
DFID Energy Research Priorities

Pipeline opportunities

Leanne Jones

Climate, Energy and Water
Research & Evidence, DFID



Two complementary Energy Research Initiatives

1. Energy and Economic Growth (EEG)

An applied research programme on the scope for maximising the economic development and poverty reduction impacts of large scale energy infrastructure.

Six Proposed research themes:

1. Linkages between electricity supply and economic growth
2. Energy sector financial and policy instruments and governance structures
3. Electricity supply and energy efficiency supporting sustainable urbanisation
4. The constraints in use of large scale renewable energy resources
5. Role of extractives in electricity supply/energy provision and sustainable development
6. Opportunities for innovative and appropriate design

Phase I: 12 mths – state of the knowledge studies

Phase II: 48 mths – applied research in 2-3 key themes

EEG Update

- Ministerial approval: end Feb/early Mar
 - Procurement for RPC: launch mid-April (6-9mths)
 - Details on DFID supplier portal:
<https://supplierportal.dfid.gov.uk/selfservice/pages/public/viewPublicNotice>
 - Need to register on supplier portal to get info (also LCEDN)
-



2. Renewable Energy, Smarter Electricity Systems and Storage (RESESS)

An applied research programme to develop cost-effective renewable energy technologies, notably involving solar, storage and smarter systems, promoting innovation and the skills and capabilities required to take the use of clean energy to scale

Four proposed complementary research themes:

1. Scaling up use of renewable energy systems (technologies, storage and distribution)
2. Scaling up energy innovation
3. Capacity building – getting ready for the future
4. Bioenergy – access and environmental sustainability

1. Scaling up use of renewable energy systems

How to promote a transformation

A systems approach (technologies, storage, distribution/business models)

Focus areas

Delivery through complementary and integrated research streams, adjusted to deliver transformation

Expected Outcomes: Evidence base on cost-effective renewable energy options, notably involving renewables, storage and smarter systems, that are cheaper than fossil fuel options, with innovative solutions and the capabilities required to take this to scale.

2. Scaling-up energy innovation – sector-wide research

Where are the main barriers, opportunities and trends in **energy innovation and entrepreneurship**? How can DFID help address sector-wide information asymmetries (e.g. impact data analysis) or sector-wide enabling environment barriers (e.g. end user awareness and education programmes)?

- Practical Action report – energy evidence demand v supply
 - Monitor Inclusive Market report – barriers to scale – beyond firm (value chains, public goods)
 - LCEDN consultation
 - Innovate UK consultation
-

Sample research questions

- **Sector-wide issues that would benefit all stakeholders:**
 - What regulations support/hinder? Taxes?
 - How is the market evolving and what information gaps are there (e.g. licensing and distribution, quality assurance standards)?
 - Lessons from emerging energy service delivery models
 - How do we measure impact and present?
-

3. Building local capacity

How can we support **energy skills and expertise** in developing countries to accelerate the development and deployment of energy services?

Suggested areas:

- Identify what works and doesn't to build knowledge and skills (where is best practice, why, how?)
 - Support cross-learning between researchers, innovators/entrepreneurs and private sector
-

4. Bioenergy

How can bioenergy support energy access AND environmental sustainability (in SSA)? Biogas, biofuels, 2nd and 3rd gen (moving away from wood).

Suggested areas:

- Trade-offs between enviro sustainability and commercial viability
 - Generic policies and incentives to encourage scale-up of good ideas
 - Governance systems and political economy
-

RESESS update

Similar to EEG:

Phase I: 12-18 months scoping, mapping, some new projects

Phase II: Remaining 4 years – applied projects, testing applications

- Design and business case drafting
- Programme approval – mid-May
- Procurement – June
- Implementation – 6-9mths later

No detail on Supplier Portal yet – but will be announced via LCEDN
