I am very pleased that CES has this year managed to balance practical delivery of project support to many communities with representing the community perspective in a complex and rapidly changing energy policy environment. We have also had a ‘root and branch’ review of our purpose to finalise a new strategy and our strap line is a heartfelt reflection of our intention to continue to help communities take advantage of their renewable energy resources and build a more localised, democratic and sustainable energy system. This review showed that even though the community energy sector is experiencing a significant ‘slow down’ owing to reduced UK government support, CES’ role in helping interpret policy developments, drive innovative ideas and translate them into practical options for community benefit has never been more important. Our approach to building relationships between community groups, technical developers, energy companies and others is unique and is resulting in genuine, practical innovation that benefits communities and informs how the UK’s energy system can become ‘smarter’ and more localised.

We were delighted to start our part of ‘SMILE’ or ‘Smart Islands Energy Systems’, a major new €14m EU Horizon 2020 funded project with CES as lead UK partner. Working with technical, grid and academic partners across Europe it will investigate how electricity producers, consumers and the grid, should tackle energy storage and other challenges from renewables and electric transport. Through our long-standing work with communities and partners, we have played a key role in helping Orkney to become a global centre for smart, low carbon energy developments. SMILE, along with other projects we are leading or partnering in (Surf ‘n’ Turf, Heat Smart Orkney, Big Hit), show how the energy system can be transformed and engage local people, replace fossil fuels and directly address fuel poverty. A key theme in our new strategy is to transfer the knowledge and expertise from projects such as these, to community groups, to build their capacity to engage in and benefit from a ‘smart’ energy system.

At a more strategic level, we were very pleased to be awarded a contract by Local Energy Scotland to work on the development of Local Energy Plans, which could provide a blueprint for greater local engagement in the energy system.

Finally, as I step down from the role of CES Chair, I should like to thank the CES staff, voluntary directors and partners for their hard work and continuing commitment to CES’ work. It is through the application of this wealth of experience and knowledge that change to a more democratic and sustainable energy system is made possible.

GWEN BARRELL, CHAIR OF CES
SMART ENERGY INNOVATION PROJECT UPDATES

ACCESS ON MULL: Concluded in March 2018, ACCESS developed a replicable grid connection solution for communities in grid constrained areas or those looking to use their own generation to meet local energy demand. The project successfully demonstrated remote switching on of electrical loads in real time to match the generation from the community-owned, Garmony hydro scheme. It also created a financial model for such ‘local balancing’ systems and made steps towards formalising a local energy tariff. The Scottish Government’s 2018 to 2032 Climate Change Plan featured ACCESS on page 73! CES is very grateful to all ACCESS partners and especially Mull and Iona Community Trust who helped us enable 70 households to benefit from this smart energy transition solution.

IN ORKNEY: Our innovative work in Orkney, in partnership with community, business and statutory organisations, has attracted considerable attention and recognition over the last year. We are proud to be part of a thriving and leading-edge set of initiatives, see below, which are making a vital contribution to creating examples for much more sustainable and smarter energy systems.

SURF ‘N’ TURF: With the aim of producing hydrogen from un-used or ‘curtailed’ wind and tidal energy on Eday, this project celebrated its official launch of the installed system with the Scottish Energy Minister, Paul Wheelhouse, with other local partners and the local community. Since then, the EMEC electrolyser was commissioned to supply hydrogen, trials for gas delivery to Kirkwall were made and the fuel cell was connected to the local harbour grid to provide electricity to ferries when at berth. We look forward to tracking the continuing success of hydrogen generation increasing community revenue.

BIG HIT: Starting this year this EU funded project builds on Surf’n’Turf’s success, expanding its impact through building a second electrolyser on Shapinsay and widening hydrogen use. This 2nd electrolyser, the hydrogen refuelling station and Shapinsay school boiler system have been installed, with 5 hydrogen-electric vans delivered to the Orkney Islands Council ready for refuelling once commissioned. The plan is to be fully operational later in 2018.

PITCHES: This recently awarded EU funded project will build further on achievements from Surf ‘n’ Turf and Big Hit, aiming for replication potential for other areas of weak grid, including in Malawi. This work is just starting, including the liaison with Community Energy Malawi and a visit is planned to Malawi for August 2018.

HEAT SMART ORKNEY: Following household surveys in 2017, installation of dimplex quantum heaters and hot water cylinders were completed in 82 properties, totalling 375KW of load. The aggregator platform went live in March, and smart switching controlled these loads in response to when REWDT’s wind turbine needed demand to prevent it being curtailed. This is the first roll out of domestic demand side management in Orkney, with similarities to the ACCESS project. The project will be collecting data and assessing commercial viability for continual operations after 2018/19.

SMILE (SMART ISLANDS ENERGY SYSTEM): SMILE aims to install 45 smart heating systems and 30 smart EV chargers to facilitate increased generation from curtailed community wind energy. The demand from these loads will be aggregated and actively/remotely switched on and off. This will help residents save money and increase the productivity of community-owned wind turbines. Local project partners are preparing for installations, assessing needs of householders and EV owners, and the project is actively recruiting participants.
IN HIGH DENSITY HOUSING

TOWER POWER: This innovative project, concluded in March 2018, aimed to enable residents on prepayment meters in high density housing to aggregate their energy demand, collectively negotiate a better price with an energy supplier and share renewable energy. Although we met significant technical and regulatory barriers, with partners we successfully tested most of the elements required to run a future demonstration, including a prepayment related communications module with an advanced smart meter, and developed a business model and a template community management structure. There remain regulatory barriers and we would need to find an energy supplier willing to provide a reduced group tariff.

Calum M. Macdonald, Chair, Coll Community Development Trust

We are also supporting a further 15 community groups to jointly work on a Combined Community Scheme with the aim of enabling cost savings through economies of scale, as well as capacity-building and sharing of knowledge.

COMMUNITY POWER OUTER HEBRIDES: (CPOH), a collective of installed revenue-generating community wind projects, continues to be supported by CES and we are delighted that Storas Uibhist joined, taking it to six members. This year CPOH enjoyed an informative visit to the Stornoway Power Station, met with Enercon and Our Power to discuss further developments, input on opportunities for Electric Vehicles and received their first SCADA report comparing generation, downtime and performance between all the sites.

OHLEH: This circular energy economies project in Lewis links the Council-owned Creed Integrated Waste Management Facility (IWMBF) and the Barvas Hatchery, using curtailed energy from an on-site wind turbine and heat and electricity from an Anaerobic Digester (which takes in fish, food and garden waste), to heat local buildings and to generate oxygen and hydrogen for the Hatchery and hydrogen for a waste collection lorry. With ongoing construction work, the full system should be up and running by the end of 2018.

ISLE OF CANNA: With the help of CES, Isle of Canna residents secured funding to construct a community-owned renewable energy system to transform access to energy on the island. Using wind, solar and battery storage to replace their three diesel generators, it will drastically reduce fuel usage, carbon footprint and costs. CES is working with Canna Renewable Energy Ltd to manage the development and construction, started in April 2018 to run for 7 months, building on our experience of off-grid community schemes on Knoydart and the Isle of Muck.

“We’re delighted that construction will start soon, which has been a long-standing local ambition. As well as reducing the generator noise and pollution the new scheme will give us the capacity to build more houses, increasing the number of people who make their home on this beautiful island.”

CREEL director Geraldine MacKinnon

LOCAL ENERGY PLANNING – COBEN FUND PROJECT WORK: We were contracted by the Scottish Government...
to facilitate community engagement for the COBEN local energy planning process in Bara & Vatersay and in Oban, in partnership with AliEnergy. Following the provision of information on future smart energy systems, our work enabled community members to highlight energy priorities and suggest locally relevant options, give feedback on the draft plans and actions proposed, whilst finding out how to get involved in future delivery of the plan.

THE WORK OF CES TRADING

KNOYDART: CES Trading has supported Knoydart Renewables in operating, maintaining and developing their off-grid electricity network, powered by an ageing hydro scheme, in a challenging year needing repairs following a landslip, a pipeline breach and several transformer failures. We also arranged system engineering reviews and worked with StorTera and a local engineering firm to study the potential for an innovative energy storage system, to use surplus hydro energy to charge up liquid electrolyte in a battery to meet peak demand and keep the lights on if the hydro is down. We’ve explored shipping the charged electrolyte in an electric vessel to local fishfarms and off-grid homes, replacing diesel.

FISHERMEN THREE WINDFARM: In its first year of operation our joint venture with Berwickshire Housing Association (BHA), at Hoprigshiels near Cockburnspath, has generated over 24 gigawatt-hours of electricity, equivalent to (according to Ofgem figures) powering 7,758 homes – or all the Berwickshire Housing Association homes, and a further 6,000 households in the area. Together we’re also delighted to have made our first community benefit payments, totalling £37,500, to two local organisations – Oldhamstocks Community Association, and Cockburnspath and Cove Community Council. It’s hoped that some of the funds distributed this year will go towards a new village hall being planned in Oldhamstocks.

Our project was awarded the Margaret Blackwood Award for Excellence in Housing Innovation at the 2017 Chartered Institute for Housing Awards and shortlisted for the 2017 Scottish Green Energy Awards.

“This has been a very good first year for us as partners and fascinating learning about the running of the wind farm. We are very upbeat about the future and the income we will be able to put back into the communities.”

BHA’s chief executive Helen Forsyth

INTERNATIONAL – OUR WORK WITH COMMUNITY ENERGY MALAWI (CEM): We started a three-year project in Sitolo in Central Malawi with CEM, funded by the Scottish Government’s Climate Justice Innovation Fund. Aiming to strengthen the community’s capacity to run their soon-to-be installed UNDP funded solar-powered mini-grid, so far 400 community members have been briefed, four village grid committees set up (with 17 women and 23 men) and an exchange visit to a similar mini-grid in Zambia helped the committee learn from their experience. 6 women and 14 men have been recruited as mini-grid technicians and 16 young entrepreneurs selected (8 male, 8 female) and their training started. Over the next two years, households will be connected to the grid, a tariff collection system will be set up and local businesses will also be connected to the grid.

CES and CEM also contributed to the Arkleton Seminar on Rural Resilience and Insecurity (in Gambia, 2017) by sharing learning from running the Community Energy Development Programme (CEDP) in Malawi.
‘EMPOWERING COMMUNITIES, IMPROVING LIVES’

Our vision is of strong, well informed and capable communities across Scotland, able to take advantage of their renewable energy resources and address their energy issues in a way that builds a more localised, democratic and sustainable energy system. Our mission is to strengthen and empower local communities by helping them to own, control and benefit from their local renewable energy resources, control and reduce their energy costs, regenerate their communities and play their part in the low carbon transition. We aim to work in partnership with community groups and any others who share these aims.

COMMUNITY CAPACITY BUILDING FOR A SMART ENERGY FUTURE

As a significant element of our new strategy, CES is developing a programme to provide information, networking and advice for community organisations interested in learning about the coming smart energy system. This will help groups gear up to take advantage of opportunities from smart energy, for local community benefit and to reduce fuel poverty. We want to ensure that communities and consumers do not lose out in the new smarter energy system and are keen to partner with funders, local authorities and communities to help achieve this. Contact Gillian.wilson@communityenergyscotland.org.uk

POLICY INPUT AND INFLUENCE

We have continued detailed policy engagement work, including a contract with Highlands and Islands Enterprise (to March 2018) to provide a quarterly community energy ‘policy digest’. Continuing input to the Electricity Network’s Association project on redesigning the electricity network was (and remains) particularly important if we are to ensure that community opportunities are ‘hard wired’ into the new system.

We also fed into the Scottish Government’s Energy Strategy, Fuel Poverty Strategy and proposals for a Publicly Owned Energy Company, emphasising the importance of the role of organised community energy groups to help deliver these initiatives.

We also wrote to the UK Government Energy Minister to encourage the government to undertake the proposed review of the Feed in Tariff without further delay. We were pleased to be invited to a OFGEM / BEIS discussion focused on how the energy system could develop to support local trading in ‘flexibility’ services which we believe will offer new opportunities for community groups to generate revenue.

1,480 KW NEW GENERATION

77 GROUPS SUPPORTED

1,261 TONNES SAVED PER YEAR

TRAINING SESSION IN SITOTO
MEET THE TEAM

OUR MEMBERS

CES has 397 community members, out of our 436 members all together.

OUR BOARD AND STAFF

This year, Gwen Barrell stood down as Chair at the AGM and Allan Hobbett has now taken up the role. We are very grateful for the considerable effort and energy Gwen put into leading CES over the last few challenging years. Also, we have been very sorry to say goodbye to several very long serving staff including Marion O’Hara who was a major driving force for CES from the start (and before!) who retired – she has been missed and we thank her for all that she contributed to CES! We also said a fond farewell to Georgy Davies who has been with CES for over 11 years and Felicity Sargent, both of whom have moved to Our Power and we wish them well and thank them all for all their hard work. This year we welcomed Gillian Wilson as Head of Development based in the Edinburgh office and Peter Long as Development Officer in Orkney, while Brid McKibben returned to CES for a short period to help with Administration.

FINANCES - 1ST APRIL 2017 TO 31ST MARCH 2018

INCOME

£691,015

EXPENDITURE

£737,800

Our finances illustrate the challenges CES faces to maintain its services to community groups when dependent on project grant funds with no core funding. Project grants rarely cover full cost of project delivery. Our CES Trading, membership fees and donations cover some core costs but are often used to subsidise project delivery. Wind farm income will soon bring some resources to CES for our charitable work providing information, advice and capacity building support to community groups to engage in the smart energy system.

OUR FUNDERS

Scottish Government CARES programme and Climate Justice Innovation Fund, the EU’s LEADER and Horizon 2020 Programmes, Comhairle nan Eilean Siar, Orkney Islands Council, UK Government Innovate UK programme, Western Isles Development Trust, Coimhearsnachd Bharraidh agus Bhatarsaidh, Horshader Community Development, Storas Uibhist, Point and Sandwick Development Trust, Tolsta Community Development Ltd, Galson Energy Ltd, SSE, Scottish Power, City of Edinburgh Council and ITM Power.
CES is a Registered Scottish Charity, No: SC039673, Company No: SC333698

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