

1. Role and Purpose

The PAB will provide overarching advice on strategic direction and communication of the NERC-ESRC Unconventional Hydrocarbons in the UK Energy System Programme (the Programme) outputs by:

- 1. contributing the expertise in the sector(s) they report; and
- 2. overseeing performance to ensure that the project meets its stated objectives (including meeting the needs of the funders) (NERC and ESRC).

The PAB will meet to hear reports on current plans, research activities and Flexible Fund proposals, as presented by representatives from the Programme team. The PAB members will have the opportunity to communicate their views.

2. Terms of Reference

- The PAB will normally consist of not more than 16 members.
- The PAB will meet face to face at least once a year, with at least one additional meeting per year held using videoconferencing facilities.
- Members will be a mix of policy makers, regulators, industry representatives, Environmental NGOs, academics, and
 professional organisations. Recognising that the membership of the PAB is flexible and responsive to need, the
 membership will be left to the discretion of the Programme's Principal Investigators and the funders (NERC-ESRC).
 Attention will be paid to gender balance, geographical distribution, and sector representation when determining the
 membership of the PAB.
- The Principal Investigator (PI) will nominate the Chair and Deputy Chair of the PAB, each of whom will chair for two years.
- New/replacement members will be invited to join the PAB in consultation with existing members of the PAB.
- Membership of the PAB will be reviewed after two years. Members may terminate their post in writing (by email or letter) to the Chair of the PAB.
- In the absence of the Chair, meetings are to be chaired by the Deputy Chair.
- In attendance: Programme PIs and Project Managers will be expected to attend.
- In attendance: other interested parties may be invited to attend meetings, with the prior knowledge and approval of the Chair, and in consultation with the UK Shale Gas Landscape (UKSGL) PI.
- The UKSGL Project Manager will be responsible for arranging the administrative support for the PAB Meetings.
- The role of member is unpaid but UKSGL will reimburse members for all reasonable costs that they incur in fulfilling their roles on the committee (e.g. travel and subsistence costs) and which cannot be recovered from their own organisation.
- The Programme will publish details of the PAB on its website including membership, terms of reference, agenda, and minutes.



Initial Members:

Representation	Organisation	Named representative	Start date	End date	Role
Funder / Observer	NERC	Bethany Adams	Oct - 20		
Academic	University of Queensland	Peta Ashworth	Sep - 18		
Academic	UKERC and UKSGL	Michael Bradshaw	Sep - 18		Deputy Chair
Project Manager	UKSGL	Rachel Brown	Sep - 18		
Industry Representative	UKOOG	Ken Cronin	Feb – 20	Jan - 21	
Principle Investigator	UKSGL	Richard Davies	Sep - 18		Chair
Regulator	Royal Society of Chemistry	Mindy Dulai	Sep – 18	Jan - 21	
Industry representative	Cuadrilla	Francis Egan	May - 19		
Policy	BEIS	James Fulton	Sep - 18		
Industry	IGas	Ross Glover	May - 19		
Regulator	Environment Agency	Alwyn Hart	Sep - 18		
Regulator	Oil and Gas Authority	Toni Harvey	Sep - 18		
Policy	Public Health England	Greg Hodgson	Sep - 18		
Funder / Observer	NERC-ESRC	Sarah Keynes	May - 20		
Industry Representative	UKOOG	Charles McAllister	Jan - 21		
Regulator	Oil and Gas Authority	Alan Poole	Sep - 18		
Regulator	Oil and Gas Authority	Mark Quint	Sep - 18		
Environmental NGOs	World Wide Fund for Nature	Gareth Redmond-King	Sep - 18		
Academic	Texas Tech University	Danny Reible	Sep - 18		
Funder / Observer	NERC-ESRC	Rebecca Scott	May - 20	Jan - 21	
Funder / Observer	NERC	Ritwika Sengupta	Apr - 20		
Planning Authority	North York Moors National Park Authority	Rob Smith	Sep - 18		
Funder / Observer	NERC-ESRC	Susie Stephenson	Jul - 20		
Regulator	Oil and Gas Authority	Kelsey Tymms	Sep - 18		
Co-Investigator	UKSGL and BGS	Rob Ward	Sep - 18		
Industry Representative	Cuadrilla	Sau-Wai Wong	May - 19		
Funder / Observer	NERC-ESRC	Lisa Wright	Jul - 19		
Industry Representative	UKOOG	Martin York	Jan - 21		

3. Duties

• To advise on the Programme's strategy to achieve its overall objectives, acting as a critical friend in relation to the overall shape, academic direction, policy, and technical relevance of the research consortium.



- To advise / review / comment on publications and other outputs.
- To review and rank proposals submitted in response to calls under the Flexible Fund and recommend projects for funding.
- To act as ambassadors on behalf of the Programme, attending key events where possible and networking with key stakeholders on its behalf.
- To support the Programme in its impact generating activities offering advice on development of the communication plans; supporting the Programme in the dissemination of its outputs to key stakeholders; offering pathways to user groups.
- To receive and comment on an annual report from the UKSGL Project for submission to the annual PAB meeting.
- To attend, in person, the PAB which will meet once a year. To attend video conference meetings at least once per year.

4. Meetings: Frequency, Notice and Quorum

- Reports, documents and proposals will be distributed to PAB members by email at least 10 working days in advance of meeting.
- The work of the PAB will be based to some extent upon virtual communication and consultation. However, the PAB will meet face-to-face at least once a year.
- Meetings will last for no longer than half a working day and will be scheduled to meet the needs of appropriate travel.
- The PAB may engage with members on a bilateral or small group basis to pursue particular avenues for support and advice. All business from these meetings will be fed back to the annual meeting.
- Notice of PAB meetings will be given by the UKSGL Project Manager, on behalf of the Chair, in consultation with the UKSGL PI.
- Meetings of the PAB will be quorate if at least the following are present: Chair or Deputy Chair, two members of UKSGL, and four further PAB members.
- If virtual decisions are requested, the response will be considered quorate should the following provide response: Chair or Deputy Chair, two members of UKSGL, and four further PAB members.

5. Agenda, Minutes and Reporting

- The standing items on the agenda for each meeting will comprise: Declarations of Interest, receipt of apologies, membership update, identification of any other business, agree minutes from previous meeting, proposal review and agree funding allocation (Flexible Fund), presentation of recent publications, Programme update presented by UKSGL team.
- All proceedings and resolutions of from PAB will be minuted. Minutes will be circulated, and agreed as accurate by email but then formally approved and signed at the next face-to-face meeting. Draft minutes will be posted on the Programme's website once they have been initially agreed as accurate by email.

6. Review of Constitution and Working Arrangements

• The PAB's constitution and working arrangements are subject to a review every year.



7. PAB Member commitment statement

As individuals on the PAB, I agree to the following:

- I understand and agree to our roles and responsibilities on the PAB
- I encourage openness and will act appropriately
- I will actively support and challenge the Programme
- When communicating in our private capacity I will be mindful of the Programme and its vision and ambition
- I accept that in the interests of openness and transparency our names, terms of office and role on the PAB will be published on the Programme's website (www.ukuh.org.uk)
- I will complete a Declaration of Interest each year and make the project team aware of any changes to pecuniary or business interests if appropriate
- I will observe complete confidentiality when appropriate and note that the requirement for confidentiality will continue to apply after the term of office expires.
- I will act in the best interests of the Programme

Signed	Date

This protocol was generated in September 2018.

This protocol is due for review at the first meeting of the PAB in February 2019. This protocol has been amended in June 2019 to account for signoff via virtual meetings.