess both the high-level strategic objectives and delivery objectives of FESH:

STRATEGIC OBJECTIVES

- Enabling collaboration and coordination between skills providers and industry in the delivery of energy-related skills content and
- Enabling consistent information dissemination across the East Midlands on the skills and job opportunities in net-zero energy industries

DELIVERY OBJECTIVES

- Achievement against project targets and KPIs (see annex I)
- Achievement of wider economic and decarbonisation impact
- Subject interest and engagement - Learner growth and diversity.
- Environmental impact

4. Budget:

A total maximum budget of £145,000 is available. Budget is nominally split as follows:

- Lot 1: Research and feasibility study £116,000
- Lot 2: Evaluation £ 29,000

Budget inclusive of non-recoverable VAT.

5. Terms of Business

Payment will be made as follows:

- Lot 1: 25% on commencement
  25% on completion of delivery milestone 1 (TBA)
  25% on completion of delivery milestone 2 (TBA)
  25% on submission of final report
- Lot 2: 25% on commencement
  50% on mid-contract progress report
  25% on submission of final evaluation report

Payments will be made on submission of invoice and evidence of milestone achievement.

6. Timeline

Lot 1 must be delivered by 30th June 2025 at the latest with substantial findings (sufficient to commence early programme development activity) reported by end March 2025 (latest).
Lot 2 must be delivered by end September 2027

Deadline for submission of tenders is **Midnight 3rd September 2024**

7. **Other:**

The appointed consultant(s) will report operationally to the Executive Director of the EMIoT on a monthly basis (minimum).

Learning from the work will be presented to the FESH Steering Group which will meet bi-monthly or as required.

In addition to partner staff, EMIoT is currently hosting an academic research fellow focussing specifically on the development of hydrogen-related curriculum. The successful bidder will be expected to work collaboratively with this member of the team to enable synergy between the two workstreams.

8. Submitting a tender response

Responses should be emailed to **admin@emiot.ac.uk** by the deadline.

9. Costs and Expenses

All costs, expenses and liabilities incurred by you in connection with preparation and submission of the Tender will be borne by yourself.

10. Questions and Clarifications

Questions or clarifications can be sought up to and including 24th August 2024. All questions and responses will be published on the EMIoT website alongside the Invitation to Tender.

11. Requirements

Potential bidders must be able to demonstrate:

- Knowledge of UK energy strategy and plans for energy decarbonisation in the East Midlands.
- Experience and knowledge of the technical education system in England – from levels 3 to 8.
- Experience of outcome-focussed engagement with education, industry and other strategic stakeholders.
- Understanding of the role of EM Freeport – purpose and priorities.
- Understanding of the social value potential of FESH to the East Midlands.
- A robust project plan to enable delivery of the above specification (s) including any tools or techniques that will be used in delivery.
- A detailed cost plan which should not exceed the stated budget.
- Overview of delivery team with CVs
- Evidence of successful delivery of previous projects of similar scope and/or scale

12. Tender submission and scoring

Tender Response must contain:

1. Supplier name and contact details (for lead, administrator and finance)
2. Supplier trading name, registered address, company number and VAT number:
3. Overview of experience relevant to the project brief, including the experience of delivery team members and their role in the project.
4. A detailed plan of how you will deliver the project brief
5. A detailed cost plan, including deliverables and any additionality.

Responses will be scored using a team of assessors using the following weightings:

- Experience: 30%
- Price/VFM: 20%
- Social Value 10% (using the Social value model, how does your application support social value)
- Delivery: 40%

The main tender should not exceed 4 pages (6 if including both Lot 1 and 2)
In addition, the following information should be supplied or provided as website links:

- CVs of all key delivery staff
- Copy of liability insurance polices (Public/Product, Professional and Employers)
- Modern Slavery Policy (if applicable)
- Environmental/Sustainability Policy and Relevant Certificates
- Quality Assurance Certification (if applicable)
- Equal Opportunities or EDI Policy and any Relevant Certificates
- Safeguarding and Prevent Policy or evidence of suitability of the team to work within educational settings

NB. Tender applicants will be cross checked against the procurement frameworks of all project partners for the purposes of due diligence. Whilst framework inclusion is not a requirement for this ITT, EMIoT reserves the right to introduce additional due diligence checks for any applicant not currently listed on an existing procurement framework.

Annex I: FESH Targets and Outcomes

Proposed Outputs					
Output	**Output Description**	**Output Quantity**	**Beneficiaries**	**How will the Output be Measured?**	**Delivery Date**
1	In-work learners	130	Learners Businesses / employers	Learner records	31/07/2027
2	New technical learners	238	Learners	Learner records	31/07/2028
3	New learner application growth	10%	Learners Education providers	EMIoT data dashboard to DfE and HESA. Course application numbers.	30/09/2027
4	Student visits to/ use of equipment	Min 2 per target learner	Learners	Visit log Learner records	31/07/2027
Proposed Outcomes					
Outcome	**Outcome Description**	**Outcome Quantity**	**Beneficiaries**	**How will the Outcome be Measured?**	**Delivery Date**
1	Teaching staff upskilled in H2	15	Providers, learners	Records of participation / completion. Self reported learning progression. Successful delivery of H2 curriculum content	31/07/2027