The Institute of Refrigeration

(Registered Charity No 1166869)

Annual Report and Financial Statements For the year ended 31st March 2019

(Registered Charity No. 1166869)

FINANCIAL STATEMENTS

FOR THE YEAR ENDED 31 MARCH 2019

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Introduction

This report explains how the Institute of Refrigeration has fulfilled the purpose for which it is legally registered as a charity, the activities it has undertaken during the period covered and what it has achieved during that period.

It covers the activities of the IOR which holds the legal status of charitable incorporated organisation.

This report provides details of the activities, achievements, plans and governance that are in place to ensure that the IOR meets its objectives, together with the financial statements that explain how resources have been allocated.

The IOR undertakes a wide range of educational and scientific activities which provide benefit to the public and its members by promoting the advancement of the science and practice of refrigeration in all its applications.

Kevin Glass FInstR

President and Chairman of the Board of Trustees

15th August 2019

The purpose of the IOR as set out in its Constitution is:

- The general advancement of refrigeration in all its applications, in relation both to the perfection of its methods, and to the extension of its services to the community
- To promote means for communication between members and their interchange of views
- To encourage invention and research in all matters relating to the science and practice of refrigeration
- To promote a sustainable approach to all aspects of refrigeration system design and operation
- To co-operate with educational institutions for the furtherance of education in the science and practice of refrigeration
- To hold meetings of the Institute for reading and discussing papers dealing with refrigeration and allied subjects
- To publish and distribute the proceedings or reports of the Institute
- To do all other things, incidental or conducive to the attainment of the above objects or any of them

Institute of Refrigeration Principal office Kelvin House, 76 Mill Lane, Carshalton SM5 2JR UK

ANNUAL REVIEW 2018-19

1.1 Objectives and activities

The Trustees have reviewed these objectives and evaluated activities against them in line with the Charity Commission guidance on public benefit and confirm that the IOR continues to provide public benefit through:

- Activities to reduce the environmental impact of refrigeration, air conditioning and heat pump technologies by awareness raising and technical outpu
- Promoting training standards, education, skills and careers opportunities by engaging with students, schools and the Institute for Apprenticeships
- Enhancing professionalism of individuals operating in the sector by offering ways of sharing information, encouraging Engineering Council professional registration, working with employers on developing Apprenticeship Standards and providing CPD (Continued Professional Development) opportunities.

The Trustees carried out a strategic review of activities necessary to achieve this aims during the year and confirmed the following priorities and targets for the next period which will have a long term impact:

- 1. Raising awareness of the range of opportunities available to members and encouraging them to participate to ensure they gain the maximum benefit from their membership.
- 2. Ensuring that the IOR can represent the sector with an authoritative voice in educational and technical matters through a balanced mix of member representing all sectors within refrigeration, air conditioning or heat pumps. This includes encouraging more members to join, especially young people, those working in air conditioning and heat pumps and those overseas.
- 3. Further updating of IOR's image and communications so that information is easy to find and presented clearly in an accessible format.
- 4. Improving services to the AC and HP Sector.

Impact and success in progressing these strategic objectives is reviewed at quarterly Trustee meetings where progress reports are presented and activity adjusted accordingly. In addition Trustees monitor Engineering Council professional registration levels, international partnerships with institutes sharing our objectives, opportunities to host international research conferences in the UK, local and regional networking opportunities and providing public education and technical information on the safe use of lower GWP alternative refrigerants. Key success measures include: membership take up and growth, membership representation amongst target areas, website and social media reach, technical publication circulation and downloads, participation of members at events and committee meetings.

1.2 Signification activities and results

Technical publications

- Safety Codes of Practice for Flammable Refrigerants, Carbon Dioxide and Ammonia Refrigerants
- Guidance Note 32 Pressure Switches and the PED, revision of Guidance Note 20 Fixed Leak Detection.
- Translation of REAL Alternatives learning materials into additional EU languages
- Service Engineer Guides published on Evacuation and Removal of Moisture, Server Room Maintenance, Reclaim of Refrigerant, Safety Alert, Refrigerant Containment, On-site Recycling, F Gas Compliance, Refrigerant Types, Air Handling Units, Weighing Scale Calibration.

International profile

- Meetings were held with ASHRAE (American Society) President and Executive Vice-President in London and at the ASHRAE Winter meeting in Atlanta to discuss co-operation initiatives
- · Participation in an ASHRAE international Associations Alliance meetings
- Education event at the AHR Expo in Chicago USA
- IOR is project managing a collaborative education project based on REAL Alternatives with a team of 13 international stakeholders as part of the EU co-funded LIFE environment programme.
- IOR is participating in an international research project on the application of cryogenic energy storage in cold stores, responsible for communications
- The IOR continued to support the UK membership of the International Institute of Refrigeration, an intergovernmental organisation
- Co-operation on technical information continued with the Institute of Refrigeration Ireland
- Memorandum of Association signed with the Indian Institute (ISHRAE) and Pakistani Institute (PHVAR)

Networking and exchange of information

- Free evening talks and webinars were given at various venues across the UK on the topics of Alternative Refrigerant Training, Point of Work Risk Assessment, Sustainable Refrigerated Transport, Positive Displacement Compressors, Refrigeration in London 1850-1900. A Presidential Address was made.
- The Women in RACHP network continued to promote diversity with two career development events in Scotland with IOR Scotland, Fujitsu Training Centre in Elstree and at Beijer Ref in Leeds.
- SIRACH site visits took place at Kelvion, BRE and during Green Energy Week at the Shard.
- Cool Talks Breakfast Briefings for service engineers were held in Milton Keynes, Basingstoke, Leeds, Bristol
- College Talks to engineering students took place at Dudley College, Eastleigh College City of Bath College
- Annual Dinners were held in London, Newcastle and Glasgow
- An international conference on the theme of HFO Refrigerants was held in Edinburgh with 170 participants.
- A seminar on low GWP alternative refrigerant training was held at the AHR show in Atlanta USA

Education and Training

- Student award winners were supported with free membership from the IOR-RAC Student of the Year Award, SkillFRIDGE, Trainee of the Year Award and Scottish Apprentice of the Year
- The REAL Alternatives E-learning platform was in being further updated as part of a 3 year EU co-funded project, working with 13 partners to provide train the trainer events in seven EU countries
- Work was started on the updating of the Fantastic Fridges schools website with additional content for advanced students and careers

Encouraging and promoting innovation

- The J&E Hall International Gold Medal for practical contribution to the development of RACHP technology was awarded to Mark McLinden for his work on the development of new more environmentally friendly refrigerants
- The Ted Perry student research award was made to Eman Hussein for her research on evaluation of metal organic materials for adsorption heat pumps
- The Service Engineers Section recognised the lifetime of Joseph Birch
- The Lightfoot Medal for the best IOR published paper went to Chris Druce for his paper on the impact of refrigerant charge capacity and efficiency of low GWP refrigerant systems
- The IOR continued to participate in the EU CryoHub project to promote the benefits of cryogenic energy storage for renewable refrigeration and power

The IOR benefits from significant contribution of volunteers, mainly members, through:

- Membership of Committees and Working groups to edit publications, peer review technical papers and organise conferences or events
- Technical talks at conferences, evening papers and workshops
- Judging panels for awards and medals
- Reviewing and grading of membership applications

1.3 Achievements and performance

Significant activities generating income for the period included:

- Membership and Service Engineers Section fees and subscriptions
- Annual dinners
- International Conference on HFO refrigerants
- Project grants (CryoHub energy storage research project, SIRACH sustainability network, REAL Alternatives for LIFE)

Success indicators were monitored and reported on at Trustee meetings included:

- · Membership levels and continued growth particularly in technician, student and young person membership
- Attendance levels at events & webinars
- Regional distribution of events
- Numbers of publications produced and downloaded
- Website and social media reach
- Engineering Council registrations

The IOR is a professional affiliate of the Engineering Council which allows its members to register with the Engineering Council through a licencing agreement with CIBSE. The Engineering Council provides valuable benchmarks against which the Trustees evaluate IOR activity and standards in areas such as Codes of Conduct, CPD, appeals procedures, diversity, corporate status, membership profile and marketing.

1.4 Fundraising

IOR does not engage in public fundraising or grant giving. It incurs expenditure related to membership marketing and manages awards for innovation some of which are funded by donation by external organisations. IOR members pay annual membership fees.

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1.6 Future planned expenditure

The IOR has a small permanent secretariat and this headcount was increased during the year to support strategic objectives in the areas of encouraging the use of publications and ensuring that they are kept up to date, promotion of development opportunities through social media, and supporting new member applications and engagement of new members. Key activities being undertaken in the next period requiring investment of additional resources are:

- Marketing designed to attract more individuals from the air conditioning and heat pump sector to the IOR
- International conferences on a 2-3 year basis with an event focusing on Organic Rankin Cycle in 2020
- Involvement in funded projects with a sustainability or education focus with applications being prepared to extend REAL Alternatives e-learning across Europe and to further develop SIRACH dissemination activity in the area of heating
- Extending the Fantastic Fridges website for schools and launching a competition to promote this website to schools, thus raising awareness of the benefit of the sector to the public
- Investment in upgrading IT and accounting software to improve effectiveness of administration.

GOVERNANCE & MANAGEMENT

2.1 Legal Status

The IOR Constitution sets out the objects, powers, membership processes, decision making, AGM and voting arrangements, functions and duties of trustees including how trustees are appointed and inducted. The Rules set out the processes around grades of membership, membership fee collection and appointment of President, President Elect, Trustees, Hon Treasurer and Chief Executive. It also outlines the roles of Committees and Working Groups.

Appointment of Trustees - The Board of Trustees of the IOR includes six elected trustees, a President, President-Elect, Past President and Hon Treasurer. One-third of the elected Trustees retire from office each year by rotation. Vacancies are advertised by newsletter and on the website. Nominations must be supported by two members. If the number of nominations exceed the number of vacancies an election is held. New Trustees are given information about their legal responsibilities, terms of reference for Trustees, past meeting minutes, strategy documents and organisational, policy and financial background. They take part in an induction briefing with the President and Chief Executive. The President-Elect is voted in by the Membership usually one year before the current President is due to stand down. Presidents may serve a term of two-three years.

Organisational structure - The Board of Trustees appoints various Committees and Chairmen to carry out the work of the Institute as shown below. Each Committee includes a representative of the Trustees and is supported by a member of the permanent IOR staff. The IOR employs a permanent secretariat of six staff members led by a Chief Executive. Staff remuneration, including that of key staff, and the benefits packages for all staff, are reviewed annually by a Finance Committee comprised of Trustees in line with average cost of living increases and if appropriate exceptional staff performance.

Decision making policies - Trustees meet once a quarter for decision making purposes and may also make a resolution in writing or by email, by agreement of a simple majority. The Trustees have the power to delegate certain functions to a committee by determining the terms of reference. They can also authorise the formation of Branches. The Finance Committee is made up of a minimum of the Hon Treasurer, President and Immediate Past President and has authority for financial policies, monitoring of investment performance and resourcing including remuneration of staff based on merit and cost of living considerations. Policies are in place covering the reimbursement of Trustee expenses, Declaration of conflicts of interest, Diversity, Data Management, Risk management, Volunteer management, Code of Conduct and Discipline procedure.

2.2 Trustees & Elections

The members who served as trustees on 1st April 2018 and throughout the year to 31st March 2019 are shown below. The current President, Kevin Glass FInstR, is due to complete his term as President in November 2020.



John Austin-Davies David Bostock Jacinta Caden Elected Mem.





Elected Mem. Elected Mem.



Graeme Fox



Steve Gill Elected Mem. Past President President



Kevin Glass



Elected Mem.



Nick Rivers



Elected Mem. Treasurer

On 8th November 2018 the term of office for the following elected members concluded and they stood down from the Board: Graeme Maidment, Chris Vallis.

2.3 Committees

- Annual Dinner P Arrowsmith (Chairman), R Borer, C Green, L Green, R Hurley, R Kebby, J Loiselle, E Wright, C Vallis.
- Education and Training J Skelton (Chairman), J Ellis, J Gartshore, S Benton, S Jones, S Gill, P Arrowsmith, K Glass
- Finance N Rivers (Chairman), S Gill, K Glass
- International Refrigeration Committee A Pearson (Chairman), M Camacho, J Evans, R Lawton, R Low, R Kebby, J Miller. The work of the Committee was supported by the following subscribing organisations: Cambridge Refrigeration Technology, GEA, Honeywell, Howden Compressors, Mexichem, J&E Hall International, Star Refrigeration, Spirex Sarco.
- Membership R Lamb (Chairman), J Hobley, B Lyons, P Singh, K Glass, B Burton, A Thomas, T Owens, S Kayes, S Parris, A Riches.
- Papers and Publications C Vines (Chairman), R Al Dadah, DJG Butler, A Gigiel, G Ye, D Cotter, J Thompson, P Wilson, R Finlayson, J Whitwell.
- Service Engineers' Section & ACHPI Management Panel G Adams (Chairman), I Fisher, D Garcia, P Stacey, J Broughton, W Thompson, D Sowden, M Nankivell, G Wright, R Wright, B Parker, A Radford.
- Technical D Paget (Chairman), A Pearson, P Arrowsmith, S Benton, D Butler, D Colbourne, J Evans, C Green, G Wright, S Jones.

2.4 Branch & Society Contacts

- East Anglian Refrigeration Society Cliff Sealy
- Northern Branch Matt Morton
- IOR Scotland Julie Murray
- London Refrigeration Society (affiliated) Ron Filer, B O'Reilly
- Hampshire Society (affiliated) John Hobley
- Birmingham Society (affiliated) Paul Singh

2.5 External Representation & Co-operation

- Air Conditioning and Refrigeration Industry Board (IOR Directors J Ellis, S Gill, K Glass)
- ASHRAE Associate Alliance (S Gill, A Pearson)
- British Standards Institution and European and International Standards Review Committees (AB Pearson, D Colbourne, S Benton, D Paget, J Evans and others)
- International Institute of Refrigeration (UK delegate, J Evans)
- SIRACH (G Maidment, J Evans, L Waters)
- Trailblazer Apprenticeship Employers Group (J Austin-Davies, M Rodway)

2.6 Staff Members

- Miriam Rodway Chief Executive
- Bawani Sarvendran Accounts
- Clare Tooth Membership
- Lisa Waters Events Manager
- Raluca Sisiu Project Manager
- Symmone Cupidore Publications

2.7 Professional advisors

- Auditor Myrus Smith Chartered Accountants, Norman House, 8 Burnell Road, Sutton SM1 4BW
- Legal advisor Third Sector Law, 28-30 High Street, Guildford GU1 3EL
- Bankers CAF Bank, 25 Kings Hill Ave, Kings Hill, West Malling, Kent ME19 4JQ and Royal Bank of Scotland Business Services.

FINANCE & INVESTMENT POLICIES

The Trustees have prepared this report and results in the form of a Statement of Financial Activities in order to comply with the Statement of Recommended Practice for Charities.

The Trustees confirm that they have referred to the guidance contained in the Charity Commission's general guidance on public benefit when reviewing the Institute's aims and objectives and in planning future activities. The range of publications, events and projects provide benefit to the public by improving the effectiveness and efficiency of the refrigeration applications which underpin many aspects of public life. Specific activities and research such as developing a new standard for apprenticeships, encouraging careers, guidance to improve safety and encourage the use of low GWP refrigerants have a benefit to the environment and the public. Activities and outputs are made widely available through a well visited website and promoted via trade press, exhibitions and a free events programme.

3.1 Financial performance

The Trustees anticipated a surplus this financial year due to one-off income from the organisation of a major international conference. The IOR maintains a diverse range of income sources based on membership fees as well as a well-supported technical events and publications programme in order to mitigate risk of over-reliance on one income source. The audited accounts for the year show an operating surplus of £30,359 before investment revaluation. Taking into account a small loss of £3,630 from the annual reappraisal of investment values as at 31^{st} March there was a net increase in funds of £26,729 for the year.

The reconciliation of funds to be carried forward shows a total of £800,691 of which £373,789 were held in restricted funds that can only be used for specific purposes and £426,902 in the general fund whose use is unrestricted.

Business plans and financial forecast for the next five years aim to continue to invest reserves to grow and strengthen the IOR based on pursuing the strategic projects and services detailed in this report. Allocating resources to growing membership remains a priority both to extend the Institute's range of benefits to a wider community and to provide sustainable income to maintain services which offer a public benefit. The three projects in the IOR portfolio represent opportunities to provide additional services supported with external co-funding for the next 18 months. Budgets are in place to further improve professionalism of operations through improvements to accounting and IT as well as continued investment in professional marketing advice for specific communications projects in the next financial year which will provide a long term benefit.

Factors that could affect future financial performance include membership levels, investment values and the continued availability of EU funding for projects after the UK leaves the EU. The Trustees have in place financial forecasts and plans to encourage targeted membership growth, to manage investment portfolios and to ensure there is minimal financial exposure of EU funded projects. There are also long term plans to improve income from publishing and international conferences in the future.

3.2 Management of funds

Reserves policy - The Trustees have established a reserves policy to minimise the risk to the Charity of a downturn in income from its activities and allow for the development of new areas of activity to meet its long-term objectives. Trustees review this policy annually and consider that the appropriate level of reserves should be equivalent to six months operating expenditure, which is currently £281,428. The level of reserves showing at year end is £351,259 (unrestricted funds of £426,902 less tangible assets of £75,643). It should be noted that £34,049 of these reserves relate to cash balances held by IOR Branches. The business plan managed by the Board of Trustees ensures that funds surplus to the reserves threshold will be reinvested in planned strategic activity in improved marketing and communications, technical publications production and IT efficiency improvements to further the charity's objectives.

Cash management - Cash surplus to immediate needs is invested prudently in line with recognised good practice for Charities, in a balanced mix of bank and building society deposit accounts with the Royal Bank of Scotland, CAF Bank (Charity Aid Foundation), Virgin Money Building Society, Cambridge and Counties Bank as well as in tax-free Charity investment bonds, which provide long term growth as well as substantial regular dividends. The IOR maintains a broad range of investments to minimise risk. Over the longer term investment values have increased beyond that which would have been expected from simple bank-account based savings and these bonds continue to yield dividends. Trustees monitor the value of the investments through reports at each Board meeting.

Risk management -Trustees carry out a regular review of risks associated with the on-going management of the Charity and a risk register is held. Trustees are satisfied that processes and procedures are in place to mitigate the impact of such risks on the operations of the charity. The principle risks identified have been:

- Staffing the Board review annually staffing requirements and opportunities to invest in IT to ensure
 adequate resources are available and that these are deployed efficiently with no over-reliance on one
 individual.
- Membership profile the need to attract more young members to ensure a continued membership base in
 the long term future has been identified. Activities targeted at recruiting students and young people,
 particularly those undertaking the new Trailblazer Apprenticeship are in place. Activities are also being
 developed to attract more of those working in air conditioning and heat pumps to ensure a balanced
 representation of those working in the sector.
- Over-reliance on a small number of volunteers and balance of member input the increasing technical and
 educational output needs an increased volunteer input with a more diverse range of experience. An annual
 recruitment drive to attract new member volunteers, specifying air conditioning or training experience, has
 been implemented.
- Unpredictability of investment income and market revaluation of investments remains a risk which the IOR
 addresses by ensuring a varied portfolio of charity investments, monitoring throughout the year their growth
 and returns and having a split of surplus funds between investments and bank/building society deposit
 accounts.
- Uncertainty about the UK funding of EU projects after the UK leaves the EU direct communications with DEFRA and with UK based project monitoring teams are maintained so that the situation can be monitored.
- Uncertainty about the role of IOR as a UK project manager after the UK leaves the EU Communications
 from UK representatives of funding agencies have given monitored and the UK government has agreed to
 underwriting EU project spending.

Designated and Restricted funds - expenditure is made directly for the purposes for which these funds were established as shown in the notes to the accounts. Planned expenditure for the next period is as follows:

- Presidents fund will continue to support from its income, education initiatives as considered most effective
 by the President and Board including a significant expenditure on updating and extending an on line
 resource for the education of school aged children "Fantastic Fridges" and marketing support for a
 competition to raise awareness of the website with schools.
- Ted Perry award will provide prizes for student researchers and to all student or apprentice winners identified by industry competitions
- Mike Tinsley fund to support a disabled engineer continues to be promoted widely
- CryoHub project grant will fund IOR costs related to dissemination of information about this 54 month EU sustainability research project
- Alternative Refrigerants fund will help to cover IOR costs for expanding existing learning materials on low GWP refrigerants internationally. The accounts are showing a deficit on this fund due to initial costs at the mid-point of this project, and Trustees continue to review expenditure levels over the remaining 18 months of the project and will if necessary make a transfer from general funds to cover this deficit.

The financial statements that follow show the current values of the restricted, unrestricted and cash funds of the Institute.

STATEMENT OF TRUSTEES' RESPONSIBILITIES

The trustees are responsible for preparing the Council's Annual Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The law applicable to charities in England & Wales requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and of the incoming resources and application of resources of the charity for that period. In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities SORP 2015 (FRS 102);
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in operation.

The trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charities (Accounts and Reports) Regulations 2008 and the provisions of the trust deed. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Kevin Glass FInstR President

Date 15 August 2019

INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF

THE INSTITUTE OF REFRIGERATION

(Registered Charity No. 1166869)

Opinion

We have audited the financial statements of The Institute of Refrigeration for the year ended 31 March 2019 which comprise the Statement of Financial Activities, the Balance Sheet, Cash Flow Statement and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charity's affairs as at 31 March 2019, and of its incoming resources and application of resources, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice;
 and
- have been prepared in accordance with the requirements of the Charities Act 2011.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the charity in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the trustees' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the trustees have not disclosed in the financial statements any identified material uncertainties that may
 cast significant doubt about the charity's ability to continue to adopt the going concern basis of accounting
 for a period of at least twelve months from the date when the financial statements are authorised for issue.

Other information

The trustees are responsible for the other information. The other information comprises the information included in the trustees' report other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF

THE INSTITUTE OF REFRIGERATION

(Registered Charity No. 1166869)

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters in relation to which the Charities (Accounts and Reports) Regulations 2008 require us to report to you if, in our opinion:

- the information given in the financial statements is inconsistent in any material respect with the trustees' report; or
- sufficient accounting records have not been kept; or
- the financial statements are not in agreement with the accounting records; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of trustees

As explained more fully in the trustees' responsibilities statement set out on page 7, the trustees are responsible for the preparation of financial statements which give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditor under section 145 of the Charities Act 2011 and report in accordance with regulations made under section 154 of that Act.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and the charity's trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Norman House, 8 Burnell Road, Sutton Surrey SM1 4BW

MYRUS SMITH Chartered Accountants and Statutory Auditor

15th August 2019

Myrus Smith is eligible to act as an auditor in terms of section 1212 of the Companies Act 2006.

(Registered Charity No. 1166869)

STATEMENT OF FINANCIAL ACTIVITIES FOR THE YEAR ENDED 31 MARCH 2019

	Notes	Unrestricted Funds	Restricted Funds	Total 2019 £	Total 2018 £
Income from:		~	~	~	~
Donations and membership	2	192,747	3,860	196,607	188,007
Charitable activities	3	235,441	134,619	370,060	288,079
Other trading activities	4	1,507	-	1,507	1,456
Investments	5	7,357	14,845	22,202	21,400
Other	6	2,839		2,839	2,494
Total		439,891	153,324	593,215	501,436
Expenditure on:					
Raising funds and membership	7	36,336	_	36,336	36,044
Charitable activities	8	368,816	157,704	526,520	482,171
Chantasis asimiles	· ·				
Total		405,152	157,704	562,856	518,215
Net income/(expenditure) before					
gains/(losses) on investments	10	34,739	(4,380)	30,359	(16,779)
Gain/(loss) on investment assets		(171)	(3,459)	(3,630)	6,729
,					
Net income/(expenditure)		34,568	(7,839)	26,729	(10,050)
Transfers between funds	16 & 17	(15,000)	15,000	-	-
Net movement in funds		19,568	7,161	26,729	(10,050)
Reconciliation of funds					
Total funds brought forward		407,334	366,628	773,962	784,012
Total funds carried forward		£426,902	£373,789	£800,691	£773,962

The Statement of Financial Activities includes all gains and losses recognised in the year.

All income and expenditure derives from continuing activities.

(Registered Charity No. 1166869)

BALANCE SHEET AS AT 31 MARCH 2019

	Notes		2019	20	18
		£	£	£	£
Fixed Assets					
Tangible assets	12		75,643		77,068
Investments	13		484,261		487,891
			559,904		564,959
Current Assets					
Debtors	14	148,145		46,237	
Cash at bank and in hand		269,738		264,187	
		417,883		310,424	
Creditors					
Amounts falling due within one year	15	177,096		101,421	
Net Current Assets			240,787		209,003
Net Assets			£800,691		£773,962
Funds	40		070 700		000 000
Restricted	16		373,789		366,628
Unrestricted	17		426,902		407,334
			£800,691		£773,962

Approved on behalf of the Council on 15th August 2019 and signed on its behalf by

Kevin Glass FInstR

(Registered Charity No. 1166869)

CASH FLOW STATEMENT FOR THE YEAR ENDED 31 MARCH 2019

	2019 £	2018 £
Cash flows from operating activities Net movement in funds per statement of financial activities Adjustments for:	26,729	(10,050)
Depreciation charges Dividends and interest receivable	5,007 (22,202)	6,056 (21,400)
(Gains) / losses on revaluation of investments (Increase) / decrease in debtors Increase / (decrease) in creditors	3,630 (102,364) 75,675	(6,729) (14,472) (219)
Net cash provided by / (used in) operating activities	(13,525)	(46,814)
Cash flows from investing activities		
Dividends and interest received Purchase of listed investments	22,658 -	20,559
Purchase of tangible fixed assets	(3,582)	(2,149)
Net cash provided by / (used in) investing activities	19,076	18,410
Change in cash and cash equivalents in the year	5,551	(28,404)
Cash and cash equivalents brought forward	264,187	292,591
Cash and cash equivalents carried forward	£269,738	£264,187
	2019 £	2018 £
Analysis of Cash and cash equivalents		
Cash at bank and in hand	£269,738	£264,187

(Registered Charity No. 1166869)

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019

1. ACCOUNTING POLICIES

a) Basis of preparation

The charity constitutes a public benefit entity as defined by FRS 102. The financial statements have been prepared under the historical cost convention in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) issued on 16 July 2014 (as updated through Update Bulletin 1 published on 2 February 2016), the Financial Reporting Standard applicable in the United Kingdom and Republic of Ireland (FRS 102), the Charities Act 2011 and UK Generally Accepted Accounting Practice.

The significant accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented unless otherwise stated.

b) Income recognition

Items of income are recognised in the financial statements when all of the following criteria are met:

- The charity has entitlement to the funds;
- any performance conditions have been met or are fully within the control of the charity;
- there is sufficient certainty that receipt of the income is considered probably; and
- the amount can be measured reliably.

c) Expenditure recognition

Expenditure is recognised once there is a legal or constructive obligation to make payment to a third party, it is probable that settlement will be required and the amount can be measured reliably. Expenditure is classified under the following activity headings:

- Costs of raising funds comprise those costs associated with maintaining the membership database
- Expenditure on charitable activities includes the cost of running the institute's educational programmes, conferences, annual dinner and other networking events and the dissemination of technical publications

Expenditure includes those costs which relate directly to each activity and also indirect costs, including governance costs that are necessary to support those activities. Support costs are allocated to activities on the basis of staff time.

d) Fund accounting

Unrestricted general funds are those funds which are freely available for use in furtherance of the objects of the charity and which have not been designated for a particular purpose.

Designated funds are unrestricted funds set aside by the trustees for particular purposes.

Restricted funds are funds which can only be used in accordance with the wishes of the donor or which have been raised for a particular purpose.

e) Fixed assets and depreciation

Tangible assets costing more than £500 are capitalised. Depreciation is provided so as to write off the cost of each asset over its estimated useful life at the following rates:

Freehold property 2% straight line Office Equipment 25% straight line

f) Financial instruments

Debtors and creditors with no stated interest rate and receivable or payable within one year are recorded at transaction price. Any losses arising from impairment are recognised in the Statement of Financial Activities.

(Registered Charity No. 1166869)

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019 /contd...

g) Investments

Investments are initially recognised at cost and are subsequently restated at market value at the end of each accounting period with the gain or loss reported in the Statement of Financial Activities.

h) Leases

Operating lease rentals are charged to the Statement of Financial Activities on a straight line basis over the period of the lease.

i) Pensions

The Institute operates a defined contribution pension scheme. Contributions are charged to the Statement of Financial Activities in the year to which they relate.

2. DONATIONS AND MEMBERSHIP

	Unrestricted Funds	Restricted Funds	Total 2019	Total 2018
	£	£	£	£
Membership subscriptions				
General	168,766	-	168,766	161,376
SES and ACHPI	23,040	-	23,040	23,242
Donations				
Other donations and sponsorship	941	3,860	4,801	3,389
	£192,747	£3,860	£196,607	£188,007

Of the £188,007 recognised 2018, £185,018 was unrestricted funds and £2,989 was restricted funds.

3. INCOME FROM CHARITABLE ACTIVITIES

	Unrestricted Funds £	Restricted Funds £	Total 2019 £	Total 2018 £
Project grants	18,263	134,619	152,882	147,170
Annual dinner and networking events	122,628	, -	122,628	111,504
Conferences and exhibitions	65,158	_	65,158	555
ACRIB management fee	28,000	_	28,000	27,500
Sales of publications	1,392	-	1,392	1,350
	£235,441	£134,619	£370,060	£288,079

Of the £288,079 income recognised in 2018, £153,209 was unrestricted funds and £134,870 was restricted funds.

4. OTHER TRADING ACTIVITIES	Unrestricted Funds	Restricted Funds	Total 2019	Total 2018
Advertising and merchandise	£1,507	£Nil	£1,507	£1,456

All of the income recognised in 2018 was unrestricted funds.

5. INVESTMENT INCOME	Unrestricted	Restricted	Total	Total
	Funds	Funds	2019	2018
Bank interest and dividends	£7,357	£14,845	£22,202	£21,400

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NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019 /contd...

6. OTHER INCOME

	Unrestricted Funds	Restricted Funds	Total 2019	Total 2018
Royalties	£2,839	£Nil	£2,839	£2,494

All of the £2,494 income recognised in 2018 was unrestricted funds.

7. COST OF RAISING FUNDS

	Direct costs £	Support costs £	Total 2019 £	Total 2018 £
Membership scheme				
General İOR	19,731	12,244	31,975	31,358
SES and ACHPI	2,691	1,670	4,361	4,686
	£22,422	£13,914	£36,336	£36,044

All of the £36,044 expenditure recognised in 2018 was charged to unrestricted funds.

8. EXPENDITURE ON CHARITABLE ACTIVITIES

	Direct costs	Support costs	Total 2019	Total 2018
	£	£	£	£
Analysis by activity:				
Education and technical	49,595	13,074	62,669	67,465
Member services	44,622	15,409	60,031	55,254
Projects -				
CryoHub	23,405	6,537	29,942	24,335
SIRACH	10,838	3,268	14,106	15,009
Real Alternative 4 Life	137,654	21,758	159,412	157,960
Annual dinner and networking events	115,559	6,537	122,096	117,952
Conferences and exhibitions	65,377	12,887	78,264	44,196
	£447,050	£79,470	£526,520	£482,171

Of the £482,171 expenditure recognised in 2018, £315,168 was charged to unrestricted funds and £167,003 was charted to restricted funds.

9. SUPPORT COSTS

	Raising funds £	Charitable activities £	Total 2019 £	Total 2018 £
Staff costs	3,939	22,500	26,439	25,798
Office costs	4,713	26,915	31,628	28,745
Premises costs	1,530	8,735	10,265	8,936
Legal and professional	1,249	7,134	8,383	5,793
Governance costs	1,050	6,000	7,050	4,800
Subscriptions	1,433	8,186	9,619	10,048
	£13,914	£79,470	£93,384	£84,120

(Registered Charity No. 1166869)

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019 /contd...

10.	NET INCOME/(EXPENDITURE) FOR THE YEAR	2019	2018
	This is stated after charging: Operating lease rentals Depreciation Auditors' remuneration - audit services - non-audit services	£3,210 £5,007 £3,900 £600	£2,708 £6,056 £4,200 £600
11.	STAFF COSTS	2019 £	2018 £
	Wages and salaries Social security costs Pension costs Health insurance	202,105 19,203 16,624 4,011	172,322 16,633 9,947 3,337
		£241,943	£202,239
	The number of employees who received total employee benefits (excluding more than $£60,000$ is as follows:	employer per 2019 No.	nsion costs) of 2018 No.
	£70,000 - £80,000	1	1
	The average monthly number of employees was 6 (2018: 5). The full employees analysed by activity is as follows:	time equivale 2019 No.	ent number of 2018 No.
	Membership scheme and member services Education and technical Projects Dinner, conferences and other networking events Support	1.3 0.6 1.5 0.9 0.9	1.0 0.5 1.0 0.9 0.7

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(Registered Charity No. 1166869)

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019

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12.	TANGIBLE FIXED ASSETS	, oonta	Freeho Proper		Office Equipment £	Total £
	Cost At 1 April 2018 Additions		123,08	36 -	72,986 3,582	196,072 3,582
	At 31 March 2019		123,08	36	76,568	199,654
	Depreciation At 1 April 2018 Charge for the year		48,7 ² 2,46		70,261 2,545	119,004 5,007
	At 31 March 2019		51,20)5	72,806	124,011
	Net Book Value At 31 March 2019		£71,88	31	£3,762	£75,643
	At 31 March 2018		£74,34	13	£2,725	£77,068
13.	FIXED ASSET INVESTMENTS		Unrestricted Funds		stricted unds	Total Funds
	Listed UK Investments		£		£	£
	Market value 1 April 2018 Net unrealised investment gains/(losses)		157,076 (171)		330,815 (3,459)	487,891 (3,630)
	Market value 31 March 2019		£156,905	£	327,356	£484,261
	Historical cost as at 31 March 2019		£91,835	£	211,533	£303,368
	Historical cost as at 31 March 2018		£91,835	£	211,533	£303,368
14.	DEBTORS				2019	2018
	Trade debtors Prepayments and accrued income Other debtors				£ 20,952 115,974 11,219 £148,145	£ 6,694 28,092 11,451 £46,237
15.	CREDITORS				2019 £	2018 £
	Amounts falling due within one year: Other creditors Accruals Deferred income Social security and other taxes				113,935 13,570 42,495 7,096 £177,096	39,455 12,456 43,925 5,585 £101,421

Deferred income relates to subscriptions received in advance for 2019/20 and conference income for which the event takes place in 2019/20.

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NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019 /contd...

16. RESTRICTED FUNDS

	Balance 1 April 2018 £	Income	Expenditure	Investment gains/ (losses)	Transfers between funds	Balance 31 March 2019 £
President's Fund	271,463	15,188	3,350	(4,661)	-	278,640
Mike Tinsley Fund	39,421	1,201	-	413	-	41,035
Refrigeration Aberdeen Fund	41,865	1,458	-	485	-	43,808
Ted Perry Award	23,347	858	681	304	-	23,828
CryoHub Project	11,450	25,902	17,823	-	-	19,529
Real Alternative 4 Life	(20,918)	108,717	135,850	-	15,000	(33,051)
	£366,628	£153,324	£157,704	£(3,459)	£15,000	£373,789

The President's Fund was established to enhance the standing of the Institute. In addition to the special donations below, it has been supported by J Sainsbury plc, Star Refrigeration Ltd, Dean & Wood Ltd, Copeland Corp, WR Refrigeration and C-Dig.

"Mike Tinsley Fund" is Linde Refrigeration Ltd's memorial to Mike Tinsley for the benefit of the industry and, as opportunity arises, to encourage young refrigeration engineers, especially the physically handicapped.

"Ted Perry Award", funds the purchase of a set of ASHRAE manuals as a prize to the winner of the Ted Perry Memorial Award.

The CryoHub project is a programme funded by the European Commission to develop and investigate the potential of large-scale cryogenic energy storage at refrigerated warehouses and food factories. There are a number of project partners involved in the programme. The Institute's contribution relates to communication, branding and dissemination.

The Real Alternative 4 Life project is a programme funded by the European Commission and includes a number of partner organisations from across the EU, including trainers, universities and trade associations. The aim of the project is to address climate change and support the rapid move to alternatives to high GWP refrigerants. The Institute's role is the project manager responsible for the management of all activities of the consortium of partners. The project is currently projected to run until June 2020. The deficit of £33,051 at the end of the year (after a budgeted transfer of £15,000 from designated funds) arises partly as result of front-loading of expenditure in the first year of the project. Additionally, the grant funding does not cover 100% of the eligible costs and so it is anticipated that a transfer from general funds may be necessary at a later date. This will be kept under review as the project progresses.

[&]quot;Refrigeration Aberdeen Fund" was a gift to the Scottish Branch.

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NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019 /contd...

16. RESTRICTED FUNDS / cont....

Comparative information for the previous accounting year is as follows:

	Balance 1 April 2017	Income	Expenditure	Investment gains/ (losses)	Transfers between funds	Balance 31 March 2018
	£	£	£	£	£	£
President's Fund	257,919	14,025	4,473	3,992	-	271,463
Mike Tinsley Fund	38,579	1,100	-	(258)	-	39,421
Refrigeration Aberdeen Fund	40,837	1,335	-	(307)	-	41,865
Ted Perry Award	25,107	785	2,361	(184)	-	23,347
CryoHub Project	831	25,902	15,283	-	-	11,450
Real Alternative 4 Life		108,968	144,886	-	15,000	(20,918)
	£363,273	£152,115	£167,003	£3,243	£15,000	£366,628

17. UNRESTRICTED FUNDS	Balance 1 April 2018 £	Income £	Expenditure (incl. losses)	Transfers between funds	Balance 31 March 2019 £
General Fund Designated Fund	387,334	439,891	405,323	-	421,902
- Alternative Refrigerants	20,000		<u>-</u>	(15,000)	5,000
	£407,334	£439,891	£405,323	£(15,000)	£426,902

The Alternative Refrigerants designated fund was set up by the trustees utilising the surplus from the Gustav Lorentzen conference. The purpose of the fund is to cover the costs of alternative refrigerants training on future IOR projects. A transfer of £15,000 has been made towards the costs of the Real Alternatives 4 Life project.

Comparative information for the previous accounting year is as follows:

	Balance 1 April 2017 £	Income £	Expenditure £	Transfers between funds	Balance 31 March 2018 £
General Fund Designated Fund - Alternative	385,739	352,807	351,212	-	387,334
Refrigerants	35,000	-	-	(15,000)	20,000
	£420,739	£352,807	£351,212	£(15,000)	£407,334

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NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019 /contd...

18. ANALYSIS OF NET ASSETS BETWEEN FUNDS

	Tangible fixed	lavestasants	Net current	Total
	assets	Investments	assets	2019
Restricted Funds President's Fund Mike Tinsley Fund Refrigeration Aberdeen Fund Ted Perry Award CryoHub Project Real Alternative 4 Life	£	£ 253,542 25,346 29,804 18,664 327,356	£ 25,098 15,689 14,004 5,164 19,529 (33,051) 46,433	£ 278,640 41,035 43,808 23,828 19,529 (33,051) 373,789
Unrestricted Funds General Fund Alternative Refrigerants Fund	75,643 - 75,643	156,905	189,354 5,000 194,354	421,902 5,000 426,902
Total Funds at 31 March 2019	£75,643	£484,261	£240,787	£800,691

Comparative information for the previous accounting year is as follows:

	Tangible Fixed Assets	Investments	Net Current Assets	Total 2018
Restricted Funds	£	£	£	£
President's Fund		258,203	13,260	271,463
Mike Tinsley Fund	-	24,933	14,488	39,421
Refrigeration Aberdeen Fund	-	29,319	12,546	41,865
Ted Perry Award	-	18,360	4,987	23,347
CryoHub Project	-	10,300	11,450	11,450
Cryonub Froject	-	-	(20,918)	(20,918)
			(20,910)	(20,916)
	-	330,815	35,813	366,628
Unrestricted Funds General Fund				
Alternative Refrigerants Fund	77,068	157,076	153,190	387,334
	-	-	20,000	20,000
	77.000	157.070	170.100	407.004
	77,068	157,076	173,190	407,334
Total Funds at 31 March 2018	£77,068	£487,891	£209,003	£773,962

(Registered Charity No. 1166869)

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2019 /contd...

19. COMMITMENTS

The total future minimum lease payments under non-cancellable operating leases are as follows:

	2019	2018
	£	£
Due within:		
One year	3,040	903
One to five years	4,053	-
		
	£7,093	£903

20. RELATED PARTY DISCLOSURES

Air Conditioning and Refrigeration Industry Board (ACRIB)

The Institute charged ACRIB £35,781 (2018: £34,434) for shared facilities, management and expenses during the year. £16,395 of this remained outstanding at the year end.

The Institute paid ACRIB a membership subscription of £5,496 (2018: £5,234).

The Institute has a number of trustees who are also directors of ACRIB.

Key Management

The total employee benefits of key management amounted to £84,917 (2018 : £86,862). Employee benefits under FRS 102 includes gross salaries, employers national insurance, employers pension contributions and benefits in kind.

Trustees remuneration of expenses

The trustees received no remuneration in 2019 or 2018. Travel expenses of £2,550 (2018 : £Nil) were reimbursed or paid on behalf of two (2018 : Nil) trustees.

21. CHARITY STATUS AND TAXATION

The Institute of Refrigeration is a charitable incorporated organisation (CIO) registered with the Charity Commission in England and Wales (No. 1166869).

As a registered charity, the Institute is exempt from Corporation Tax on its charitable activities.