You are invited to attend any or all of a series of three Energy Transition Research Workshops outlined below.

Organised by the Centre for Energy Transition and the University Entrepreneur in Residence Ian Phillips, the workshops seek to identify new areas of research in three Energy Transition areas

- Research opportunities assuming the continued use of Hydrocarbons to supply energy across the world
- Research opportunities assuming that the human race completely replaces hydrocarbons to supply our energy
- Research opportunities helping society to just use less energy

Demand for energy continues to grow by 1.5-2.0% as the population of our planet increase. There are now over 8 billion people on earth – with projections between 9 and 11 billion by 2050.

Today around 85% of the world's energy is supplied by hydrocarbons. Although renewables are expanding rapidly, they are largely meeting the annual increase in energy demand rather than reducing our use of hydrocarbons.

The aim of these workshops is to identify research capability within the University that can map to the demands of industry and of government to the funding available in the UK and Europe, leading to new interdisciplinary research projects that attract new funding to the University.

The workshops will consider technical, societal legal and financial aspects of the Energy Transition – so will be of interest to all.

Workshop 1 – Continued use of hydrocarbons (4 hours)

Monday 12 January 2026 9am – 1pm

Sir Duncan Rice Library, 7th Floor, Meeting Room 1

Given the current dominance of oil gas and coal in our energy system, this workshop will seek opportunities for research that can support the decarbonisation of these well-established energy sources.

The main requirement is for the CO_2 that is produced when these fuel sources are used does not end up in the atmosphere. Obvious areas for consideration include improved carbon capture technologies; improved understanding of the transport of CO_2; better understanding of the underground storage of CO_2; and alternative ways of using or storing CO_2

Areas of focus will include subsurface and surface technical issues; the legal and regulatory aspects of such projects; costs; the commercial and economic impact; societal acceptance and other aspects of such a major change in how we meet our energy demands.

Workshop 2 – Completely replacing hydrocarbons (4 hours)

Monday 19 January: 9am – 1pm

Sir Duncan Rice Library, 7th Floor, Meeting Room 1

With the rapid growth in the availability and deployment of renewable energy sources (solar / wind / wave / tidal / hydro etc), this workshop will seek opportunities for research that catalyses and enables the rapid conversion of our current hydrocarbon-dominated energy system and civilisation to a zero-carbon energy system.

The key feature of such a system is that we simply don't produce any CO_2 in the energy production and consumption process. Potential areas of interest include developing new energy mechanisms

Ian Phillips
Entrepreneur in Residence

(e.g. naturally occurring hydrogen; low and high enthalpy geothermal etc); short and long term energy storage to deal with the intermittency of any of the low-carbon energy sources; new ways of delivering industrial and domestic energy; costs; the commercial and economic impact; societal acceptance and other aspects of such a major change in how we deliver our energy demands.

Workshop 3 – Use less energy (3 hours)

Wednesday 21 January: 9am – 12noon

Sir Duncan Rice Library, 7th Floor, Meeting Room 1

If we could simply use less energy, then the scale of the necessary energy transition would be reduced – so this workshop will focus on energy efficiency.

Today approximately 50% of the energy we produce is wasted – lost through hot exhausts going up chimneys and out of car exhaust pipes; through braking of vehicles; through poor insulation in buildings and cars and through "idling" of engines (e.g. in traffic queues or just to keep car occupants warm).

It is well understood that most processes that use electricity are more efficient than existing hydrocarbon processes (e.g. electric car overall efficiency is 30-40% compare with 10-25% for petrol and diesel cars).

Potential areas of interest include electrification of industrial processes; new ways of delivering space heating; improving the energy efficiency of buildings and industrial processes; costs; the commercial and economic impact; societal acceptance and other aspects of such major changes in how we consume energy.

Workshop delivery

Each workshop will consist of a blend of

- Information on aspects of the Energy Transition being presented to frame discussions
- Information on current and forthcoming grants and other funding opportunities in the Energy Transition space.
- Round table brainstorming and development of ideas that could evolve into fundable research programmes
- Initiating of groups interested in pursuing specific research objectives (and funding)

Each workshop will be led by Ian Phillips - the Royal Society Entrepreneur in Residence at the University of Aberdeen. He has an industrial career spanning 25 years in oil and gas, and a further 15 years in energy transition – most recently as the Project Director for the Acorn carbon capture and storage and blue hydrogen project.

He will be supported by others invited to share their expertise and perspectives to ensure a productive workshop.

How to sign up

Please e-mail interdisciplinary@abdn.ac.uk stating

- Your name; school; areas of research interest
- Which workshops you wish to attend

Ian Phillips
Entrepreneur in Residence