Scottish & Southern Electricity Networks

Solent Achieving Value from Efficiency

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TM4 (Community Energy Coaching Trial)
SSET206 / LCNF Tier 2 SDRC 8.8: Supplementary Appendix

Post-Trial Review
'One Year On'

January 2019

University of Southampton | DNV·GL | Neighbourhood Economics | Future Solent

Scottish and Southern Electricity Networks (SSEN) is the new trading name of Scottish and Southern Energy Power Distribution (SSEPD), the parent company of Southern Electricity Power Distribution (SEPD), Scottish Hydro Electricity Power Distribution (SHEPD) and Scottish Hydro Electricity Transmission. SEPD remains the contracted delivery body for this LCNF Project.

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A full Glossary of Terms and list of acronyms used in CEC Trial reporting is included in the main Report of Findings: http://www.neighbourhood-economics.com/the-save-project/

1 THE COMMUNITY ENERGY COACHING (CEC) TRIAL – ONE YEAR ON

1.1 CONTEXT

1.1.1 The Post Trial 'One Year On' Review

This Report is a Supplementary Appendix to the Final Report for the SAVE Community Energy Coaching (CEC) Trial (SDRC 8.8, June 2018). It sets out the results of the post-trial Review undertaken by Neighbourhood Economics in November 2018, one year on from the end of the 2 year active research phase of the trial.

1.1.2 The Aim of the Review

The core hypothesis for the CEC trial was that:

> *"Measurable changes in localised consumption behaviours generally – and in terms of peak energy demand reduction in particular – are more likely to be achieved with key local and national stakeholders working intensively together to resource and empower defined geographical communities in actively embracing a compelling, locally relevant, collaborative sustainability-related theme. Furthermore, resultant positive behaviour change is more likely to be reinforced and sustained in the long-term by the momentum of pooled stakeholder effort".*

The aim of the post-trial Review was to test implicit assumptions in the core hypothesis regarding the sustainability of behaviour change impacts attributable to the collaborative coaching approach. As such, the Review explored the legacy of the active research phase of the project as it could be observed a year on.

1.1.3 Key Success Criteria

With the formal closure of the trial at the end of 2017, we were hopeful of being able to draw conclusions about the relative levels of sustained commitment to the principles of peak demand reduction and multi-agency collaboration. As such, we identified 3 key success criteria. We postulated that:

a) There would be a continuing commitment to behaviour change amongst at least 50% of local customers who signed up to the BSO events delivered as part of the active engagement phase of the research in November 2017;

b) The energy efficiency theme coupled with an understanding of the peak demand issue would be embedded as part of the agenda of local community-based organisations with evidence of delivery on Legacy Plan commitments;

c) Utilities and other stakeholder agencies part of the Stakeholder Group for the CEC trial would be continuing to collaborate in developing operational relationships and in designing and delivering joint community engagement initiatives as part of business as usual (BAU) activities.

Also, given the passage of time since the end of the formal trial research, we were keen to assess the relative levels of 'decay' in commitment to change amongst different types of participant (customers, local community groups, stakeholder partners) and potentially to draw conclusions about how these levels might in retrospect have been improved in a comparable operational situation. In terms of behaviour change amongst customers in particular, we assumed that a year on, 50% of original trial participants or less would still be able to express a sustained commitment to active peak demand reduction.

1.2 SUMMARY OF SDRC 8.8 RESEARCH FINDINGS

1.2.1 The Original CEC Trial

The CEC Trial was one of four trials conducted as part of the SAVE behaviour change research programme as funded through the Low Carbon Network Fund. The trial aimed to test within 2 differentiated communities in Kings Worthy (Winchester) and Shirley Warren (Southampton) whether a sustainable reduction in peak electricity demand could be achieved working in collaboration with local communities. If successful, this would allow SSEN and any other Distribution Network Operator (DNO) to reliably manage demand to defer / avoid reinforcement on constrained parts of a network.

The trial's community-centric approach also offered the opportunity to address energy consumption within the context of the wider community well-being and service delivery agendas important to other partner agencies and the communities themselves.

The research was undertaken in partnership with other utility companies and stakeholders, including SGN (Southern Gas), Southern Water, University of Southampton, Eastleigh, Winchester and Southampton Councils, VIVID (formerly First Wessex), Winchester Action on Climate Change and the Environment Centre in Southampton.

The 2 year active engagement phase of the CEC trial (2016 and 2017) is now complete and the final report of findings was submitted to Ofgem in July 2018. The full report and appendices can be downloaded at http://www.neighbourhood-economics.com/the-save-project/

The 3 other trials under SAVE are focused upon sample groups of households across the whole of the Solent area. These trials continue to run through 2018 and will report next year.

1.2.2 Summary of the original Research Learning

Full exposition of the 18 Learning Outcomes from the Trial research is set out in Section 4.4 of the Final Report, June 2018. Key findings can be summarised in the following learning points:

- 'BIG Switch Off' events achieved over 10% reduction in peak demand on specific substations
- Being part of a caring, connected community was the key driver for behaviour change
- Shifting peak demand was seen as a compelling new energy literacy message
- Making emotional connections with the community was crucial in securing active participation

- Messenger identity was key … customers responded much more positively to messages from the locally branded intermediary groups – Shirley Warren Working Together (SWWT) and Connecting Kings Worthy (CKW)
- Talking about saving time as well as about saving energy broke down the barriers to changing cooking routines
- The multi-agency coaching approach was seen as transformational in delivering stackable benefits for all involved including other utilities and stakeholders.

2 ANALYSIS OF CEC TRIAL LEGACY

2.1 THE REVIEW PROCESS

2.1.1 What we did / What we found / What we concluded

Reflecting the key Success Criteria (1.1.4 above) this analysis sets out briefly what we did as part of the post-trial review process in November 2018. It reports on what we found in following up with the 3 separate specific interest groups - customers, local community groups and stakeholder partners - and accordingly what we concluded in terms of the sustainability of behaviour change as observed at the close of the trial at the end of 2017.

2.2 THE CUSTOMER LEVEL

2.2.1 What we did

We knew from customer interviews and substation monitoring as part of the original BSO research interventions that on selected feeders in both trial communities, 25% customer sign up could deliver measurable peak demand reduction in excess of 10% for a defined constraint period (See Section 4.1, Final Report, June 2018).

One year on, we re-interviewed a random selection of households who had formally signed up to the original BSO events in November 2017. In all we conducted 25 doorstep interviews in each trial area to assess performance against the notional success criterion of at least 50% of local customers expressing a continuing commitment to behaviour change

2.2.2 What we found

Crucially:

- A sustained commitment to active peak demand reduction as expressed by 80% and 72% of customers interviewed in Shirley Warren and Kings Worthy respectively, an average of over 75% across the 2 areas combined (Question 3, Appendix 1);
- Customers in both areas citing examples of continued peak reduction activities which reflect key ‘energy literacy’ campaign messages notably changing cooking / eating routines and shifting usage of key appliances (Question 4, Appendix 1);
- 68% and 60% of customers in Shirley Warren and Kings Worthy respectively stating that they would continue to encourage others to reduce peak demand (Question 6, Appendix 1).

The detailed interview questionnaire analysis is set out in Appendix 1.

2.2.3 What we concluded

From our follow up household interviews, we concluded as part of the Review that:

- A year on, there was an encouraging level of continuing commitment to reduced peak consumption as expressed by over 75% of customers across the 2 areas as compared to the assumed 50% or less success criterion level . This can be expressed in terms of the rate of decay of qualitative behaviour change impacts as a 'half life' of 2 years;
- There was no evidence of any real difference in levels of continuing commitment between the trial areas.

2.3 THE COMMUNITY LEVEL

2.3.1 What we did

We knew that there was an 'in principle' commitment to embedding energy efficiency as part of wider community agendas expressed by SWWT and CKW in Legacy Plans agreed at the end of the original trial research period. These plans are the embodiment of the 'trusted local intermediary' status of SWWT and CKW in effectively conveying behaviour change messages beyond the active trial. (See Section 4.3.4, Final Report, June 2018).

As part of our 'one year on' review, we met individually and collectively with local community representatives who had been part of the original co-design teams through SWWT and CKW to explore progress with delivery of these legacy commitments. Detailed updates for each trial area are set out in Appendix 2.

2.3.2 What we found

- Generally there is a good record of delivery in both areas although this has been more demonstrably achieved in Shirley Warren. Of the 10 legacy commitments taken on in each community, 7 have been or are being delivered with 3 in process in Shirley Warren while in Kings Worthy, 5 have been or are being delivered with 4 in process and one as yet uncertain;
- Of the 2 communities, energy literacy messages around energy efficiency and peak demand reduction are observably more fundamentally embedded in Shirley Warren through the work of SWWT. We can readily put this down to the relative paucity of other 'competing' groups and the regular community café and associated activities set up as part of the trial and still continuing to provide a focal point for collective action to improve community resilience. Through SWWT conversations around energy have broadened to take in wider sustainability and environmental issues with residents now feeling empowered to take action, both on an individual basis and as a community, as a result of their involvement with SAVE. Some modest support continues to be provided by the Environment Centre (tEC) as the original local host organisation;
- In Kings Worthy, CKW remains one of a large number of groups requiring volunteer support to sustain their activities with potential support more dissipated as a result. While individual groups have taken up the CKW mantle in their own way, notably St Mary's Eco Church, the Worthy's Festival, the Primary School and Parish Council, it has been more difficult for the

community to routinely filter action through CKW. On one hand the brand is still seen positively within the community as providing an overarching and neutral focus for both energy and the wider sustainability/environmental issues that are now being discussed; on the other, levels of community resilience in Kings Worthy are intrinsically high with no particular urgency to coalesce under the CKW banner. Some modest support continues to be provided by Winchester Action on Climate Change (WinACC) as the original local Host organisation;

- In both communities the 'bottom up' nature of the coaching approach was confirmed as critical to both their original enthusiasm to be involved and their continued engagement with the key energy literacy issues beyond the end of the active research phase. Residents feel that they have been listened to, valued, supported and trusted as part of the CEC trial, particularly so in Shirley Warren. This has been the catalyst for positive social change, allowing people to come together and believe in themselves in a way that other initiatives/projects have not. In both communities, being seen as 'part of the solution and not just part of the problem' was key to the project being able to add value to community wellbeing as well as them being able to add value, support and take ownership of the trial through the co-design process. These findings echo learning captured through the active research phase of the trial (See Section 4.2.6, Final Report, June 2018).

2.3.3 What we concluded

From our individual and collective meetings with community representatives, we concluded as part of the Review that:

- SWWT was and remains a fundamental factor in local resurgence of community activity in Shirley Warren over the past 2 to 3 years. Led by key individuals from the local Action Church, it has provided an inclusive focus for self-development of the community. As a formally constituted group, it now continues to grow feeding on the need for increased community resilience and the urgency for social action. It is well-placed to generate significant additional resources to sustain itself and also to support local investment projects;
- In Kings Worthy, the plethora of local groups made initial engagement relatively easy, but the ongoing need to service them all is leading to an increased pressure on a limited number of local volunteers who, although interested and willing, are finding it difficult to maintain the level of commitment required to sustain CKW as a separate entity. CKW remains a known and trusted overarching and neutral local brand which, through social media networks is continuing to provide a virtual space for the promotion of community wide initiatives and information. In order for CKW to play a more central developmental role it would benefit from an additional modest input of funding/support, over and above that which WinACC can currently continue to provide;
- Of the 2 trial areas, the SAVE legacy through SWWT has been more fundamentally significant from an overall community wellbeing viewpoint. The pre-existing levels of community activity and associated resilience – very low in the case of Shirley Warren and very high in the case of Kings Worthy – have played a significant part in determining the degree to which respective legacy commitments are now embedded locally. The implication is that if SSEN and/or other stakeholder partners were to apply coaching principles in similar local engagement elsewhere, working in the least resilient / most vulnerable communities is likely to yield both the more enduring behaviour change and the more significant uplift in social wellbeing;

- A modest ongoing support package in each trial community bridging the end of the active trial period would potentially have seen greater reach/traction achieved with the opportunity to embed the work of SWWT/CKW more deeply. In particular it would have helped to broaden the reach of activity across the community in Shirley Warren and to recruit new volunteers to maintain and reinforce the role of CKW.

2.4 THE STAKEHOLDER / PARTNER LEVEL

2.4.1 What we did

We knew from legacy scoping work as part of the original trial research that:

- utility partners and other stakeholders have been impressed with the nature and success of the CEC approach and had already begun to apply some of the lessons learned within their own organisations and to their work with other partners: for example, Eastleigh Borough Council changing the focus of its promotional messaging around reuse and recycling; SSEN and Southern Water looking at future collaboration with a view to shared resourcing around household level behaviour change, the value of Priority Services Register (PSR) sign ups and other social impacts for vulnerable customers; increased networking and formal recruitment of stakeholder representatives to the boards of tEC and WinACC enhancing future partnership working;
- the utilities in particular recognise the value of delivering a range of stackable benefits potentially offering both value for money and an improved customer journey, especially for vulnerable customers. In addition, the Local Authorities and host organisations saw the model of private sector led engagement as a potential breakthrough in future joint working giving the resource challenges that they, along with other partners, currently face. These points echo learning captured through the active research phase of the trial (See original feedback from Stakeholders captured in Section 4.2.6, Final Report, June 2018).

Looking beyond the energy sector to wider community wellbeing / resilience policy, we had also as part of our original trial reporting explored a prototype Connected Communities Programme with a view to scaling up the CEC trial research to a viable BAU roll-out programme embracing a broader civic responsibility agenda beyond the energy sector (See Section 4.4.3, Final Report, June 2018).

Against this background, we convened 'one year on' a special Review Session with the Stakeholder Group to revisit the legacy from the trial. Alan Whitehead (MP for Southampton, Test and Shadow Minister for Energy and Climate Change) was also in attendance.

2.4.2 What we found

- There is consensus amongst the project Stakeholders that the set of Community Engagement Guidelines as put together to build upon learning through the CEC trial, should be shared within their own organisations to promote and underpin future good practice. These guidelines are set out in Appendix 3;
- SSEN are actively applying the learning from the CEC trial and the wider SAVE project in building upon their current Constraint Managed Zone (CMZ) initiative. This is a BAU initiative to commercially secure demand management/power injection services to

defer/avoid network reinforcement on defined parts of a network. Building on this, there is an opportunity to explore the potential for a Social CMZ initiative incorporating contributions from other stakeholders alongside commercial operators and looking at delivery of social benefits (reflecting utility companies' social obligations) alongside demand management. The initiative is being formally developed prior to being opened up through a public tender process. The proposed SCMZ model is described in Appendix 4;

- The Stakeholders all continue to endorse the coaching approach taken by the CEC trial and value the wider social benefits, as delivered alongside peak demand reduction, particularly those for vulnerable customers. There is continued support in principle for further collaboration to generate 'stackable' social impacts on a more cost-effective basis. Given the challenge of delivering a scaled up version of the CEC model cost effectively, this support is more likely to be actualised through the evolving SCMZ initiative led by SSEN in the near future rather than through any wider roll-out programme potentially linked to the wider community wellbeing / resilience agenda;
- Quantification of the value of social impacts remains a particular issue in relation to the measurement of cost effectiveness in any future collaborative work to generate stackable benefits (See Section 3.4.4, Final Report, June 2018);
- It was agreed that there are policy lessons to be learned from the CEC trial research and the wider SAVE project looking at its applicability to both energy / carbon policy and wider community wellbeing. The key principles underpinning the CEC trial could usefully be applied in a public policy context, notably (i) the value of a trusted local intermediary (ii) recognising the primacy of the community's role in driving behaviour change (iii) seeking to combine the service agencies' 'top down' interests with a community's 'bottom up interests to empower local change and (iv) the efficiencies of multi-agency / cross utility working.

2.4.3 What we concluded

From our follow up discussions with stakeholder partners, we concluded as part of the Review that:

- There is general consensus that the community coaching approach remains ground-breakingly good within the experience of the stakeholder partners involved. Project learning continues to be applied, both formally and informally, building upon the key principles of the CEC trial. The fundamental principle of recognising the primacy of the community's role in driving behaviour change remains the most difficult to subsume within routine operational practice;
- The Community Engagement Guidelines put together on behalf of the Stakeholder Group offer an agreed benchmark for future joint working by the stakeholder agencies involved;
- The development of the Social Constraint Managed Zone (SCMZ) initiative through SSEN provides a natural opportunity for BAU application of many of the lessons learned from the CEC trial and the wider SAVE project. Effective business case development will require a clear framework for evaluating the benefit of targeted / attributable social impacts;
- Alongside the SCMZ initiative which builds directly on the needs of the energy / utilities sector, there remains an opportunity for multi-agency collaboration addressing wider community wellbeing / resilience policy. Whereas leadership of the SCMZ opportunity lies clearly with the SSEN, agency capacity to pursue a wider civic responsibility agenda is less clear.

3 RECOMMENDATIONS

3.1 RECOMMENDATION 1: Community Engagement Guidelines

Given the level of positive support for the Community Engagement Guidelines put together on behalf of the Stakeholder Group and the associated evidence base built up through the research trial, it is recommended that SSEN and/or other partners within the energy industry should seek to establish an industry-wide protocol for future work within local communities based upon these Guidelines;

3.2 RECOMMENDATION 2: Social Constraint Managed Zones

The development of SCMZs, building upon SSEN's current Constraint Managed Zone initiative, offers the best opportunity for capturing and applying the learning from the CEC trial and the wider SAVE project in the immediate future. Building upon current CMZ application, it is recommended that SSEN should continue to explore the BAU case for an SCMZ initiative incorporating contributions from other stakeholders alongside commercial operators and looking at delivery of social benefits alongside demand management;

3.3 RECOMMENDATION 3: Evaluation of Attributable Social Impacts

Reflecting the experience of the CEC trial in generating social impacts (alongside core peak demand reduction), any similar engagement work targeting attributable social benefits will require a clearer framework for quantification and evaluation. This will potentially apply to both new initiatives such as SCMZs and also to more routine delivery against social obligations. As such it is recommended that SSEN and/or other partners should seek to establish the necessary consensus framework;

3.4 RECOMMENDATION 4: Wider Application of Research Learning

Although unclear at this stage who might lead it, there remains an opportunity for multi-agency collaboration addressing wider community wellbeing / resilience policy beyond the interests of the energy sector. Complementing the energy / utilities sector focus of the SCMZ initiative, this could facilitate further exploration of the fundamental principle underpinning the CEC trial approach, that is, recognising the primacy of the community's role in driving transformational behaviour change across a broader civic responsibility agenda. It is recommended that SSEN and/or other public sector partners should explore further options for resourcing follow-on work to assess the viability for BAU roll-out of such a programme.

BSO PARTICIPANT FOLLOW UP SURVEY

Doorstep Interview Questionnaire Analysis, November 2018

		Shirley Warren		Kings Worthy	
		% yes*	comment	% yes*	comment
1.	Do you remember joining in the event, 6-7 pm on 19 November 2017?	92		88	
2.	If so, what particular things did you do to reduce energy usage?		14 comments: • Switch off lights etc x3 • Not use appliances 6-7pm x7 • As per Factsheet advice x2 • Went out for evening x2		14 comments: • Switch off lights etc x5 • Not use appliances 6-7pm x2 • As per Factsheet advice x4 • Went out for evening x3
3.	Have you continued to try to reduce electricity consumption during the peak period – 4-8pm?	80		72	
4.	If so how?		12 comments: • Generally economical x3 • Changed eating times x3 • Use slow cooker • Not use appliances 4-8pm x2 • New LED bulbs • Have cut bills by 50% • Smart meter installed		19 comments: • Generally economical x5 • Changed eating times x3 • Batch cooking • Not use appliances 4-8pm x5 • New LED bulbs x3 • New boiler installed • Smart meter installed
5.	(a) SWWT has organised another BSO event on 9 November. Will you be joining in? (b) If CKW organised another BSO event, would you join in?	76		80	
6.	Would you encourage others to reduce peak hour electricity consumption?	68		60	
7.	If so why?		5 comments: • Because of substation peak issue x4 • Environmentally sound		12 comments: • Because of substation peak issue x5 • Environmentally sound x4 • Save money • Community responsibility x2

* per 25 interview sample

APPENDIX 2 – LEGACY PLAN UPDATES

ORIGINAL LEGACY PLAN - CONNECTING KINGS WORTHY	UPDATE: ONE YEAR ON	
Looking a year ahead, the CKW Development Group want to build on the neutrality of the CKW brand and see it used to underpin the 'specialness' of Kings Worthy as an active and 'connected' community. Specifically they want to:		
• Actively use the CKW brand to continue to promote both energy saving and wider environmental messages, including those started through SAVE;	CKW Facebook page actively being used to promote both energy / wider environmental / sustainability and community based issues	
• See the Group continue to meet on a quarterly basis to provide a focus and drive to ensure the brand continues to be used/developed;	Current group members have found it difficult to find a gap within the busy calendar of other regular group activity to suit all needs so attendance at meetings has been very low	
• Use the CKW brand at upcoming Church and School fairs to promote specific community wide energy/environmental messages linked to the development of the 'Eco-Church' and school curriculum in the first instance;	Continued promotion through Church Rep and coach's legacy activity	
• Build on St Mary's Church's aim to become an 'eco' church and make the wider community aware of the background and potential impact along with opportunities for reinforcing energy and environmental messages/action;	Church Rep an active supporter of CKW and keen to see it continue – also now on the Parish Council so has other opportunities to encourage and broaden the reach	
• Maintain use of the CKW website and FB page to promote associated local activity;	Static webpage with an actively updated Facebook presence seen as the way forward.	
• Building on a local visioning exercise, to create exemplar community buildings where the community can see for themselves the difference energy efficiency measures can make through for example. Solar PV and a public display unit;	The Parish Council have agreed to install Solar PV on Tubbs Hall and are keen to demonstrate energy savings to the wider community	
• Continue to look at the opportunity to develop a 'Sustainable KW' strategy which all groups could independently adopt as part of their BAU practice;	This remains an aspiration but lacks the 'person' resource to promote and carry through	
• Work with the SSEN Customer Relations Team to update the parish resilience plan;	Parish Council happy to engage but ball with SSEN CRT at present	
• See the development of a SAVE app as a legacy of the project which would have a simple slide calculator to show impact in money saved of energy efficient actions undertaken for example slow cookers, shorter showers etc. This would require ongoing, external support;	This remains too big an aspiration to achieve without additional ongoing external support.	
• Continue to receive support from WinACC for on the ground help to enable the group to deliver on these aspirations.	Ad hoc low key support available based upon WinACC's limited resources (former coach lives locally)	

ORIGINAL LEGACY PLAN - SHIRLEY WARREN WORKING TOGETHER	UPDATE: ONE YEAR ON	
Looking a year ahead, the SWWT Development Group want to see SWWT actively continuing to promote energy saving messages, including those started through SAVE, alongside activities to promote wider social benefit. In particular:		
• They want to see if they can undertake a BSO in November 2018 to build on 2017's successful event;	BSO event 2018 successfully took place on Friday 9 November 2018**	
• They want to continue to promote the 'can it wait 'til after 8' message and other energy saving messages to encourage people to use less at peak times but through regular 'touch point' activities rather than set piece events;	These messages continue to be promoted through the Communnity café and other regular 'touch point' activites and with a recent newsletter delivered to all households	
• They would like to see a slow cooking club where people could learn how to use slow cookers and benefit from both the time, cost and energy savings to be made but would need some additional resource/staff/volunteer time to enable it to happen. If there was an opportunity to tie in with a 'healthy eating' type project to access additional help/support that would make it more achievable;	This remains an aspiration but is a lower priority given the external resource required. Slow cookers continue to be used at lunch club and other community events, such as the BSO, so continue to be promoted informally through these activites.	
• They intend to continue to undertake regular clean ups to reach further into the community helping to restore pride in SW and the way it looks;	Clean ups continue to take place on a 6 weekly basis with the last one on the 17 November 2018	
• They would like to see the new Community Café built at the front of the Action Centre and in operation – with an 'eco' focus (or similar) to actively embrace energy issues by using energy efficient appliances, looking at environmentally friendly use of disposable (compostable) cups and plates rather than using the dishwasher, possibly having solar panels to generate its own electricity, energy saving messages and information being available to users and so on;	Background work continues to get local councillor and pre-planning support for a modular café at the front of the centre but a % of match funding is needed prior to submission of a grant application for capital funds and this has yet to be raised.	
• They would like continued access to the materials designed for the project, for example, the fridge magnets, information sheets and so on;	A stack of matarials were ordered before the end of the project to ensure continued access and were in evidence at the BSO	
• They would like to invite Alan Whitehead (MP for Southampton) to talk to them about wider energy policy issues that they are interested in exploring as a result of the project, raising mutual awareness of the impact of energy and environmental policies upon local residents. They will look for a suitable opportunity to do this;	NEL invited Alan Whitehead to attend a final Stakeholder review session hosted, by agreement, at the SW Action centre by the SWWT team providing an opportunity for a sharing of learning from the trial and for a wider policy discussion.	
• They would like to try and integrate energy into other community activities and make it something that they do across the board as a matter of course – embedding the learning locally.	This occurs naturally through the community café and other regular SWWT and church actvities	
• Making the most of the links they now have with tEC, they would like to access energy efficiency support/ tie in with other available projects and with other organisations for broader support as needed;	Money Saving event organised by tEC to support BSO on 9 November 2018. Ongoing individual household advice continues to be available to SW residents as well as general support for SWWT activites	
• They are happy to engage with SSEN Customer Relations team staff to look at community resilience planning.	SWWT happy to engage – ball with SSEN CRT at present.	

** high level analysis of the impact of the repeat BSO event as measured at substation feeders is attached at Appendix 5

APPENDIX 3 – COMMUNITY ENGAGEMENT GUIDELINES

COMMUNITY ENGAGEMENT GUIDELINES

An opportunity for stakeholder endorsement of good practice lessons from the SAVE Community Energy Coaching Trial

Given the very positive feedback from residents and stakeholders alike to the coaching approach, SSEN and its partners in the SAVE Project Community Energy Coaching (CEC) Trial are pleased to endorse a set of good practice guidelines for successful community engagement.

Key learning from the trial has been distilled down to 5 headline guidelines to underpin efforts to achieve deeper and more sustainable behaviour change through community engagement:

- Understand the local agenda before seeking to introduce your own – 'top down' information or community campaigns typically start with the agency-led issue that needs to be addressed and can take relatively little account of (i) the complementary needs or interests of the recipient community (ii) the context in which communication will be received and (iii) the corresponding willingness or ability of residents to engage or act. By starting from the 'bottom up' and understanding the needs and aspirations of the target community, 'top down' campaign messages can be tailored to suit, with willing community partners sharing ownership of the issue. 'Earning the right' is key;
- See the community as part of the solution not part of the problem – often the people with the better ideas for addressing a problem will be those closest to it. Using a co-design approach can harness the expertise of 'in house' industry experts along with the wider knowledge and experience of local stakeholders and residents. Blending different perspectives into locally tailored solutions will provide more traction and greater local buy-in than something perceived as 'imposed' or 'parachuted in'. It is more likely that customers will respond badly or not at all, if they feel 'done to';
- The need for change does not lie only within communities – service organisations and public agencies can subject communities to an ongoing cycle of change requests: 'eat more of this', 'less of that', 'use less of this' and 'save more of that'. The expectation is that the need for change lies within each individual, household, community but rarely within the organisations and agencies themselves. If we really want to create new social norms we need to interact positively with those we seek to change and be prepared to change ourselves and our traditional ways of working in the process, taking time to appreciate local circumstances and build mutual understanding;
- No one size fits all - communities are multi-faceted and complex. From a local perspective a single issue, 'silo' tick box approach to service delivery and problem solving is likely to be perceived as a frustrating waste of time. For an effective appreciation of the core needs within a community, engagement needs to be sustained and relatively non-prescriptive with an opportunity to involve a range of service providers who, acting together, can make a real difference against a commonly agreed agenda;
- Ensure wherever possible that the importance of consistent relationship building is not always superseded by urgent operational demands – a bottom up, co-design approach takes time and commitment to deliver results and consistent success is based upon the quality of the relationships that can be developed and maintained. Trust in service agencies is slow to be established at the community level but quick to evaporate when commitments made routinely give way to other urgent operational demands.

These good practice guidelines will typically apply in all operational situations involving groups of customers and are likely to be of particular relevance to utility companies and their partners in seeking to deliver core social obligations in a more meaningful and sustainable way. The CEC trial has demonstrated that in adopting a more collaborative, multi-agency style, the positive outcomes of community and customer engagement can be both more effective and more durable.

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NEIGHBOURHOOD ECONOMICS

APPENDIX 4 – SOCIAL CONSTRAINT MANAGEMENT ZONE (SCMZ) MODEL

SSEN's SCMZ model is designed to take learning from the SAVE project to improve and open the DNO's flexibility procurement to locally based and socially oriented organisations. This will allow for a fair and visible procurement process for such organisations to compete for flexibility alongside larger flexibility providers who have typically dominated the market.

Prior to the innovation of SCMZs SSEN procured its flexibility through a service called Constraint Managed Zones (CMZs). CMZ's have typically been identified in areas of the network whereby network capacity triggers have signalled load-growth on a substation that could take it beyond capacity in the near future. This would traditionally be managed through network reinforcement. A CMZ looks to allocate a provision of the funds that would be used on reinforcement (based on the net present value of postponing reinforcement for the duration of a CMZ term- typically 4-6 years) to provide a price ceiling in which network service providers (that is, battery providers, aggregators etc) can competitively tender to provide their solution as an alternative means of managing peak demand.

As the SAVE project trials have progressed SSEN has (i) been able to evidence that energy efficiency and domestic DSR can actively impact the network (particularly the project's LED trials which have attributed a 5-7% reduction in domestic peak demand); (ii) provided evidence into the value and capacity for stakeholders to work together in community energy efficiency initiatives, laying a blue-print for stacking benefits and collaborative working to rollout network management solutions (see SDRC 8.8 Community Energy Coaching Final Report, June 2018).

Taking this learning into business as usual through SCMZs, SSEN is working to ensure that community groups have visibility of the DNO's need for flexibility and are stimulated to both be able to participate, and build collaborative (co-design/stacked) business cases to deliver flexibility services directly to the DNO. For instance a local council might be rolling out energy efficiency across their borough, it may be that an SCMZ provides a geographical price incentive for them to increase their energy efficiency campaign across the households served by the DNO's SCMZ site, allowing the council to stack funding for their initiative and expand it. Through market stimulation the DNO may even be able to facilitate collaboration with wider service providers, such as gas and water utilities to rollout joint utility customer benefits allowing for access to even more revenue streams and a more competitive/cost-effective network management tender. Market forces of a competitive tender process would drive price and allow the DNO to procure the most cost-effective and/or socially optimal solution to manage their SCMZ.

APPENDIX 5 – ANALYSIS OF BIG SWITCH OFF 9TH NOVEMBER 2018[1]

Reflecting a Legacy Plan commitment as set out in Appendix 2, Shirley Warren Working Together organised a second Big Switch Off event during the evening 4-8pm peak on Friday 9 November 2018, notionally for the period 6-7pm. A high level analysis of the impact of the repeat event as measured at substation feeders was undertaken by SSEN as follows:

Step 1

Electricity consumption (expressed in kWh) was measured for the whole of Shirley Warren using substation feeder data for the 24 hours of the BSO day divided into 10-minute intervals. Figure 1 shows consumption for the trial day, the week before and week after. It indicates the relationship between high consumption and low temperature, showing specifically a divergent correlation between consumption (solid line) and temperature (dotted line) for the trial day. The notional switch off period, 6-7pm, is highlighted between the two blue vertical lines.

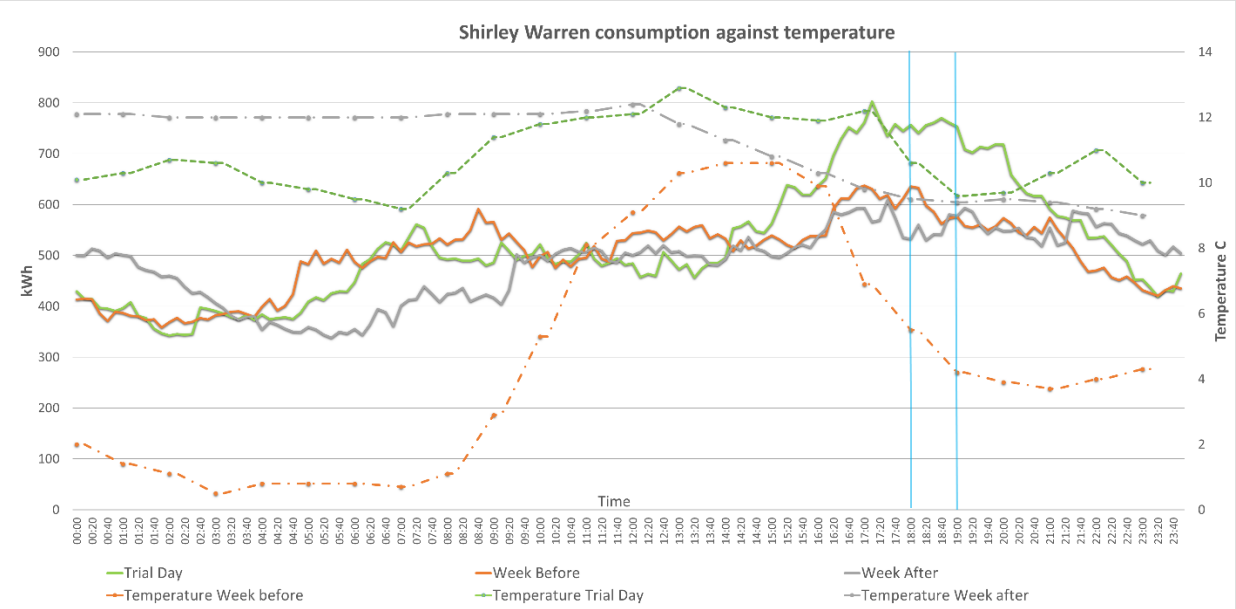


Figure 1 Shirley Warren 24 hour

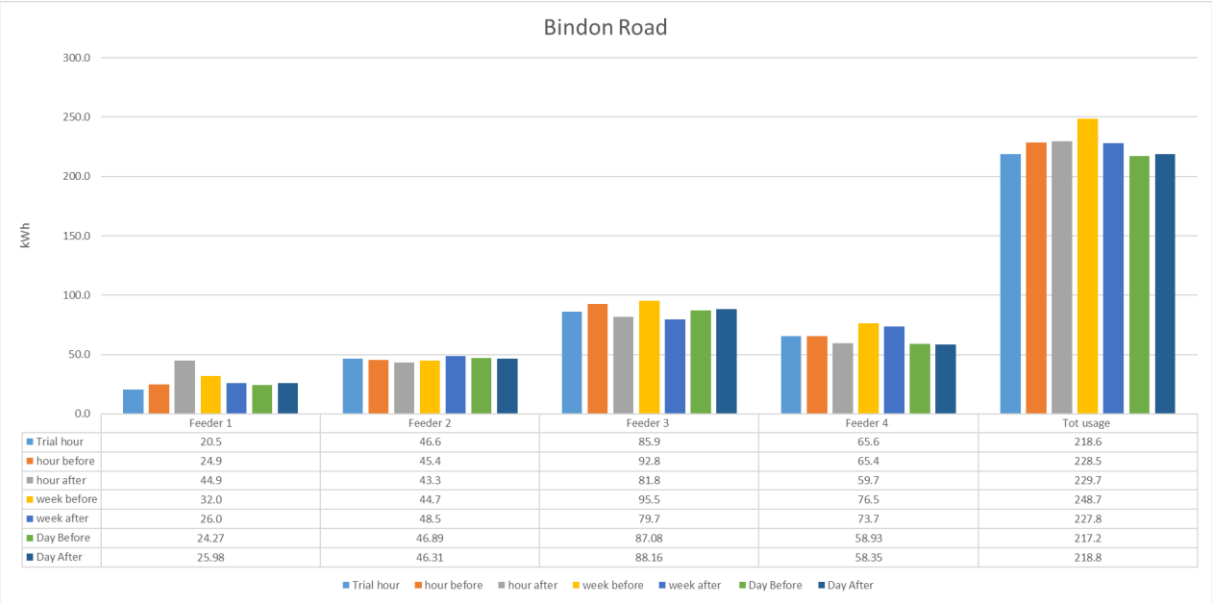
Step 2

Looking at specific feeder analysis, Figure 2 shows consumption as measured at Bindon Road[2] feeders for the trial hour, the hour before, hour after, week before, week after, day before and day after. It is possible to observe slight load reductions for the trial hour on Feeder 3 of 6.9 kWh as compared to the hour before and 9.6 kWh compared to the week before. Is also possible to observe for Feeder 3 that the consumption on the trial hour is lower than the both the day before and the

[1] This Appendix should be read in conjunction with Section 3.4.2 in the Final Report (June 2018) which addresses issues regarding feeder level analysis and Section 4.1.6 which sets out the original BSO impact analysis for trial and control area feeders.

[2] These are the feeders targeted for the original BSO event in November 2017. As part of this Post-trial Review, we also revisited households on these feeders who had signed up in 2017 to assess their continuing commitment to reduced peak consumption – see Section 2.2.2 above.

day after. Given variability across feeders a reduction of this scale cannot be quantified as statistically robust.



	Feeder 1	Feeder 2	Feeder 3	Feeder 4	Tot usage
Trial hour	20.5	46.6	85.9	65.6	218.6
hour before	24.9	45.4	92.8	65.4	228.5
hour after	44.9	43.3	81.8	59.7	229.7
week before	32.0	44.7	95.5	76.5	248.7
week after	26.0	48.5	79.7	73.7	227.8
Day Before	24.27	46.89	87.08	58.93	217.2
Day After	25.98	46.31	88.16	58.35	218.8

Trial hour hour before hour after week before week after Day Before Day After

Figure 2 Bindon Road substation: the graph shows the mean consumption on trial hour for the trial day, hour before, hour after, week before, week after, day before and day after

Step 3

Finally, data was further normalised by comparing trial feeders with a range of similar control feeders[3] for the trial day. Figures 3 and 4 show measured consumption for representative Bindon Road feeders, C and D, between 5pm and 8pm (with the notional trial hour, 6-7pm, highlighted) as compared with control area feeders outside of Shirley Warren. For both trial feeders results are largely inconclusive over thee peak period.

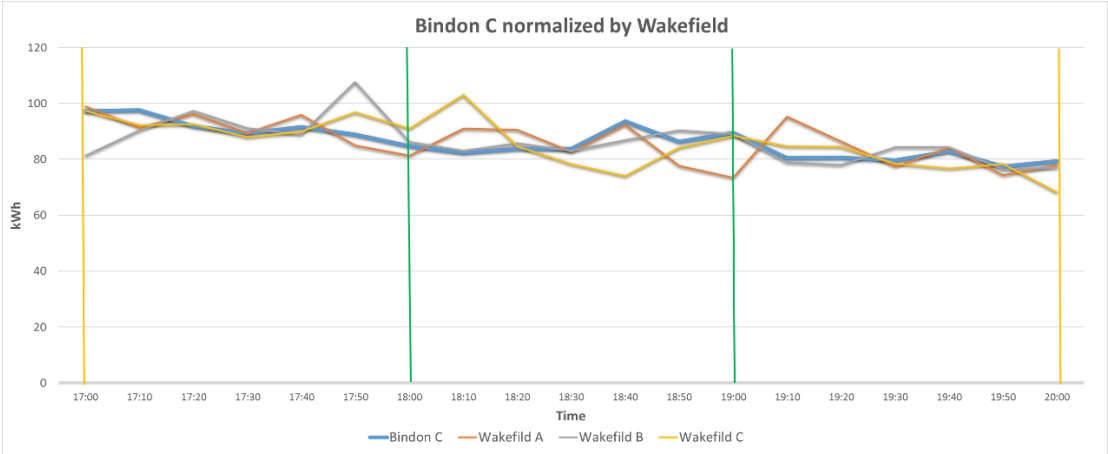


Figure 3 Bindon C: the graph shows the trend of consumption on the trial day for the feeder Bindon C normalized by Wakefield A, B and C

[3] See Final Report (SDRC 8.8, June 2018) Section 4

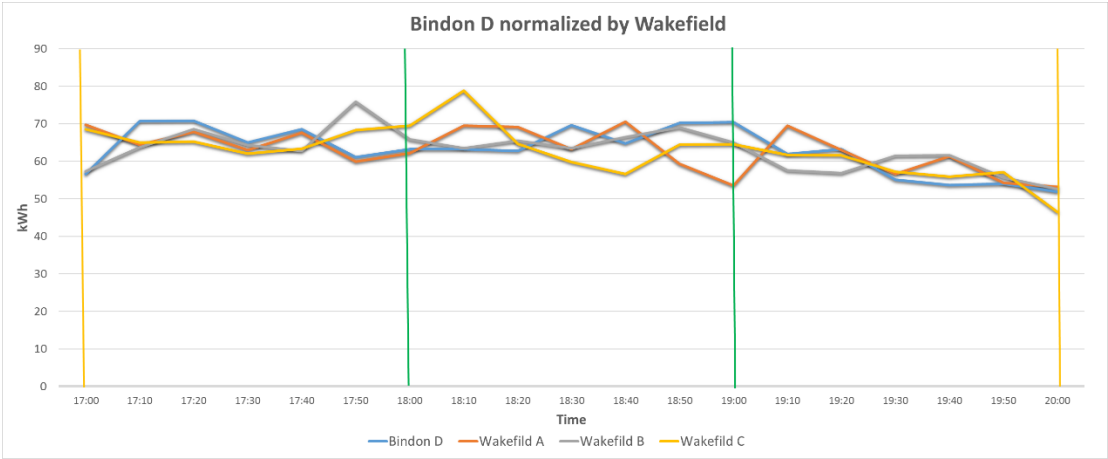


Figure 4 Bindon D: the graph shows the trend of consumption on the trial day for the feeder Bindon D normalized by Wakefield A, B and C

Overall Findings

Overall, the analysis has shown a higher consumption on the trial day, compared with the week before and week after for Shirley Warren as a whole. Looking at individual trial feeders, it is possible to observe for Bindon substation that usage drops by 30 and 10 kWh on the trial hour compared with the week before and week after respectively, however such reductions were not seen when comparing to other variables and hence outcomes remain inconclusive. The qualitative work completed in the report above, supported by anecdotal evidence in this appendix reinforces the encouraging level of continuing commitment to reduced peak consumption.