

REPORT OF THE 4th ANNUAL GENERAL MEETING, (AGM), OF THE FUEL AND ENERGY RESEARCH FORUM, (FERF).

HELD ON FRIDAY 20th NOVEMBER 2020 AT 1.00.pm.
MEETING HELD ON-LINE THROUGH MICROSOFT TEAMS.

THE FUEL AND ENERGY RESEARCH FORUM AGM.

Dr. Will Quick, Chairman (Industry) of the FERF, welcomed the approximately 25 participants to this Forum event and chaired this 4th Annual General Meeting of the Fuel and Energy Research Forum.

i) Report of the year 2019 Annual Meeting

The minutes of the year 2019 Annual Meeting, held on 10th April 2019 at Aston University, (issued as FERF E-mailshot No.9 (2019), on 20th April 2019), were formally approved without modification.

ii) Review of Actions

Dr. Will Quick noted that there were no actions arising from the report of the year 2019 Annual Meeting.

iii) Report by the Chairman/General Secretary

The Chairman (Industry), Dr. Will Quick, presented the formal report for the calendar year 2019 as follows :-

The calendar year 2019 has continued the major transformation of the **Forum** into the **Fuel and Energy Research Forum**. The **Forum** has been pursuing and has made progress in achieving its new objectives, which have now broadened considerably with the expansion of the **Forum's** activities. During the year, the **Forum** has organised a number of fuel and energy research events. In April, the **Forum** Annual Meeting was held at Aston University, which included the election of Executive Committee Members and reports from the Interest Group Chairmen. This event included the Inaugural Seminar of the Fuel Characterisation and Carbonisation Interest Group entitled, "Biomass and Waste Fuel Characterisation" and a seminar of the Biomass and Waste Interest Group entitled, "Waste Not – Want Not".

In early September, the Inaugural Seminar of the newly formed Electricity Generation and Storage Interest Group entitled, "The Challenges of Electricity Generation with Biomass and Waste" was held at the University of Leeds.

In October, the **Forum** organised and part-funded the Inaugural Clean Energy Science Lecture. This lecture entitled, "Evolution or Revolution: A Personal Journey of the UK Power Industry towards a Sustainable Future", was presented by Dr Nina Skorupska, CBE FEI, Chief Executive of Renewable Energy Association, (REA). It was accompanied by a Workshop on Combustion Related Research and was held at Mary Sumner House, Westminster, London.

The year 2019 has seen the issue of three editions of the new **Forum** Newsletter (January, May, and September). During the year, the **Forum** website has continued to provide information to Members and has been regularly added to and up-dated, (it

now has a News Articles section), where many of the presentations from the above **Forum** events can now be viewed on this website. During the year, there have been almost 30 **Forum** E-mailshots. The **Forum** has also actively assisted with the promotion of, and publicity for, several other fuel and energy research events and funding opportunities in the UK, Europe and worldwide, through several **Forum** E-mailshots.

A fund is available from the **Forum** for the funding of PhD students to attend national and international conferences, where the recipients of these awards have provided articles on their impressions of these conferences for the FERF Newsletter. Several of these bursaries were awarded during 2019.

The **Forum** is at an advanced stage in the planning of the “1st FERIA Conference, the European Conference on Fuel and Energy Research and Its Applications, the Successor to the ECCRIA Series of Conference”, to be held at the University of Nottingham, (there was the need to change the name of the Conference to match the expanded aims and remit of the new Forum). As a result of Corona virus pandemic, the date of this Conference is currently in the process of being moved to 6th to 8th September 2021.

The Executive Committee has been in discussions with and is actively promoting several other fuel and energy research issues with a number of bodies both in the UK and overseas and has continued to provide an information service to Members. In particular, these discussions have led to the proposal to continue with a “2nd Clean Energy Science Lecture” to be held during the 1st FERIA Conference at the University of Nottingham now to be held in September 2021.

iv) **Report by the Treasurer**

Dr. Andrew Goddard, the FERF Treasurer, presented the Treasurer's report to the meeting, which included a summary of the Income & Expenditure Account and the Balance Sheet for the period 01/01/2019 to 31/12/2019.

The Income & Expenditure Account for the calendar year 2019 showed expenditure resulting from normal FERF operating activities i.e. newsletter services, secretarial and administrative services, treasurer and webmaster services, the rental of the Forum Post Office Box, the website rental fee, and related costs, the credit card facility fee, postage and the public liability Insurance provisions. There were also the seminar expenses for the event at Aston University, (10/04/19) and the event at the University of Leeds, (11/09/19). In addition, there were some other expenses, which included three PhD Student bursaries.

The significant source of income was, as usual, Membership subscriptions. This consisted of Membership subscriptions from a total of 42 Members for 2018, (7 less than for 2018), and 1 advanced payment for 2020. Other income included the final surplus payment from the 12th ECCRIA, (Cardiff), non-members seminar fees and bank/building society interest, where it was noted that the latter gave a very poor interest rate but where there were no known viable alternatives.

This account was supported by the Balance Sheet at 31/12/2019. Overall, there was a cash surplus for the year, although Dr. Goddard noted that the normal operations of the FERF would have made a large deficit but for the final surplus arising from the 12th ECCRIA Conference. The total assets at 31/12/19 were described, which

included the funds in the Nottingham Building Society.

v) **Election for Vacancies on the Executive Committee.**

There were five vacant positions on the Executive Committee, (Chairman, (Academe), 3 x Representatives from Academe and 1 x Representative from Industry), for which the following nominations had been received.

<u>CANDIDATE.</u> <u>(POSITION).</u>	<u>PROPOSERS.</u>
Prof.J.W.Patrick (Chairman, Academe)	Prof.C.E.Snape Prof.E.H.Lester Dr.W.J.Quick
Prof.E.H.Lester (Representative from Academe)	Prof.Y.Yan Prof.W.Nimmo Dr.G.S.Riley
Prof.W.Nimmo (Representative from Academe)	Prof.E.H.Lester Prof.Y.Yan Dr.D.J.A.McCaffrey
Prof.Y.Yan Representative from Academe)	Dr.G.S.Riley Prof.E.H.Lester Prof.W.Nimmo
(Representative from Industry)	No Nominations Received

The candidates for the positions of Chairman (Academe), and the three vacant positions for Representative from Academe were therefore elected unopposed.

Regarding the one vacant position for a Representative from Industry, the FERF Officers had discussed the procedure for filling this position prior to the meeting and had concluded that the usual procedure, (that is, without any prior written nominations), would be difficult to carry out with an on-line meeting. It had therefore been agreed that if anyone wished to make such a nomination then they should send a written nomination as an E-mail attachment to the General Secretary. Subject to there being 3 valid nomination, then the candidate would be elected to the Executive Committee at the next, (2021), Annual Meeting, to be held on-line early in 2021.

vi) **Any Other Business**

There was a short discussion on the various merits of hold on-line seminars regarding length and content, where the Chairman, (Industry), agreed that this would be a point for discussion at the next FERF Executive Committee Meeting in two week's time.

REPORTS FROM THE INTEREST GROUP CO-ORDINATORS

To include progress in their Interest Groups during the year 2019.

Combustion, Dr. Gerry Riley

Dr. Riley reminded the meeting that the Inaugural Seminar of this Interest Group had been held at the University of Nottingham in April 2017 and was entitled, "Combustion Safety and Flame Stability". Dr. Riley continued that the follow up seminar of this Interest Group originally planned for April 2020, entitled, "Challenges with Waste Woods/Biomasses", had had to be postponed twice as a result of the Corona virus pandemic. This event would now be rescheduled either to be presented on-line as, say, 2 x 2 hour webinars or on Wednesday 23rd June 2021 at the National Self-Build Centre, Swindon. Dr. Beeley reminded the meeting that if this booking in Swindon was not used, then it could not be postponed for a third time. Dr. Riley concluded that he would welcome the views of Forum Members and was always open to suggestions for topics for future Interest Group seminars.

Environment, Prof. Bill Nimmo

Prof. Nimmo reminded the meeting that the Inaugural Seminar of this Interest Group had been held at the University of Sheffield in April 2018 and had been entitled, "Materials for Energy Technologies". Prof. Nimmo continued that he would always welcome the views of Forum Members and was open to suggestions for topics for future Interest Group seminars. The front runners for such a seminar were likely to be issues on environmental impact such as, "Decarbonising the Steel Industry", "Emissions Control in District Heating Systems", "The Implications of New BECCS" or emissions from industrial processes, such as "The Control of NO_x, SO_x and Particulates from Industrial Processes" or "The Control of Mercury and Trace Element Emissions from Industrial Processes". However, he continued that the timing of such a seminar would be dependent on ending of the Corona Virus pandemic and might not now be until late 2021 or early 2022.

Biomass and Waste, Dr Katie Chong

Dr. Chong reminded the meeting that the Inaugural Seminar of the Biomass and Waste Interest Group had been held at the University of Leeds in June 2017 and had been entitled, "Low Grade Biomass – Challenges and Opportunities". She continued that the follow up seminar in this series of Interest Group seminars had been held at Aston University in April 2019 and was entitled, "Waste Not – Want Not".

Dr. Chong expressed interest in the future seminars outlined above for the Environment Interest Group, particularly the "Emissions Control in District Heating Systems", "The Implications of New BECCS" and "Emissions from Industrial Processes" seminars and suggested that the next Interest Group seminar be a joint seminar with the Environment Interest Group. This might consist of a series of on-line webinars or short half-day seminars. This suggestion was agreed by Prof. Nimmo. Dr. Chong concluded that she would always welcome the views of Forum Members and was open to suggestions for topics for future Interest Group seminars.

Electricity Generation and Storage, Mr. Niall Moroney

Mr. Moroney reminded the meeting that the Inaugural Seminar of the Electricity Generation and Storage Interest Group had been held at the University of Leeds in

September 2019 with the theme “The Challenges of Electricity Generation with Biomass and Waste Fuels”. The seminar had included new biomass combustion research and technologies, issues in biomass markets and the role of biomass in balancing the electricity market in the future.

Mr. Moroney continued that the date and title of the next Interest Group seminar would not be determined until there was an easing of the restrictions imposed by the Corona virus pandemic. He concluded that the main subject areas that he had in mind were the role of hydrogen, electricity storage technologies and adapting power plants for an increasingly flexible demand.

Carbon Capture and Storage, Prof Jon Gibbins

Prof. Gibbins reminded the meeting that the Inaugural Seminar of this Interest Group had been held jointly with the UKCCSRC's, (of which Prof. Gibbins is the Director), September 2017 Autumn meeting at the University of Sheffield. Prof. Gibbins continued that in 2019 the emphasis was moving towards delivery and that it may have been possible to hold a seminar on potential projects in 2021. To this end, Prof. Gibbins had been in discussions with staff at Uniper Technologies Ltd., where the original plan had been to hold an Interest Group Seminar in June 2021, venue to be determined, subject to the position regarding the Corona virus pandemic. It might therefore be possible to hold this seminar in June 2021 at the Swindon venue.

However, there had recently been much activity with 2 Target Clusters planned for 2025 and 2 for 2030, together with up to 8 Industrial Carbonisation projects, where the projects to be funded would be announced early next year. He reported that the UKCCSRC had been presenting on average one on-line lecture per week during the Corona virus pandemic. Prof. Gibbins continued that this UKCCSRC system could be used for up to 50 participants for an FERF Interest Group seminar of a maximum of a half-day duration in June 2021.

Prof. Gibbins concluded that he would always welcome the views of Forum Members and was open to suggestions for topics and content for such future Interest Group seminars.

Fuel Characterisation, Up-grading and Carbonisation, Prof Ed Lester

Prof. Lester reminded the meeting that the Inaugural Seminar of this Interest Group had been held at Aston University in April 2019 and had been entitled, “Biomass and Waste Fuel Characterisation”, which had shown the breadth of the field ranging from new fuels, renewables and the ongoing focussed sourcing of coals for the steel industry, which continues to be a global playing field.

Prof. Lester continued that plans for the next Interest Group seminar were currently on hold until there was an easing of the restrictions imposed by the Corona virus pandemic, where the next seminar could be in early 2022. Dr. Lester concluded that he would always welcome the views of Forum Members in this matter and was open to suggestions for topics and content for such future Interest Group seminars.

Concluding Remarks

Dr. Will Quick, FERF Chairman, (Industry), stated that for a first **Forum** on-line event, this meeting had got very well and thanked the Treasurer, Andrew Goddard

for arranging the Microsoft Teams video conference and the General Secretary for the preparations for the meeting. He continued that the year 2020 had been a difficult year for the **Forum** and everyone. The **Forum** had been able to provide most of its usual services this year and had continued to provide all of the 2020 FERG Newsletters, the regular FERG E-mailshots, the up-dating of the website and had still provided a Member's information service. Unfortunately, due to the restrictions imposed by the event venues, the **Forum** had had to postpone the usual one-day Interest Group seminars and the biennial 3-day Conference now named, the 1st FERIA Conference, the European Conference on Fuel and Energy Research and its Applications, both of which will now take place next year.

Regarding the 1st FERIA Conference, there had been much work going on behind the scenes, firstly for the postponement of the Conference to April 2021 and more recently to September 2021 for which he thanked the Conference Chairman, Dr. McCaffrey and the Conference Organising Committee.

As described above, he continued that the **Forum** would be considering the timing of future face-to-face seminars at the next FERG Executive Committee Meeting, which would, of course, be dependent on the ending of the Corona Virus pandemic and might not now be until late 2021 or early 2022. The merit of such face-to-face meetings was not just for the presentations themselves, valuable thought they are, but for the discussions and informal meetings at coffee and lunch breaks that often lead to further discussions and collaborations. In the meantime, consideration was being given to the presentation of on-line events, for example, 4 or 5 presentation webinars of no more than 2 hours duration.

Dr David J A McCaffrey
General Secretary of the Fuel and Energy Research Forum
21st November 2020