Date: Tuesday 21st May 2019
Time: 10:30–13:30
Venue: Edinburgh Centre for Climate Innovation
Resources: Available here

MINUTES:
Energy & Water Management Topic Support Network Meeting

Attendees:

Abdelrahman	Zaky	The University of Edinburgh	AZ
Aisling	O'Reilly	The University of Edinburgh	AO
Alan	Hughes	The University of Edinburgh	AH
Allan	Crooks	Zero Waste Scotland	AC
Alastair	Thompson	Scottish Government	AT
Andrew	Wilkinson	QMPF	AWi
Andrew	Wholley	Mott MacDonald	AWh
Andy	Anderson	APUC	AA
Annie	Shepperd	Salix Finance	AS
Austen	Bamford	Ameresco	AB
Bill	Henderson	Robert Gordon University	BH
Chris	Larkins	Heriot-Watt University	CL
David	Charles	University of Strathclyde	DC
David	Beards	Scottish Funding Council	DB
David	Jack	The University of Edinburgh	DJa
David	Jordan	University of Stirling	DJo
David	Stutchfield	University of St Andrews	DS
David	Williams	Robert Gordon University	DW
Dean	Drobot	The University of Edinburgh	DD
Derek	Mitchell	University of Dundee	DM
Jackie	Beresford	Dundee & Angus College	JB
Jennifer	Roberts	Salix Finance	JR
Kenny	Allen	Glasgow Caledonian University	KA
Neil	Thompson	Queen Margaret University	NT
Robert	MacGregor	The University of Edinburgh	RM
Robert	Kilpatrick	University of Strathclyde	RK
Roddy	Yarr	University of Strathclyde	RY
Steven	Gregg	University of the Highlands and Islands	SG
Torran	McNeill	Salix Finance	TM

Apologies:

Aidan	McColgan	University of Dundee
John	Monaghan	Heriot-Watt University

	SUMMARY OF DISCUSSIONS	ACTIONS
1	**Welcome, Apologies and Introductions** *Dean Drobot, Co-Convener, University of Edinburgh* Everyone was welcomed to the event.	
2	**The SFC University Carbon Reduction Fund 2019/20** *David Beards, Senior Policy Officer - Capital and Climate Change, SFC* Sector emissions are currently 300-380,000 tonnes of CO_2 per year but there are still issues with defining scope and quality of data. The sector has been achieving efficiencies but it is also expanding and has various estate issues: backlog maintenance, 25% of the estate is in condition category C&D (poor/inoperable), quite low on space utilization, higher level of emissions per FTE than the rest of the UK. There is now good agreement for more action and new targets. The Scottish Government's new Climate Change Bill will likely require the public sector to sign up to steeper targets. Previous University Carbon Reduction Funds (UCRF) have been very successful: • In 2013 (£20million), 31 bids from 15 institutions, 3 projects funded, saved 16,959 tCO_2 • In 2017 (£16.2million), 17 bids from 13 institutions, 13 projects funded, saved 9,117 tCO_2 • In 2018 (£40million), 19 bids from 11 institutions, 10 projects funded. There will be £55 million available this year and the Scottish Funding Council (SFC) want to see more focus on carbon reductions. We would encourage people to think ambitiously about strategic & collaborative projects. If you have an idea for a project that can't be mobilised this year there will be more money next year so please submit an expression of interest. Priorities this year are: • Excellent student experience • Carbon reductions • Laboratory emissions • Maintenance backlog • Collaborative developments	

	Collaboration will also give the chance to bring in other sources of funding and, crucially, enables colleges to access funds via a partnership with a university. Conditions for projects: relevance to programme aims, to advance estates strategy, deal with backlog maintenance, comply with state aid rules, sound financial projections & deploy the funding in line with the programme deadlines. **Please submit your expressions of interest here** (Deadline end of July 2019). **Universities for the Future Fund (£19million)** *Jennifer Roberts, Programme Manager (Scotland), Salix Finance* The fund aims to reduce the carbon footprint of Scottish universities and is accessible for all. SFC specifically interested in backlog maintenance, general reduction of emissions, student engagement & collaboration. Examples of project themes: Low energy data centres, site wide approach to low energy lighting, student union, lecture theaters & libraries to improve learning experience, building controls, collaboration & student engagement. Payback & carbon criteria: • Standard projects should have a maximum payback of 10 years and cost no more than £400 per tCO_2e saved. • Gas/oil projects should have a maximum payback of 15 years and cost no more than £600 per tCO_2e saved. Application process: No maximum loan value, would like a firm commitment from the institution, longer term repayments will be considered for a particularly challenging project so please get in touch. **Questions & Discussion** **DD:** What are key issues with applications? **JR:** Issue of readiness last year and also backlog maintenance projects having poor payback periods. One way to overcome this is to include them as part of a larger suite of work.	
3	**Low Carbon Infrastructure Transition Programme (LCITP) Funding** *Allan Crooks, Programme Manager – Energy and Low Carbon Heat, ZWS* Support available from Zero Waste Scotland (ZWS) Low Carbon Heat Team: • Technical solutions • Capacity building • Industrial decarbonisation • Expert guidance	

	Low Carbon Infrastructure Transition Programme (LCITP) is an EU project in partnership with the Scottish Government. It aims to support substantive low carbon projects across Scotland. Project support is available for: • Catalyst (initial strategy & feasibility) • Development (final business case & investment options) • Demonstrator (if a technology has not been proven in Scotland) Up to £100k is available for development and funding is capped at £10million (co-funded). Won't support developing technologies or transport only projects (but would if part of larger network/system). **Case studies** **Stirling Renewable Heat Demonstration Project:** CHP and waste water heat recovery. Lead partners Stirling Council and Scottish Water. £4.1million with £2million from LCITP. **Glenrothes District Heat Network:** RWE Markinch Biomass Plant. Lead partners Fife Council and RWE. £24million with £8.5million from LCITP. **Queens Quay (West Dunbartonshire):** Water source heat pump. Lead Partner West Dunbartonshire Council. £15million with £6million from LCITP. **Regional Performance Centre for Sport (Dundee):** Ground Source Heat Pump, District Heating Network & Solar Thermal. £6million with £3million from LCITP. In summary, there is no shortage of finance but there is a shortage of robust projects and the public sector cannot deliver this without partnership with the private sector. **Questions & Discussion** **DD:** A lot of the vision for the project sits at Energy Manager level and it is really about selling the vision high up the organisation. There is no shortage of funding out there but there is a shortage of robust projects – lots of feasibility studies fail under scrutiny. Also I don't think we can rely on consultants and technology providers. We need to lead and to challenge them and we have to bring in more private sector funding to progress these projects. The majority of the projects are delivered by subsidy which isn't sustainable so we have to think about how these projects will be delivered going forward. We need to form a learning forum to push this forward – perhaps through EAUC? **AC:** One of issues is lack of time to get the feasibility side to bring the institution on the journey. Early stage looking at where heat demand lies and	

	how you might serve that. It is really important to screen all opportunities and focus on the correct one – ZWS can support with this. **DD:** Is there a forum for sources of private sector finance? **AC:** Approach LCIPT would be the first port of call just now (LCITP@gov.scot)	
4	**The Role of Private Finance in Delivering FHE Energy Strategy** *Andrew Wilkinson, Director, QMPF* Financial advisory business specialising in the education sector. Will cover the different private finance routes that are open and how projects are assessed. **Potential structuring options** • Cash reserves and capital grants • Other government funding • Corporate loans/asset finance • Off balance sheet/Energy Performance Contract (EPC) The route will be determined by the project type & scale. Key considerations are: Asset/project details, project size, returns, project complexity, standard documents, balance sheet treatment & level of risk transfer. Is there are requirement to have things off balance sheet? Straightforward projects can use a loan but more complex projects may require a Joint Venture (JV) with a partner who can bring experience & capital. For a small project it is not worth the hassle of the risk transfer/JV negotiations. An Energy Performance Contract (EPC) is where energy efficiency projects are delivered by an Energy Services Company (ESCO). The savings would pay for the capital costs. If no savings are made they don't get paid so there is very good incentive and you have transferred the risk. Often documentation and structure are quite standard so could work for quite a lot of different projects. For JV there is more risk so higher cost of funding and generally requires larger projects to justify the tailoring of documentation etc. This type of private funding can help with difficult to do projects – for the right type of project they will consider longer term paybacks. In summary, private finance won't be as cheap as funding from public sector. This is for projects where public sector grants/capital can only fill part of the gap and also to help difficult projects get off the ground. **Questions & Discussion** **RY:** Green infrastructure bonds – city wide level – what might be coming at that scale?	

	AWi: Emerging market but strong appetite from investors as good corporate social responsibility (CSR) story. Sometimes there is difficulty in demonstrating that the project is green (carbon reporting and baseline etc.) Still early days and needs development. **DD:** Offsetting with additionality – emergence of green gas purchase agreements? **AWi:** Yes there is a limited amount of capital requirement but it is hard to get 100% green gas mix. What you often see is the sale of it. **AWi:** Watching brief on heat supply for private sector agreement – need to understand how the heat loads will be put on to the system. If there is a wider network it is tricky for funding so an anchor loan is important. **DD:** Common theme that institutions need to have a better understanding of long-term strategy and vision/master planning.	
5	**The Salix Recycling Fund** *Jennifer Roberts, Programme Manager (Scotland), Salix Finance* *Torran McNeill, Client Support Officer, Salix Finance* Salix helps institutions drive down carbon emissions and save money on fuel bills. We are a not-for-profit government funded company that provides 100% interest free loans for energy efficiency projects. We want to hear from the sector what works best for them and how best we can help. We support Scottish Government strategy (Energy Efficiency Route Map), the Non-Domestic Energy Efficiency (NDEE) framework and the University Carbon Reduction Fund. Salix has worked in partnership with the Scottish Government since 2006. The Scottish Government has invested £26million and £63million worth of projects have been delivered. Recycling funds (50% match funded) for energy efficiency projects. The first funds were set up 12 years ago. At the moment there are 22 projects - payback must be 8 years and no more than £250 per tonne of CO_2e. **Case studies** **University of St Andrews (boiler replacement, CHP, Lighting):** Saving over £6k per year (3.5ktCO_2e) average payback of 4 years. Running for 11 years over 120 individual projects. **University of Strathclyde (labs):** Savings of 360tCO_2e per year. Payback of 5 years.	

	East Renfrewshire (NDEE schools project): Savings of 200tCO_2e per year. Payback 7.5 years. **University of Strathclyde (data centre cooling upgrades):** Savings of 488tCO_2e per year. Payback 5.5 years. **<u>Questions & Discussion</u>** **DC:** What is the breakdown of renewable technology types you are funding? **TM:** Majority solar. **DD:** How much of FHE is signed up to Salix? **JR:** 5 institutions have recycling funds at present. **AA:** Are case studies accessible? **JR:** Hundreds are available on the Salix website. **DB:** How will the two funds interact? **JR:** There is an option to combine them. **RY:** Is there much scope for collaboration with local authorities? **JR:** Yes we would like to encourage this. Salix currently work with 16 local authorities and have worked with almost all Scottish local authorities via the SEELS programme. **DC:** What do public bodies report are the main barriers to taking up these funding opportunities? **JR:** Sometimes no match funding or the payback doesn't work.	
6	**Energy Efficiency and Carbon Reduction Projects - Non Domestic Energy Efficiency (NDEE) Framework** *Andrew Wholley, Mott MacDonald & Austen Bamford, Ameresco* The Non-Domestic Energy Efficiency (NDEE) framework was set up by the Scottish Government in 2016 for the procurement of 'guaranteed saving' energy performance contracts (EPCs) for the Scottish public sector. Mott MacDonald are an engineering advisory company who work with ZWS and The Carbon Trust and operate the NDEE Project Support Unit (PSU). The intent is a whole building approach with multiple projects. There is a mix of proven technologies and the innovation is in the upscaling. £21million capital investment and over 8,500 tCO_2 savings annually from the project. Colleges Energy Efficiency Pathfinder (CEEP) projects were the first through the framework and the Scottish Government put significant finance in to the project to support colleges.	

	The timescales were challenging so they did early due diligence and went out to tender quickly. Ameresco were appointed to deliver the projects at Edinburgh College, Newbattle Abbey College, West Lothian College & Borders College. They were delivered in parallel by working across 12 buildings over the summer. **Improvements included:** Lighting & controls optimisation, Building Management System (BSM) installation, replacing single glazed windows, fuel conversion & boiler replacement. **Added benefits:** Reduced maintenance, massive improvement to teaching environment, assets were improved, upgraded and future proofed. It was a really good learning process. The PSU supported the technical analysis and the projects have exceeded expectations. **Questions & Discussion** **DD:** Common theme - there is a lot of money out there. There is a need for each of the institutions to improve its energy strategy and access every single one of these sources to build upon it.	
7	**EAUC Update** *Jill Burnett, Carbon & Estates Project Officer, EAUC-Scotland* • Green Gown Awards are open for applications until the 5th June. Scottish institutions have historically done very well so we would encourage everyone to enter. • UK Conference 19th-20th June in Manchester • EAUC-Scotland Summer Forum 24th June (virtual meeting with regional hubs in Aberdeen, Dundee, Edinburgh & Glasgow)	
8	**AOCB**	
9	**Next meeting** Please e-mail any suggestions for topics or speakers at our next meeting to jburnett@eauc.org.uk.	
10	**Thanks and close**	

Minutes prepared by Jill Burnett, EAUC-Scotland Carbon & Estates Project Officer, 21/5/19