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MARK THROWER, MANAGING EDITOR



SERIES **16** | MODULE **06** | **BEHAVIOUR CHANGE**

Tools and techniques to deliver behaviour change

James Brittain, director of the Discovery Mill and freelance energy consultant

People-focused solutions are often one of the quickest and most cost-effective ways of delivering energy savings and energy performance improvement at scale for any organisation.

According to the energy hierarchy, energy conservation should be prioritised before investments in clean technology and renewable energy sources, and behaviour change and people measures are a key first part of this efficiency first principle, being low cost interventions.

This approach not only helps to assure the legacy benefits of previous energy investment programmes but also the resulting energy savings helps to right size any subsequent investments in technology and energy supply solutions.

We need to look beyond technology, facilities, systems, processes, equipment etc, in terms of better energy performance. People are the ultimate consumers of energy; people will ultimately deliver the better buildings and sustainability improvements aligned to business needs. The secret is often being able to balance and integrate our technical and people solutions, with good strategic management controls alongside.

Our Series 12, Module 2 CPD article on behaviour change (June 2016) covered the opportunities, challenges and other considerations to strategically plan and control for the catalyst for change.

This CPD module builds on this and focuses more on the tactical and practical tools and techniques that enable people solutions to deliver change at scale.

Learning objectives include:

- identify who we need to target to raise awareness;
- explain why people buy into the



process on a personal level;

- consider what tools and techniques can help make it quicker and easier to do;
- plan how to develop the opportunity for local responsibility/ownership and continual improvement.

There is no silver bullet that works for everyone. This article refers to a range of example tools and techniques (highlighted in ‘bold’) typically used by organisations in behavioural change programmes, categorised by function.

All organisations are different so success will rely on the right combination of techniques so it works for the organisation concerned.

For behaviour change to be successful and enduring, critical mass theory suggests we need to typically involve at least 2 to 5 per cent of the population. For an organisation with say 4,000 employees, this means we would reach a tipping point if we energised 80+ colleagues to think about better energy performance every day. For the UK, with approximately 33m employees, this means more than 1m people overall need to be involved.

John Adair, best-known for his action-centred leadership model, says: “Organisation comes into being because there is a task to be done that is too big for one person”.

According to his model, as well as defining the task (with purpose and milestones), there are two other fundamental objectives:

- to create the group; and
- to meet the needs of the individuals.

Creating and bringing together an energy management team is a fundamental part of any energy management strategy. This needs to be managed around the three main pillars of delivering action: motivation, opportunity and capability. This often involves significant energy users (SEURs): those who either have hands-on control of significant energy use or have decision-making capability to impact on significant energy use. This may include top management, procurement and design colleagues as well as estates and operational staff, HSE managers and anyone else under the control of the organisation, such as consultants, contractors and service partners.

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One simple and useful model, to bring all three pillars together and to meet the needs of the individual, is Prosci's ADKAR model of five building blocks:

- it starts with Awareness;
- then comes the decision to get involved, Desire;
- after desire comes Knowledge;
- then Ability to make change; and
- for change to be sustainable, Reinforcement is needed.

1) Awareness

It is essential that top management understands the opportunity and what is required in terms of financial and other resources so they can demonstrate their commitment and define energy policies.

Energy audits are a traditional tool that highlight energy improvement opportunities and lay the foundations for developing business cases.

Recommendations are better if the process involves your people. Opinion leaders, for example, can be included in surveys, night walks or innovation trials that highlight the energy inefficiency that is inevitably there; they then become ambassadors for change influencing colleagues.

Energy treasure-hunts, for example, are a way of engaging SEURs on a more general level, allowing them to put an energy improvement hat on and look at areas they know well. Key-connectors (energy champions) often can have a role to play in making connections between people and activities, helping to identify the best opportunities and critical challenges.

This is also often a good opportunity to talk to and listen to colleagues about their working environment and people's motivations and awareness. Using a mix of techniques (events, workshops, questionnaires, interviews, etc) often gives a good authentic picture of how we are doing. John Adair also said "Communication is the sister to leadership".

Communications can help increase people's knowledge or understanding through education. Evidence suggests targeted information passed on by peers is likely to be more effective than general information provided through printed material such as posters and stickers.

Peers may use storytelling as a more interesting way of communicating without falling into the trap of greenwash or too much jargon.

Everyone within the organisation's control ultimately needs to become aware of the importance and benefits of improved energy performance and how their activities impact on energy use.

It is a common error to think awareness campaigns change behaviour. Awareness increases knowledge but, to be effective, it needs to be part of an integrated approach.

2) Desire

A classic war time quote, originally attributed to Eisenhower, says "Leadership is the art of getting someone else to do something you want done because they want to do it for themselves".

To deliver this Win Win, we need to understand that people love emotive connections: What is going to spark change? What is going to make it desirable? This is not necessarily going to be energy saving or environmental improvement in itself! Psychologists tell us that it is often the co-benefits that are the drivers for success so we need to find out what motivates people on a personal level.

We need a compelling vision, or big idea, to get people excited. To develop this, we can draw on some of the classic motivational theories of Maslow, McGregor, Herzberg, etc.

Maslow's hierarchy of needs, for example, suggests that people are motivated by biological needs (health, working environment, etc), safety needs (improved skills sets,

work security, etc), belongingness (part of a team, enhanced morale, etc) and then esteem (achievement, recognition, etc); once these are satisfied, we focus on self-actualisation drivers that are related to new experiences and fulfilment.

Incentivisation is about linking challenge with reward. This may include prize draws, financial rewards and/or social rewards drawing on competition, recognition and/or achievement. This is different to coercion which uses penalties.

Studies suggest that social rewards (e.g. based on league tables) are often more effective than financial rewards but this would depend on the circumstance. The key message is not to rely too heavily on incentivisation as there is a risk of reversal if the incentive is taken away.

Energy performance partnerships, structured in the right way, can help engage, empower and incentivise the teams involved, either through in-house initiatives such as energy crediting (bottom-up tracking of savings linked to people and teams) or structured as part of a wider remit of shared benefits under an energy performance contract.

In practice, our compelling vision needs to include a range of motivators as people and teams often have multi-desires at the same time.

3) Knowledge

To be successful, we need to have the understanding, knowledge and competence that makes the process quick, easy and intuitive for those involved.

Training is about teaching skills, mind-sets and behaviours. Note this

is different to education, although both are often used in workshops. Industry accredited training is useful (and often desirable) for developing the necessary competence and confidence for SEURs and others to become everyday champions for better energy performance.

Pareto, the engineer economist, famously surmised that '80 per cent of the results come from 20 per cent of the effort'. We should look to target the best opportunities to facilitate easier action.

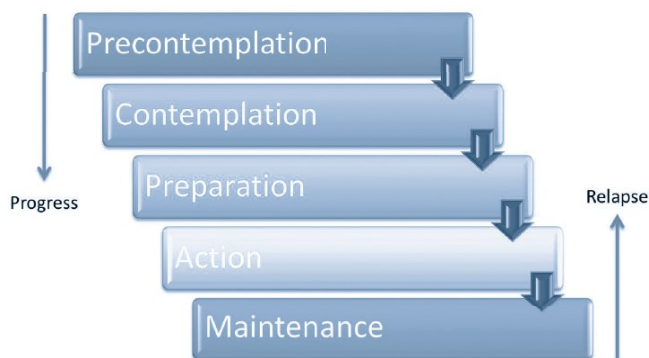
Coaching can be used to help people focus their efforts by understanding the challenges and developing their own solutions. Gamification is another type of training that can help focus on particular skills through iterative experience; instant feedback also draws on competition, recognition and reward opportunities.

Big green events are also used to bring together teams to develop awareness, desire and capability to create the green sparks to kick start change. Motivation here is often about collaboration, making connections and celebrating success.

Heating, ventilating and AC systems are typically the largest energy consumer in most buildings and these systems often run for longer than needed. Using workshop events involving local colleagues, a hospital reviewed the operating times of their HVAC systems. For areas continuously used 24/7, they found they could switch off some of their systems for two or three hours a day without affecting comfort; other systems could be switched off completely. These quick wins meant the hospital quickly saved £83,000 a year in reduced energy consumption (for little investment) and set up the foundations for making more improvements in the future.

4) Ability

After knowledge comes ability to make change. Enablers here are about increasing means and reducing barriers to increase capability or opportunity. Techniques include empowerment, local controls (of equipment), dashboards (to facilitate local control), balanced score cards (to manage priorities) and hands on



support, available as required.

Studies have shown that enablement, building on other interventions, is often a defining factor of the more successful behaviour change programmes, particularly when it promotes enhanced local responsibility, ownership and control.

Energy time incorporated into regular team meetings allows teams to continually develop their own priorities, standard operating procedures (SOPs), etc., to facilitate their ability for action. Suggestion schemes also allow colleagues to offer their own ideas for energy performance improvement.

The mantra 'Just do it' (JDI) is one way of breaking through barriers. This needs to be a managed process: for best results, you need to find the right balance between the 'quick wins' and the more 'desirable but harder' actions; the latter would rely on more sophisticated tools such as a quick action toolkits. These quicken the processes to facilitate the team's ability to respond to opportunities within a credible timeframe.

Building habits enhances ability. The 21/90 rule is one popular method to build new habits: commit to a personal or professional goal for 21 straight days then, once you've established the habit, continue to do it for another 90 days for it to (typically) become a way of life.

Role modelling, or social norms, provide examples for people to aspire to or imitate. This can draw on energy leadership models, case studies, recognition and reward, opinion leaders, etc, to enhance incentivisation (and competition) and create new habits. Role modelling, in this way, is shown to be an effective technique by studies.

Design interventions (also known as environmental restructuring) aim to alter the physical or social context to facilitate ability. This may involve, for example, relocating equipment for easier local control, use of electronic feedback devices, apps, etc.

A restaurant re-fit design, for example, included smaller, more efficient modular equipment in the kitchen, i.e. multiple toasters, fryers, dishwashers, etc. This enabled the team to switch it all on and off more



easily using fire-up schedules; for example, more toasters are now switch off earlier and fryers are held off until lunchtime. In operation, the resulting restaurant is now consuming half the energy compared to the equivalent previous design solution (set as the energy baseline).

Smart phone or web apps can offer support for everyday champions to deliver action at scale. They tap into social networking to connect people; though take care when using in-house only systems as they can alienate the external members of the team. Electronic feedback systems need to be carefully managed as studies show their effectiveness can often diminish over time.

Automation technologies and controls also have great potential for energy saving. Traditionally they are considered to be 'tech only' solutions. However, in practice, these rely on a social and behavioural context as well. Negotiation with and acceptance of new technologies by colleagues should be a fundamental part of any (continuous) commissioning process; if done well, this can often create enhanced energy savings for the organisation longer-term.

5) Reinforcement

Albert Einstein reportedly used a wonderful simile: "Life is like riding a bicycle; to keep your balance you must keep moving".

This is the philosophy the quality pioneer Walter Shewhart used as the mind-set for continuous improvement, encouraging a constant state of driving process improvements to be a way of life.

Continual improvement is the more practical, slightly differing, notion focused on driving improvement over periods of time, with intervals of interruption; this is used as the basis of the Deming's development of the Plan-Do-Check-Act iterative cycle on which all our management systems are now based.

ISO 50001, the energy management systems standard, is often the secret to locking in energy improvements longer term. In practice, continual improvement here means periodically reinforcing our gains and behaviours as well as being alert for new (cost-effective) opportunities as they arise.

On each iteration, energy reviews are used to take the time to understand reality, where to focus our efforts and redefine the core objectives, targets and action plans.

Operational controls, design standards and procurement processes set out the restrictors to ensure target behaviours are achieved by reducing the opportunity for other behaviours. Psychologists tell us it is usually better to tell people what to do, rather than what not to do.

Monitoring and targeting, internal audits and management reviews provide the preventative maintenance processes to help reinforce behaviours as well as ensuring we identify opportunities and problems quickly enough to maintain the right momentum; these may use aM&T, dashboards, checklists, trackers, apps, and other such techniques.

Einstein also said “A person who has never made a mistake has never

tried anything new”.

Continual learning, innovation and leadership can also be a key ingredient for developing and sustaining the momentum we need. This often means developing a culture of action-based learning and continuously developing skills and performance with a clear line of sight on the bigger picture.

We are learning all the time which interventions bring the best results. Studies have shown that developing social and physical enablers, particularly involving enhanced local responsibility/ownership and control, is often one of the most effective ways to deliver change.

We can gain mastery by learning from our experiences and developing confidence and resilience, often through perseverance. Making connections with others is a way of drawing on new ideas through, for example, industry networks, clubs and collaborative projects.

Whatever techniques you use, the basic principles of people solutions do not change: it needs to be desirable, focused, easy, continual, but most importantly it needs to be owned by the people involved.

Behaviour change is not rocket science but it is hard work. You need your own blend of leadership and management that comes from a combination of good understanding, strategic thinking and a hands-on approach. You will know what works best for your organisation.

Further reading

- **Energy management systems – Requirements with guidance for use, BS EN ISO 50001:2018**
- **Another brick in the wall, Talking Heads, by Michael McGowan, *Energy in Buildings and Industry Magazine*, September 2018**
- **Selling energy savings, retail article by James Brittain, *Energy in Buildings and Industry*, October 2017**
- **Behaviour change for low-cost energy savings, by James Brittain, CPD module 02, Series 14, *Energy in Buildings and Industry Magazine*, June 2016**
- **Intervening to change behaviour and save energy in the workplace: a systematic review of available evidence, by S. Staddon, C, Cyclic, M. Goulden, C Lyeuge, and A. Spence, *Energy Research & Social Science* 17 (2016), Elsevier.**
- **Ten steps to change, by John Mulholland, *Energy in Buildings and Industry Magazine*, July/August 2014.**



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ENTRY FORM

BEHAVIOUR CHANGE

Please mark your answers on the sheet below by placing a cross in the box next to the correct answer. Only mark one box for each question. You may find it helpful to mark the answers in pencil first before filling in the final answers in ink. Once you have completed the answer sheet in ink, return it to the address below. Photocopies are acceptable.

QUESTIONS

1 When would behaviour measures for energy savings normally be prioritised, in line with the Energy Hierarchy?

- ☐ Before investments in clean technology and renewable energy sources
- ☐ After investments in clean technology and renewable energy sources
- ☐ After investments in clean technology but before investments in renewable energy sources
- ☐ After investments in renewable energy sources but before investment in clean technologies

2 According to Critical Mass Theory, what percentage of a population do we need to (typically) engage to reach a tipping point?

- ☐ 1% ☐ 2 to 5% ☐ 10 to 20% ☐ >50%

3 Which of the following is not one of John Adair's three fundamental objectives within his action-centred leadership model?

- ☐ Defining the task
- ☐ Developing the opportunity
- ☐ Creating the group
- ☐ Meeting the needs of the individuals

4 What does 'SEUR' stand for?

- ☐ Significant energy undertaking
- ☐ Small energy user
- ☐ Significant energy user
- ☐ Scalable energy undertaking

5 Who are not generally considered to be significant energy users?

- ☐ Top management
- ☐ Operations staff
- ☐ Everyday energy champions
- ☐ Everyone

6 What is the acronym used by Prosci's behaviour change model?

- ☐ DAKAR
- ☐ ADKAR
- ☐ KARAD
- ☐ ADRKA

7 Who are the people we need to engage to raise awareness across an organisation?

- ☐ Top management
- ☐ Operations staff
- ☐ Everyday champions
- ☐ Everyone

8 According to Maslow's Hierarchy of Needs, which of these co-benefits would satisfy the highest level of Need?

- ☐ More comfortable working conditions, e.g. when energy efficient equipment is introduced into commercial kitchens
- ☐ New experiences and fulfilment e.g. challenge to be as energy efficient as possible
- ☐ Improved fitness e.g. from riding a bicycle into work
- ☐ Better skills and performance e.g. from training everyday champions

9 Which of these describes the activity of training?

- ☐ Imparting knowledge and understanding
- ☐ Focus efforts for greatest results
- ☐ Teaching a person particular skills, mind-sets and/or types of behaviour
- ☐ Continual learning, innovation and leadership

10 According to the 21/90 rule, how long does it take to (typically) build a new habit?

- ☐ 21 days
- ☐ 69 days
- ☐ 90 days
- ☐ 111 days

Please complete your details below in block capitals

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