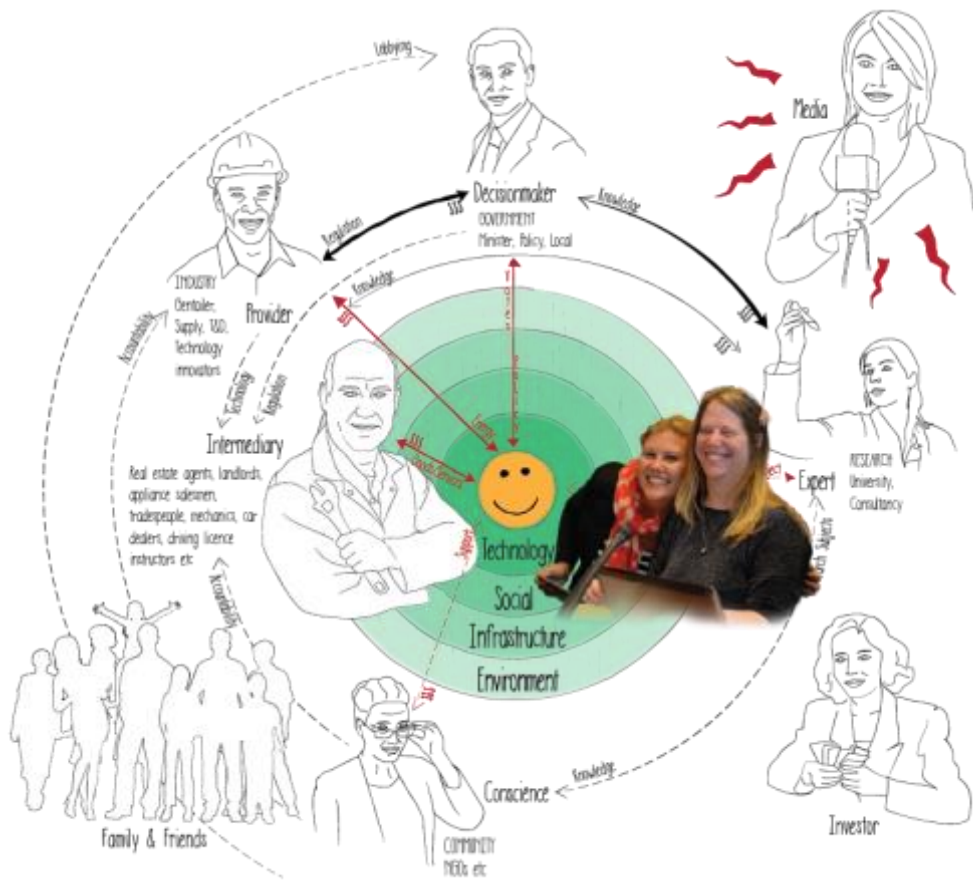


International Energy Agency  
 Energy Technology Initiative on  
 Demand Side Management Technologies and Programmes



## BEHAVE Task 24 workshop

*Task 24 – Phase II*  
 Helping the Behaviour Changers

September 2016

Dr Sea Rotmann

# Contents

BEHAVE Task 24 Workshop, September 7, 2016 .....	3
List of Attendees .....	3
Invite and Agenda .....	3
Agenda .....	4
The 3 case studies (NL, NZ, SE) .....	4
THE SWEDISH STORY OF GREEN LEASES IN COMMERCIAL BUILDINGS .....	4
THE NEW ZEALAND CASE STUDY STORY ON SHARING PV IN NEIGHBOURHOODS .....	5
THE DUTCH STORY OF GREEN ICT IN UNIVERSITY BUILDINGS .....	6
The Behaviour Changer roles, mandates, stakeholders and tools .....	7
The 'magic carpet' and storytelling exercise .....	7
The Swedish before/after stories .....	9
Beyond kWh presentation .....	12
Feedback from participants on the day .....	13
IEA Demand Side Management Energy Technology Initiative .....	15

# BEHAVE Task 24 Workshop, September 7, 2016

## List of Attendees

Over 70 experts who visited the [BEHAVE conference](#) at the University of Coimbra, September 8-9, also came to the Task 24 workshop. The full list of attendees is [here](#).

## Invite and Agenda

The emerging evidence suggests that our current economic and climate change paradigms need a radical shift with regard to the energy system. BEHAVE2016 is one of the major international conferences where we can discuss this important issue. This connected IEA DSM Task 24 workshop is designed to provide an overview to the wider systemic issues to do with behaviour change and to provide more hands-on solutions on how to solve them collaboratively. It will thus both introduce and practically support the issues that will be discussed at the BEHAVE conference. It is critical that we learn to understand our own and each other's role(s), both as end users and as 'Behaviour Changers' (i.e., the people who are designing, implementing and evaluating interventions to change end user behaviour).

This workshop is designed to help energy 'Behaviour Changers' from all different sectors and use a human-centered energy system framework to redesign our approach to the work that we do. The workshop will include some insights from the first three years of theoretical meta-analysis of Task 24, including an in-depth look at three interesting case studies from our participating countries and a very hands-on use of our 'Behaviour Changer Framework' to illustrate how to take a whole-system approach to the 'human' aspects of our energy system. It is a collaborative, shared-learning tool and supports a collective impact approach. Here is a [paper](#) on the 'magic carpet'.

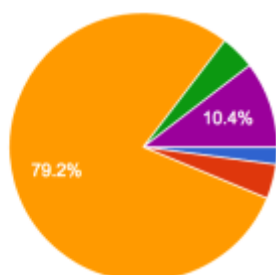
We will also explore the role of storytelling and double-loop learning in energy policy and practice as well as looking at how to better evaluate behaviour change programmes. There are [many different stories](#) that can be told, and many different ways in which we tell stories, depending on the audience. However, stories that are universal, easily understood, and memorable can help us overcome interdisciplinary jargon and ultimately break down silos between the different Behaviour Changers and the End User. These stories can then help us with the double-loop learning process that is needed to better understand our place in the energy system and how we can evaluate and collaboratively change it (for a background discussion see <http://www.ieadsm.org/wp/files/Subtask-3-Deliverable-3A-Final-Report.pdf>). For a background on how to standardise an evaluation tool for behavioural interventions, see here: <http://www.iepec.org/wp-content/uploads/2015/papers/077.pdf>.

We need your help to make this workshop a valuable experience, as we have so many attendees. **In order to be able to manage 70 attendees, please fill in [this form](#) for us with your preferences first.** It'll only take 3 minutes:

48 of you have filled out the form (thank you!) and here are some results:

We have had 28 different disciplines and sectors that work on energy (efficiency) and behaviour represented. The majority broke into the 'expert' segment and half of the respondents were most interested in the NZ case study on solar PV and neighbourhood sharing.

### Which Behaviour Changer would you identify as? (48 responses)



- The Decisionmaker - working in any level of government or policy making
- The Provider - anyone in the energy industry, be it energy or technology...
- The Expert - any researcher, both Academics and Consultants
- The Conscience - NGOs, community etc. Looks at environmental & socia...
- The Middle Actor - anyone who directly engages with end users, sel...

## Agenda

- 9:30 *Start, introductions*
- 9:45 [Overview of Task 24](#), with a focus on storytelling, double-loop learning and monitoring and evaluating behaviour change programmes
- 10:15 Presentation of 3 IEA DSM case studies
- 10:45 *Morning tea (just quick coffee and tea, no food)*
- 11:00 Storytelling exercise 1a, write the story of the case study you have just heard (everyone)
- 11:45 Discuss the main story lines and learnings
- 12:00 *Lunch and networking*
- 13:00 Behaviour Changer Framework exercise (3 case studies from NZ, NL and SE)
- 14:45 *Tea and coffee break*
- 15:00 Storytelling exercise 1b, re-write the story using double-loop learning (everyone)
- 15:30 [Beyond kWh monitoring tool](#) – and overview and collecting feedback from attendees
- 16:30 *Networking and drinks*

## The 3 case studies (NL, NZ, SE)

We decided to use our real-life Task 24 case studies from Sweden, the Netherlands and New Zealand to frame the workshop exercises. Because of the number of attendees, we had to break into 3 groups of 20+. We used our fairytale story spine format to summarise each of our case studies and took questions of clarification after. Given more time, it would have been good to explain the storytelling format in some more depth and to also flesh the stories out a little more, as there was some confusion (especially in the NZ case study). What we also received as very good feedback from Janet Stephenson, is that we should have left the last part - “And, ever since then” - off the stories as a cliff-hanger, as to give the attendees the chance to imagine their own ending to the story. This would have helped with their story writing as well.

Below are the 3 stories.

### THE SWEDISH STORY OF GREEN LEASES IN COMMERCIAL BUILDINGS

**Once upon a time...** There was beautiful country that was already a world-leader in sustainable building and energy initiatives. Its government wanted the Swedish Energy Agency to continue improving on this, just as long as the free market didn't get disturbed too much and the citizens didn't feel deprived of their freedom of choice.

**Every day...** The Agency, and its collaborators in business and research, were thinking of ways of how to improve the situation, trying out different measures, research and development that could influence the market without influencing and disturbing too much. They were sometimes successful and sometimes not so much, and it was difficult to know why some things worked and others didn't.

**But one day...** Task 24 came along and offered a way of getting into peoples' heads without impacting the marketplace whatsoever. The Behaviour Changers and End Users will themselves realise that more sustainable energy use will benefit them all and that people can change behaviours through understanding each others' needs and collaborating on solutions.

**Because of that...** The most burning issues (Green Leases in commercial buildings) that the marketplace wasn't able to solve were brought up to the table and the important Behaviour Changers gathered around it. They were at first a little careful when telling what problems they met in their daily work life but slowly they got more comfortable and exchanged their stories around this burning issue more freely. When they talked to the Middle Actors from the Green Lease organisation, it was clear that the current Green Lease system didn't work and amounted to little more than greenwash. The Agency and the Landlords and the Experts all realised that they couldn't do much on their own to solve this issue without others seeing the (multiple) benefits of the improvement.

**But then!** After having talked a couple of times the Behaviour Changers went home to their businesses and decided that the potential gains are too small for them, their bosses didn't see how spending time on Green Lease improvement will earn them more money. And the tenants' lawyers were very conservative and

looking out for the tenants' best interests, so they didn't want them to be locked into anything that wasn't clearly helping them. So the collaboration was on the brink of breaking down. And the Agency's financial support was too little to play a role.

**Because of that...** They realised that the conversation needed to start focusing on the bigger picture of how a good work place and a good neighbourhood might look like if more Behaviour Changers would cooperate and share the benefits. They also realised they really needed to include the End Users (tenants) and their lawyers to co-create the Green Leases so that everyone got all the (multiple) benefits they offered.

**Until finally...** They met again to try and co-design a better way forward.

**And, ever since then...** The future goal is that all landlords have started to offer the improved green leases to their commercial tenants all over the country and the tenants are happy to participate. **The end.**

## THE NEW ZEALAND CASE STUDY STORY ON SHARING PV IN NEIGHBOURHOODS

**Once upon a time...** There was a lovely country at the bottom of the world, with some of the worst building stock you can imagine. However, the *Decisionmakers* in charge of energy efficiency and the *Conscience* in charge of making smart grids a reality and lots of *Experts* and even some forward-thinking *Providers* wanted to create a better place for all Kiwis.

**Every day...** Kiwis had too long showers that were way too hot. Some left the lights on but others didn't even turn the heater on when it was clearly cold, because they were afraid of the cost. Most suffered from the bad housing stock, which was underinsulated, damp and cold. But there were some engaged Kiwis who wanted to reduce their carbon footprint to feel better about their legacy to the world, and save some money in the process. They heard about the 'solar revolution' and wanted to be part of it.

**But one day...** They were blessed by a *Provider* from their network company who turned into a *Middle Actor* for a trial and installed solar PV, a more efficient heating system, insulation and a range of cool and easy gadgets to manage it all in their home. The reason the network company was doing that was because it realised that with some 21<sup>st</sup> century engagement, like smart technology and by getting *Decisionmakers* to change the rules, they could help Kiwis get happier, more comfortable and more efficient. And they would ensure that their business model would continue even once more and more Kiwis decided to go off the grid, or sell power back to the grid.

**Because of that...** The Kiwis who participated in the trial could now have longer, even hotter showers, comfortable in the knowledge that their solar system had heated the water, and it didn't cost them anything. The Kiwis slept well in the knowledge that they were greener and making a difference to the world and their wallet. The network company was able to learn about what loads could be shifted to reduce utility costs and help customers to use energy in ways which increased their authority, improve their community and make them feel special.

**But then!** They suddenly realised that they had too much solar to use all of it! The payback price to export it back to the grid was laughable and they felt let down that their lovely, self-generated solar wasn't worth more. So they started doing silly things, like turning the lights on during the day and the heat pump to cool down the house on the weekend when they were not at home just so that they didn't have to sell back power to the grid at basement bargain prices. To top it all off, some technocratic and conservative *Providers* said "Hold on! You can't trust fickle *End Users* to do all this stuff!". So they built competitors who are automating the system and got regulators (other *Decisionmakers*) to question why the network was doing stuff with the customer where the customer was really doing their job. They even created a penalty on anyone who sold solar back into the grid!

**Because of that...** The network *Middle Actors* had to demonstrate how their work actually helped customers and created value for both them and all Kiwis. They had a lot of inertia and outdated neoliberal capitalist thinking to overcome.

**Until finally...** They decided to join Task 24 and do a pilot in collaboration with some of the most forward-looking and creative *Providers*. Any new solar customers who joined these *Providers* could be identified by

what their low voltage circuit was and match them with the nearest existing customers on the same circuit. Now new customers that joined the scheme could be matched with existing prosumers who had their own solar PV on the same network and share their excess electricity. All this was supported by the *Conscience* and the *Experts* that evaluated and showed that by creating value for Kiwis to have better lives by working with them and helping them connect with everyone else, it would create a bigger pie for all.

**And, ever since then...** The technocrats lost their fight to create automatons and remove the *End User* from the equation and the networks changed how they looked at their customers and started putting their needs first. They started discussions around 'assets' that were relevant to them and how they could best create value that delivered, for the long-term, the most efficient network. The Kiwis suddenly felt that solar was the best investment ever. **The end.**

## THE DUTCH STORY OF GREEN ICT IN UNIVERSITY BUILDINGS

**Once upon a time...** A group of passionate energy efficiency girls in the Netherlands was looking for a pilot project that they could support and facilitate in becoming more sustainable in terms of energy saving and efficiency. They found the perfect pilot: universities. Their focus would be on how universities use ICT and how to green that use, or how to use ICT to green universities. Quickly, Groningen University emerged as the perfect candidate.

**Every day...** Different *Behaviour Changers* at this University already worked on sustainable energy issues. The *Decisionmakers* did a lot of lobby work, organised working groups, initiated a university award and even set up a special *Conscience* and *Middle Actor*: an office consisting of paid students and a paid staff member - *The Green Office*. The *Experts* researched and piloted sustainability innovations, or tried to get people to use their computers less. The *Providers*, the energy -, ICT - and demand managers tried to make their faculties as efficient as possible, in the quickest way possible, through technological interventions.

**But, one day...** the passionate Dutch girls started preparatory talks preceding the workshop with the *Behaviour Changers*, to find out that there were serious challenges were for the *Behaviour Changers* in their efforts (or ambitions) to implement their best ideas and in getting ICT and its greening on top of the agenda. The *Decisionmakers* actually felt already quite satisfied as they got this beautiful nomination (being 2015's 'Most Sustainable University of the Year') to underpin their green image. In addition, they had realised impressive savings indeed already. Green ICT was nice but not a priority for the *Decisionmakers*, so could the girls not focus on sustainable mobility or healthy food instead? The *Green Office* told the girls that they still had to figure out what to do and how to do it and that ICT was very interesting but how, exactly? The *Experts* told them that technology was the key, because behaviour was too difficult, so yes to working in the cloud but no to getting people to switch off their computers when they went home. The *End Users* (the students) said, why can't the facility manager do the switching off, that is much easier! The *Provider*, the facility manager, wanted to use ICT to find out when and where people are working so that they can adjust the room temperatures accordingly. So they told them: forget about humans and behaviour, change the building! There was one thing however they all agreed on: whatever idea you put forth, the *Decisionmakers* judged it from a Return on Investment (ROI) perspective and mainly went for the quick and visible impacts. Longer term investments in huge energy savings and CO<sub>2</sub> emission reductions were not considered attractive due to the relatively low Dutch energy prices, in combination with the conviction that too much sustainability would go at the cost of the primary mandates (research and education).

**Because of that...** the girls focused the workshop on how to get the *Decisionmakers* to engage with the *Behaviour Changers*. Since the attractive interventions (brief ROI, quick and big impact) had already been done, most of what the *Behaviour Changers* came up with, would likely not be approved by the *Decisionmakers*. The hope was that, through their engagement, the *Decisionmakers* would learn to appreciate and support at least a few of the bottom-ideas. Discussions were held, drivers, benefits and barriers for each idea discussed...

**But then!** The *Decisionmakers* did not attend the workshop - although they said they were highly interested... The girls felt confident that because of that, they should go to the *Decisionmakers*, to try and make them see and feel this bottom-up passion and pool of ideas. They tried but to no avail...the *Decisionmakers* were not impressed, nor inclined to change their position.

**Because of that...** They girls felt 'down' and did not know what message to give back to all the *Behaviour Changers* who had given them so much of their time and who had in fact warned the girls beforehand that this would happen.

**Until, finally...** they tried to think about what the *Behaviour Changers* had said, although perhaps not with so many words, and this was that the *Green Office* should be the key. They were mandated by the *Decisionmakers* to be the *Middle Actors* and get initiative from the ground up and running. But the *Green Office* yet had to find the tools and means to empower themselves to empower the others. How to do that? The girls decided to ask the Coimbra participants for their bright ideas on this.

**And, ever since then...** The *Green Offices* that were started at all Dutch universities worked on their empowerment and became increasingly effective at mediating between the bottom-up initiatives and the *Decisionmakers*, thereby contributing to a change in discourse that regards sustainability and primary processes (research and education) as mutually strengthening rather than in a struggle for short term financial resources'. **The end.**

## The *Behaviour Changer* roles, mandates, stakeholders and tools

We didn't have the time to let everyone discuss and develop their own roles etc., nor did we have the time to do the usual roleplaying of each other's characters, to inspire more empathy between the participants. The latter was not as important here, as many experts were already role-playing other *Behaviour Changer* characters, and none were actual experts in the case studies at hand (except for Ruth, Janet and Sea who played the *End Users* in each of the 3 scenarios). Seeing that the 'magic carpet' framework is designed to be used with no more than 10-15 of the relevant *Behaviour Changer* stakeholders of the very specific issue that we focus on, it actually worked surprisingly well under these scenarios (once the initial confusion about the details of the case studies was resolved, and what the point of the exercise was became more clear). The attendees did a great job role-playing their characters and discussing their various roles and scenarios with each other.

You can find each of the roles, mandates, stakeholders and tools each *Behaviour Changer* would bring to the table, [here](#).

## The 'magic carpet' and storytelling exercise

The idea was that, like in a murder mystery play, we would role-play the different roles and try to solve the issues we were facing (as told in each of the case study stories). We asked each *Behaviour Changer/s* to write a short story using the fairy tale story spine (see an example with prompts [here](#)), explaining their current situation and what their perfect goal/outcome would be. We told a 'chapter' each of the story, going around a circle to the different *Behaviour Changers*. Then we ran the 'magic carpet' framework and discussed the *End User's* behaviour and their various contexts in which we would try to change it. After that, we read everyone's story and drew in the relationships, with all their 'hearts' and 'bombs' (i.e. good relationships vs conflicts) between the various *Behaviour Changers* and also the *End User*. During this process, we discussed possible solutions and mutually-shared goals and outcomes (if we had time, we would have also gone into discussing each ones' multiple benefits, aside from kWh savings). Then we told the *Behaviour Changer* stories in chapters again to see how similar or different they were compared to the first round (note: they were all a lot more similar in the second round). You can see the photos from each of the 3 case studies below (they would usually now be put into an animated Prezi, to make it easier to make sense of the various layers of how we came to these results). The Swedish before/after stories are also provided below as examples. The **Dutch** and NZ stories can be found [here](#).

*Our Swedish magic carpet and Behaviour Changers*



*Our Kiwi magic carpet and Behaviour Changers*





## Our Dutch magic carpet and Behaviour Changers



## The Swedish before/after stories

### *The Decisionmaker (Swedish Energy Agency) – Before the exercise*

Once upon a time... Energy efficiency of buildings was good but tenants were poorly behaved.

Every day... Energy was wasted because building occupants saw no or insufficient benefit in changing their ways.

But, one day... it was suggested that landlords get tenants to sign Green Leases. But no one understood the benefits to anyone or what the role of the landlord was in controlling the behaviour of their tenants!

Because of that... The full benefits of 'good behaviour' were explained to the tenants (and possibly some regulatory or other controls/drivers were placed on them to improve) and therefore landlords didn't need to force them to do it right.

And, ever since then... Tenants wanted (or had to) improve their behaviour and they thus valued landlords who supported them in behaving better (including monitoring their multiple benefits). Thus, landlords would charge higher rents and they helped occupants improve their behaviour. The End.

### *After the exercise*

Once upon a time... Energy efficiency of buildings was good (but could be better) and tenants were poorly behaved.

Every day... There was little or no data on Green Lease compliance and benefits and no one understood the benefits for the *other* people/Behaviour Changers involved.

But, one day... We all worked together in a multi-disciplinary/sectoral environment to better understand the perspectives/benefits of each of the audiences involved.

Because of that... We designed a new Green Lease and the supporting policy/guidance that everyone was happy with. We also funded R&D to gather data and monitoring and evaluation devices to identify what relies on technology vs behaviour and created jobs with the 'Green Lease monitor'.

And, ever since then... We all decided to co-create a Green Lease system that benefits everyone, where the multiple benefits to all can be clearly shown and will contribute to Sweden's office buildings becoming carbon neutral. The End.

### *The Provider (Landlords) – before the exercise*

Once upon a time... There was a beautiful country which was already a world leader in sustainable commercial buildings and energy initiatives.

Every day... My tenants seem happy and pay their rent on time and my life as landlord was very easy and simple!

But, one day... The Swedish government introduced Green Leases which complicated my easy situation. I can now charge more rent and the buildings are even more energy efficient. However, I may have problems selling this concept and the higher rents to my tenants first.

Because of that... My office tenants might feel that they have to impose changes on their staff, but we would like to support them in it. So we asked the Landlord Association to support and guide us in this process.

And, ever since then... We have been able to exploit the process and tailored it for individual buildings to encourage our tenants to take part in the Green Lease programme. The End.

### *After the exercise*

Once upon a time... There was a beautiful country which was already a world leader in sustainable commercial buildings and energy initiatives.

Every day... My tenants seem happy and pay their rent on time and my life as landlord was very easy and simple!

But, one day... The Swedish government introduced Green Leases after a stakeholder consultant and they were easy to implement because it was clear who was responsible for what, and the associated many benefits were assessed and clear for all.

Because of that... The Landlord Association established an excellent approach and we were able to justify and tailor the details with the End Users (tenants) so that we all benefited.

And, ever since then... We co-created a Green Lease system that benefits everyone, where the multiple benefits to all can be clearly shown and will contribute to Sweden's office buildings becoming carbon neutral. The End.

### *The Experts (Academics and Consultants) – before the exercise*

Once upon a time... The Swedish Energy Agency wanted to promote the use of Green Leases in office buildings.

Every day... They faced problems to get tenants and landlords committed to GL, mainly leading to 'green wash'.

But, one day... The Agency invited us experts to identify and operationalise the benefits for the different players.

Because of that... The promotion of GL was focused on the economic, social and environmental benefits for everyone and it led to the creation of sustainable work place culture with good examples showing benefits only 6 months after introduction.

And, ever since then... The number of GL exploded and the leases fulfil their real purpose: profound behaviour change was achieved. The End.

### *After the exercise*

Once upon a time... The Swedish Energy Agency wanted to promote the use of Green Leases in office buildings.

Every day... They faced problems to get tenants and landlords committed to GL, mainly leading to 'green wash'.

But, one day... The Agency invited the expert group, together with all the other stakeholders, to co-create improved GL contracts. The experts were funded by the Agency and the Landlord Association and its member Landlords. The main task for the experts was to identify and operationalise multiple benefits for stakeholders.

Because of that... The promotion of GL was focused on multiple benefits and how to measure them, for everyone. As a neutral member, we identified the multiple benefits in collaboration with the other stakeholders. We ensured the multiple benefits were measurable, provided the right kind of data to the stakeholders and started some pilot projects which we all co-designed.

And, ever since then... We co-created a Green Lease system that benefits everyone, where the multiple benefits to all can be clearly shown and will contribute to Sweden's office buildings becoming carbon neutral. The End.

### *The Middle Actors (Landlord Association) – before the exercise*

Once upon a time... We were promoting the use of Green Leases in office buildings to landlords and tenants.

Every day... We would tell Landlords that they should use GL. They told us that this was too risky an investment and not working for them in the form that they were in.

But, one day... The Swedish Energy Agency invited us work together on this.

Because of that... We worked with other member landlords to identify how benefits and risks could be shared differently, and identified ways that costs could be subsidised (e.g with tax rebates).

And, ever since then... We have had more GL with more impacts on energy savings and reputational and other benefits for our members, the Landlords. The End.

### *After the exercise*

Once upon a time... We were promoting the use of Green Leases in office buildings to landlords and tenants.

Every day... We would tell Landlords that they should use GL. They told us that this was too risky an investment and not working for them in the form that they were in.

But, one day... We realised they needed more data, information and tools to show the real and multiple benefits that entering into these contracts would deliver them, like better reputation, financial benefits, increased value of real estate, healthier working environments and more productivity and higher retention of staff and tenants.

Because of that... We decided to work together with all the other stakeholders to provide the necessary missing data and information that would allow them to make a more informed decision.

And, ever since then... We co-created a Green Lease system that benefits everyone, where the multiple benefits to all can be clearly shown and will contribute to Sweden's office buildings becoming carbon neutral. The End.

### *The Conscience (Lawyers) – before the exercise*

Once upon a time... The Swedish government wanted to cut emissions, introduce energy efficiency and sustainable practices. They developed a policy whereby GL would be introduced into the commercial rental sector.

Every day... Tenants were choosing the most simple, low-hanging fruit offers and landlords were happy with this 'green wash' too, as it didn't cause them any problems. However, it didn't do much in terms of sustainable development.

But, one day... The Swedish Energy Agency stepped into stop the green washing and they directed that the Landlords and Tenants work together to come up with a more effective plan. The lawyers were called in to ensure that the agreement was fair and that both parties stuck to their contracts.

Because of that... The lawyers promoted a strong agreement in line with Swedish law which was practical and possible for both sides.

And, ever since then... Both sides were happy to introduce the measures and a third party was set up to monitor the implementation and development of the plan. A mediation process was set up, so tht if conflict arose each case didn't necessarily have to go to court. The End.

### *After the exercise*

Once upon a time... The Swedish government wanted to cut emissions, introduce energy efficiency and sustainable practices. They developed a policy whereby GL would be introduced into the commercial rental sector.

Every day... Tenants were choosing the most simple, low-hanging fruit offers and landlords were happy with this 'green wash' too, as it didn't cause them any problems. However, it didn't do much in terms of sustainable development.

But, one day... The lawyers intervened and worked with the landlords and tenants to put in place a list of actions tht needed to be carved out. They also delved into the implications and pitfalls of each action to ensure nobody went in blindly.

Because of that... Government and experts set up the necessary monitoring and evaluation mechanisms for the lawyers to be able to create the most effective GL contracts that benefited everyone.

And, ever since then... We co-created a Green Lease system that benefits everyone, where the multiple benefits to all can be clearly shown and will contribute to Sweden's office buildings becoming carbon neutral. The End.

### *The End User (Office tenant) – before the exercise*

Once upon a time... I moved my company office into a building with a Green Lease because being more green was important to our image.

Every day... I struggled trying to get my lawyers to agree to more stringent clauses and my employees to follow my good lead.

But, one day... The Swedish Energy Agency and Landlord Association approached me via my Landlord and said they wanted to help me be a leader by listening to my issues and co-create a GL that would work for my employees and keep my risk-averse lawyers happy.

Because of that... We all sat down and started discussing our main issues, complexities, inherent conflicts and relationships.

And, ever since then... I have now a GL that benefits both me and my Landlord, that my employees love so much that they are taking their new found knowledge and use it at home. My lawyers started a company solely concentrated on green leases! And the Swedish Energy Agency can yet again be proud to have made Sweden the envy of the world. The End.

## Beyond kWh presentation

Dr Rebecca Ford, from Oxford University, held a quick presentation on the [Beyond kWh monitoring tool](#) developed by her and Drs Beth Karlin (Norman Lear Centre, US) and Cindy Frantz (Oberlin), in conjunction with Task 24's Subtask 9. The toolkit followed an in-depth methodology review of 10 years' worth of papers written on residential energy efficiency and feedback, where the authors found that there were no clear

methodologies to assess and evaluate impact, thus impeding any form of comparison between studies ([Karlin et al, 2015](#)). More background reading on Subtask 9, including the toolkit development and psychometric testing, can be found [here](#). She provided handouts for further reading and a survey form to collect some main points of contextual and cultural feedback from the participants. This feedback, and interest from any participants to partake and trial the tool in their country/case studies, will help shape and adapt the tool to different circumstances. More feedback and queries can be sent to [rebecca.ford@ouce.ox.ac.uk](mailto:rebecca.ford@ouce.ox.ac.uk).

## Feedback from participants on the day

Thank you to everyone who provided us with feedback on the day, we will use it to learn and make future Task 24 workshops a better experience. Overall, the feedback was very positive and people seemed to have enjoyed the day and learned a lot of new things. Most commonly mentioned as the

### Top 3 learnings from the day were:

- How to design an intervention taking into account needs and viewpoints of multiple actors
- The importance of getting key people around the table, roleplaying to create empathy
- Storytelling approach – a great way to quickly understand different people’s points of view and help structure chaos; not as scary as it first seems to be!
- A systematic approach helping the dialogue between different stakeholders; visualising the system makes it easier
- The beyond kWh toolkit and its handouts is a great start and desperately needed
- Double-loop learning process and co-creation
- Needs to focus on a very specific issue and invite the right people
- Stakeholder relationships can involve both love and hate at the same time
- Conflict analysis and mapping of it is essential when dealing with multiple stakeholders in complex systems
- Finding a common goal is essential

### Other issues you would have liked to explore more:

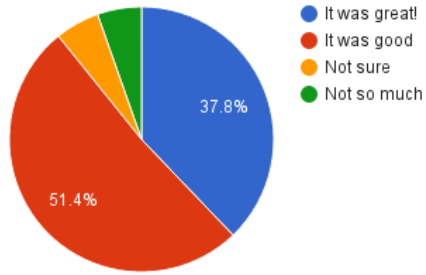
- How to conduct the best baseline assessment with limited data
- Deeper focus on values and motivations of different stakeholders
- Understanding the research theory behind the model
- How to get not-formally-organised stakeholders on board
- System process as a ritual process and learnings
- Behaviour and energy in developing countries
- Multiple benefits and how to measure them
- Cost-benefits for consumer behaviour change
- How to decide which interventions to use and when
- How to defuse conflicts and develop the intervention roadmap
- What process do you follow to find the ‘common goal’ or one issue you are concentrating on?
- More from the end user perspective

### Your main concerns about the day were:

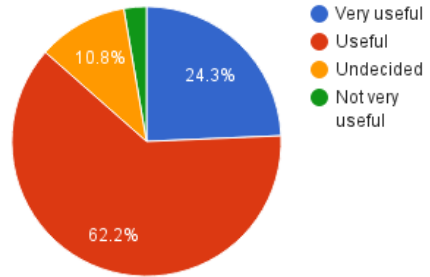
- Too many people for everyone to share their ideas
- It went too fast and was a bit rushed, making you unhappy with the end result of the exercise
- The beyond kWh presentation was too late in the day and a bit rushed
- The uses of all the tools could have been made clearer
- Would like to see the ‘magic carpet’ in a real setting, [how can we find out more about it?](#)
- Meeting room facilities were not appropriate for such a large group, too hot and loud and beamer didn’t work well to make slides readable
- Will the beyond kWh tool come up with condensed information for policymakers?
- Beyond kWh tool may have issues when standardising it due to very different cultural/country contexts
- The initial narrative of case studies was a bit confusing and maybe could have been already shown from the different Behaviour Changers’ perspectives?
- Difficult acoustics meant we need notes with the slides on the tables, especially in the back.

Some of the stats from the day show that, overwhelmingly, people got something useful out of the workshop and got to do some networking. Storytelling was most liked by most participants.

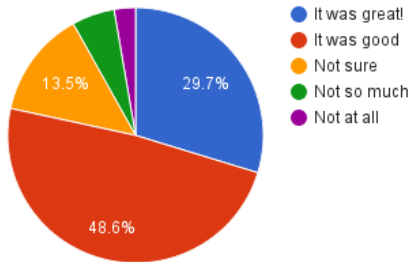
**Was this workshop useful to you?**



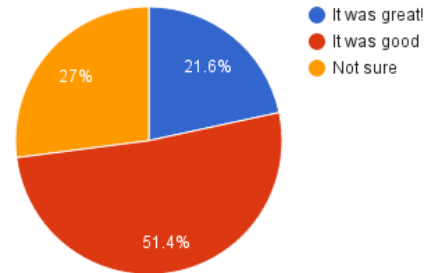
**Did you like the storytelling exercise?**



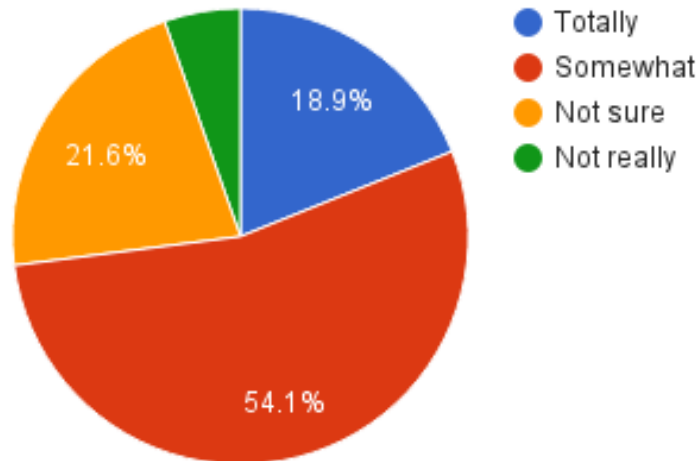
**Did you like the 'magic carpet' exercise?**



**Did you like the 'beyond kWh' toolkit?**



**Was there sufficient opportunity for you to talk/ network/add to the topic?**



## IEA Demand Side Management Energy Technology Initiative

The Demand-Side Management (DSM) Energy Technology Initiative is one of more than 40 Co-operative Energy Technology Initiatives within the framework of the International Energy Agency (IEA). The Demand-Side Management (DSM) Energy Technology Initiative, which was initiated in 1993, deals with a variety of strategies to reduce energy demand. The following member countries and sponsors have been working to identify and promote opportunities for DSM:

Austria	Norway
Belgium	Spain
Canada	
Finland	Sweden
India	Switzerland
Italy	United Kingdom
Republic of Korea	United States
Netherlands	ECI (sponsor)
New Zealand	RAP (sponsor)

**Programme Vision:** Demand side activities should be active elements and the first choice in all energy policy decisions designed to create more reliable and more sustainable energy systems

**Programme Mission:** Deliver to its stakeholders, materials that are readily applicable for them in crafting and implementing policies and measures. The Programme should also deliver technology and applications that either facilitate operations of energy systems or facilitate necessary market transformations

The DSM Energy Technology Initiative's work is organized into two clusters:  
The load shape cluster, and the load level cluster.

The 'load shape' cluster will include Tasks that seek to impact the shape of the load curve over very short (minutes-hours-day) to longer (days-week-season) time periods. Work within this cluster primarily increases the reliability of systems. The 'load level' will include Tasks that seek to shift the load curve to lower demand levels or shift between loads from one energy system to another. Work within this cluster primarily targets the reduction of emissions.

A total of 24 projects or "Tasks" have been initiated since the beginning of the DSM Programme. The overall program is monitored by an Executive Committee consisting of representatives from each contracting party to the DSM Energy Technology Initiative. The leadership and management of the individual Tasks are the responsibility of Operating Agents. These Tasks and their respective

Operating Agents are:

Task 1 International Database on Demand-Side Management & Evaluation Guidebook on the Impact of DSM and EE for Kyoto's GHG Targets – *Completed* (Harry Vreuls, NOVEM, the Netherlands)

Task 2 Communications Technologies for Demand-Side Management – *Completed* (Richard Formby, EA Technology, United Kingdom)

Task 3 Cooperative Procurement of Innovative Technologies for Demand-Side Management – *Completed* (Hans Westling, Promandat AB, Sweden)

Task 4 Development of Improved Methods for Integrating Demand-Side Management into Resource Planning – *Completed* (Grayson Heffner, EPRI, United States)

Task 5 Techniques for Implementation of Demand-Side Management Technology in the Marketplace – *Completed* (Juan Comas, FECSA, Spain)

Task 6 DSM and Energy Efficiency in Changing Electricity Business Environments – *Completed* (David Crossley, Energy Futures, Australia Pty. Ltd., Australia)

Task 7 International Collaboration on Market Transformation – *Completed* (Verney Ryan, BRE, UK)

Task 8 Demand-Side Bidding in a Competitive Electricity Market – *Completed* (Linda Hull, EA Technology Ltd, United Kingdom)

Task 9 The Role of Municipalities in a Liberalised System – *Completed* (Martin Cahn, Energie Cites, France)

Task 10 Performance Contracting – *Completed* (Hans Westling, Promandat AB, Sweden)

Task 11 Time of Use Pricing and Energy Use for Demand Management Delivery- *Completed* (Richard Formby, EA Technology Ltd, United Kingdom)

Task 12 Energy Standards (To be determined)

Task 13 Demand Response Resources - *Completed* (Ross Malme, RETX, United States)

Task 14 White Certificates – *Completed* (Antonio Capozza, CESI, Italy)

Task 15 Network-Driven DSM - *Completed* (David Crossley, Energy Futures Australia Pty Ltd, Australia)

Task 16 Competitive Energy Services (Jan W. Bleyl, Graz Energy Agency, Austria)

Task 17 Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages (Seppo Kärkkäinen, Elektraflex Oy, Finland; Matthias Stifter/René Kamphuis)

Task 18 Demand Side Management and Climate Change - *Completed* (David Crossley, Energy Futures Australia Pty. Ltd, Australia)

Task 19 Micro Demand Response and Energy Saving - *Completed* (Linda Hull, EA Technology Ltd, UK)

Task 20 Branding of Energy Efficiency - *Completed* (Balawant Joshi, ABPS Infrastructure Private Limited, India)

Task 21 Standardisation of Energy Savings Calculations – *Completed* (Harry Vreuls, SenterNovem, NL)

Task 22 Energy Efficiency Portfolio Standards – *Completed* (Balawant Joshi, ABPS Infrastructure Private Limited, India)

Task 23 The Role of Customers in Delivering Effective Smart Grids – *Completed* (Linda Hull, EA Technology Ltd, United Kingdom)

Task 24 Phase 1: Closing the loop - Behaviour Change in DSM: From theory to practice (Sea Rotmann, SEA, New Zealand and Ruth Mourik DuneWorks, Netherlands)

Task 24 Phase 2: Behaviour Change in DSM: Helping the Behaviour Changers (Sea Rotmann, SEA, NZ)

Task 25 Business Models for a more Effective Market Uptake of DSM Energy Services (Ruth Mourik, DuneWorks, The Netherlands)

For additional Information contact the DSM Executive Secretary, Anne Bengtson, Liljeholmstorget 18,11761 Stockholm, Sweden. Phone: +46707818501. E-mail: [anne.bengtson@telia.com](mailto:anne.bengtson@telia.com)  
Also, visit the IEA DSM website: <http://www.ieadsm.org>

**DISCLAIMER:** The IEA enables independent groups of experts - the Energy Technology Initiatives, or ETIs. Information or material of the ETI focusing on demand-side management (IEA-DSM) does not necessarily represent the views or policies of the IEA Secretariat or of the IEA's individual Member countries. The IEA does not make any representation or warranty (express or implied) in respect of such information (including as to its completeness, accuracy or non-infringement) and shall not be held liable for any use of, or reliance on, such information.