

Action Notes from Future Climate Engineering Solutions (FCES) Steering group meeting

December 8th – Institution of Mechanical Engineers, London

Attendees: Alison Cooke IMechE, Rob Curd ICE, Alexander Howe IChemE, Daniel Kenning IMechE / GATE and Andy Webster IMechE

Apologies: Jenifer Baxter IMechE, Beatriz Fernandez UN, Pernille Hagedorn-Rasmussen IDA, Paul Jowitt ICE, Stefaan Simons IChemE, Anna Stephenson BEIS / IChemE and Jean Venables ICE / WFEO

Agenda

Item	Time	Activity
1	1.00 pm	Welcome and Introductions
2	1.15 pm	Discussion on options for FC-ES project group to focus on in 2017 <ul style="list-style-type: none">- Capture ideas, resource required, and how they play to the strengths we have in our group
3	2.45 pm	Review ideas, and agree priorities for 2017
	4.00 pm	Close

Minutes

Item 1: Apologies were noted, and Alison and Daniel opened the meeting - Daniel was thanked for his leadership of FCES steering group. Alison proposed Alexander Howe and Andy Webster as co-chairs of the group for 2017 and this was seconded by Daniel.

Item 2: The FCES group (2008-present) has been working on developing national energy and climate plans with the objective to reduce greenhouse gas emissions and dependence on fossil energy. Through discussion of this experience eight possible themes emerged for focus in 2017. The challenge was to define each of them as an independent item that could be considered for focus in 2017. The themes and their subparts are listed below.

1. Support the update of the Energy Calculators that had been developed in the past through the UK governments Department of Energy and Climate Change (DECC) now the Department for Business, Energy and Industrial Strategy (BEIS).
 - a. BEIS in 2017 will be updating the UK only energy calculator and this would allow the FCES group to support this work, for example by organizing supporting events to leverage the information and the most up to date evidence based plans for the UK.
 - b. The FCES group could support an effort alongside BEIs to further develop a global energy calculator. This would require significant fundraising, and activity at a global level to deliver

a tool that is representative of the global options and pathways. It would strongly align with international bodies involved in FCES such as WFEO.

2. The FCES group could focus its' efforts on preparing for and running official COP events. This would allow us to leverage the network we have developed and work with other PEIs.
3. The FCES group could focus on aligning activities with the World Engineering community supporting both the World Engineering Summit in 2017, and the WFEO conference.
 - a. 2017 World Engineering Summit is being held in Singapore and the Institution of Chemical Engineers is organizing a segment which we could partner with.
 - b. In 2018 the WFEO conference is to be held in London hosted by the Institution of Civil Engineers (20 – 26 October). We could support the development of the conference section to align with themes in the FCES community.
4. The FCES group could put its' effort into re-igniting the community of engineering organizations it has brought together during its 8 years of history. This would support some of the UK engineering institutions that are focusing on their own networks and looking to further engage them. A strong website would be needed to support this active community.
5. The FCES group could focus on defining, approving and actively sharing good practice for the development of national energy plans. The thinking of transition engineering could be overlaid with this approach, and the existing energy plans could be cited as good practice where appropriate.
 - a. The good practice would be captured in a joint report for all Institutions that would partake in capturing and reviewing it. WFEO would be engaged to share it as best practice.
 - b. As well as capturing the good practice, training would be developed to enable others to coach bodies on undertaking the development of energy plans. International events would be organized to take advantage and promote the material. This would work alongside the Institutions international members.
6. Support developing nations in creating national energy plans. This would support the need for their growth to be done in a sustainable and affordable way. It would align with the WFEO strategy on climate change. It would also leverage members in the FCES community.
7. FCES could turn attention to the non-Energy components of the climate change challenge. This could include events and papers on themes such as Food, the Circular Economy, and Nexus thinking. This would align with work being done by the Institution of Chemical Engineers already.

8. An upgrade of the FCES website could be completed to allow open source working on future projects (for example the global energy calculator).

Item 3: The 8 themes and their sub ideas, were reviewed against an importance ranking to the group, and in terms of the challenge they would present. This wasn't intended to give a numerical outcome on what item to choose, but to help us as a group think about the choice we should make. The key desire was to choose from this list, as all had importance to the agenda of sharing practice and creating a network, but with the current limited resources focus was needed. For each item a + or – indicated a positive or negative impact to that point, while a / showed a neutral response.

Theme (shortened description captured here. Full detail is under item 3 by same numbers)	Importance	Align PEI's	Align BEIS	Align UN	Align to volunteer strengths	Align with global bodies (WFEO, RA)	Tim needed	Cost to support	'Fear Factor'
5.a Best practice through WFEO	1	/	/	+	+	+	-	/	/
1.b Global Energy Calculator	2	++	+	++	/	++	---	---	---
4. Ignite FCES network	3	/	-	+	/	++	--	-	-
2. COP events	4	/	+	++	+	+	-	-	+
6. Developing nations energy plans	5	-	+	++	/	+	--	--	/
5.b Best practice and training	6	+	/	+	+	/	-	-	/
1.a UK Energy Calculator	7	+	++	+	+	+	-	/	-
7. non energy focus on climate change issues	8	+	+	+	-	+	--	-	/
3.a World Engineering Summit	9	++	/	+	+	++	-	-	+
3.b WFEO Conference	10	++	/	+	+	++	--	-	/
8. New website	11	-	-	-	+	-	-	-	+

Actions

Action	Description	Owner
DEC.16.1	Set up recurring steering group meetings	Andy Webster
DEC.16.2	Share minutes of meeting with the FCES networks via web page and capture feedback and views from others.	Andy Webster
DEC.16.3	Develop theme 5.a Scope of work by January 2017 for review by steering group.	Daniel Kenning Andy Webster
DEC.16.4	Develop them 1.b 2 scope of work by January 2017 for review by steering group.	Alison Cooke
DEC.16.5	Introduce new co-chairs to Mayden foundation	Alison Cooke
DEC.16.6	Share outcomes of steering group with ICE climate change task group.	Rob Curd