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CAMBODIA ENERGY
EFFICIENCY COMPETITION



CEE COMP QUARTERLY BRIEF N°2

BEHAVIOR CHANGE STRATEGY

This second CEE Comp quarterly brief describes the strategy used by CEE Comp to implement behavior change within the energy efficiency competition. The most common definition of behavior change will be presented to understand how this technique could be used and to achieve which objectives. Deepening into CEE Comp, the implementation of behavior change to energy efficiency through gamification will be discussed, presenting the main measures proposed, the communication tools used to raise awareness and some best practices adopted by the candidates.

The Cambodia Energy Efficiency Competition is an innovative competition between commercial buildings seeking to boost energy efficiency by addressing behavior change.

This project is inspired by the CUBE competition, a French competition based on the same principle, that has successfully completed 5 editions.

CEE Comp is funded by the Cambodia Climate Change Alliance, who is itself funded by the European Union, Sweden and UNDP. The competition is also sponsored by Schneider Electric.

The first edition of the CEE comp between private buildings started in September 2021 with 22 buildings from 14 well-known companies. For one year, they aim to save as much energy as possible by implementing behavior change and improving equipment management.



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ACTION FOR MARKET TRANSFORMATION



WHAT IS BEHAVIOR CHANGE?

STATE OF CHANGE MODEL

Behavior change, known as the practice of changing people's behaviour, has been defined by various model. The one defined in the late 1970s by the researchers Prochaska and DiClemente, called State of Change model, explains that change occurs gradually and relapses are an inevitable part of the process. People are often unwilling or resistant to change during the early stages, but they eventually develop a proactive and committed approach to changing a behavior. This model acknowledges that change is often not easy, and often requires a gradual progression of small steps toward a goal.



RELAPSING IS OKAY

Relapsing is not a failure: it is part of the path to succeed in your behavior change. You need to find out the reasons for your relapse and real motivators to prevent it from happening again

The first stage of change is *precontemplation*: people do not consider changing their behavior, they either think their behavior is not a problem or they do not believe they are able to change. At the *contemplation* stage, the person starts to think about changing his behavior, but he/she is concerned about all the difficulties and disadvantages. This may let him stuck in that stage for a long time. *Preparation* is planning and thinking about all the steps to succeed: in this phase the person may ask for help. After taking *action*, the most difficult stage is *maintenance*: he/she must keep all the new behaviors, without relapsing, to succeed.

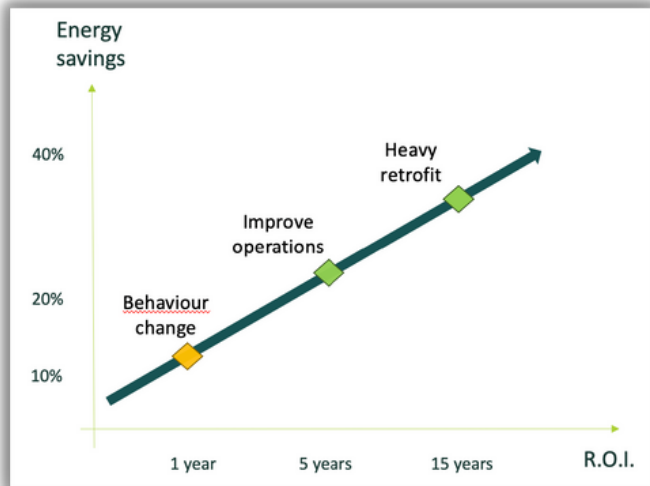


RELEVANCE

Behaviour change can be the hardest part of an initiative, but it is also the most crucial aspect and bears tremendous potential for change, especially in the long-term. Human behaviors play a key role in the many complex sustainability and development problems, therefore being aware of their importance and acting to change them may lead to better and shared solutions of a given issue.

BEHAVIOR CHANGE APPLIED TO ENERGY EFFICIENCY

Changing behaviour is considered to be the most cost-effective way to reduce energy consumption



By changing behaviour alone, without significant investment required, a company can save up to 15-20% of its energy costs in a very short time compared to technical operations and heavy retrofits.



EXAMPLES OF SAVINGS MEASURES

MEASURES RELATED TO AIR CONDITIONING

Manage AC unit better

- Never set the temperature below 20°C
- Gradually increase the set point temperature to reach the target of 25°C or above if using fans in addition
- Implement regularly the AC maintenance protocol

Prefer natural ventilation and fans over AC

- Combine AC and fans, if AC is still needed
- During cooler days, early mornings & evenings, try to switch off the AC and open windows to favour airstream

MEASURES RELATED TO LIGHTING

Identify unneeded lights

- Switch off unnecessary lights
- Maximise natural light
- Unplug unnecessary lamps
- Clean the lamps
- Open curtains if the sunrays do not enter directly in the room

Change your lighting system

- Replace the old and high consuming lights by LED lights
- Install sensors of presence

MEASURES RELATED TO ANY DEVICE

Avoid the stand-by mode

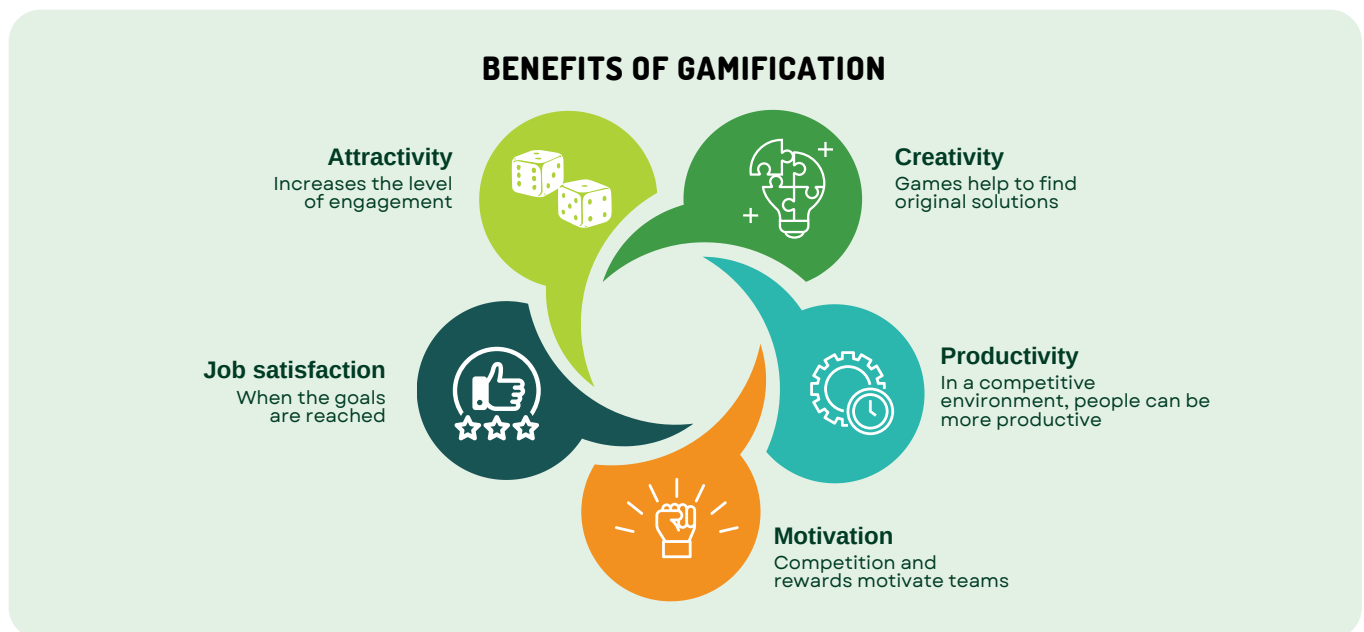
- Turn off the appliance and unplug the appliances when not used

CEE COMP STRATEGY: USING GAMIFICATION

Gamification is using game elements to make non-games more enjoyable

One of the most powerful strategies for behavior change is gamification because it generates engagement and motivation, as well as favour learning and taking initiative. CEE Comp uses the principle of gamification in the form of competition, which is both a fun and stimulating way to take action to save energy. It allows everyone to connect, and to give their best to win.

In the field of energy efficiency, gamification has already proven itself internationally, for example with the Energy Star initiatives in the United States, or with the French CUBE competition, which has already showed energy reductions of up to 55% (source: rics.org)



PLAYING ON MOTIVATIONS

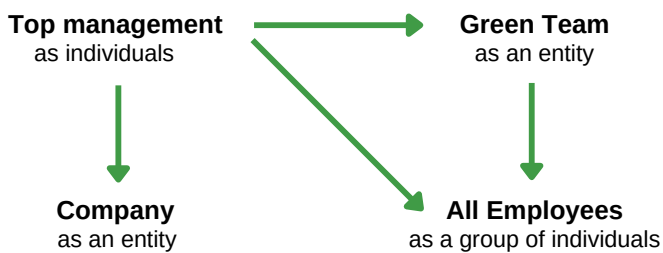
In addition to the fun aspect of the game, there are other elements that can motivate a company's employees to improve their habits. For instance, in the context of energy efficiency, or other sustainable causes, acting for the environment can be a powerful argument. In addition, getting involved in the project could help them gain recognition from their superiors and colleagues, so they can gain influence and responsibility. Overall, motivations can vary from one person to another, so it is important to take the time to identify them.



CEE COMP STRATEGY: INTERNAL MANAGEMENT

To achieve the goal of saving energy during the competition, the whole company should be committed and involved, acting as a unique entity. Since CEE Comp team cannot directly interact with the entire company, a motivated team was established (called Green Team, with a Project Manager leading it), in charge of interacting directly with the Top Management and the employees.

THE INTERNAL ORGANIZATION



THE GREEN TEAM

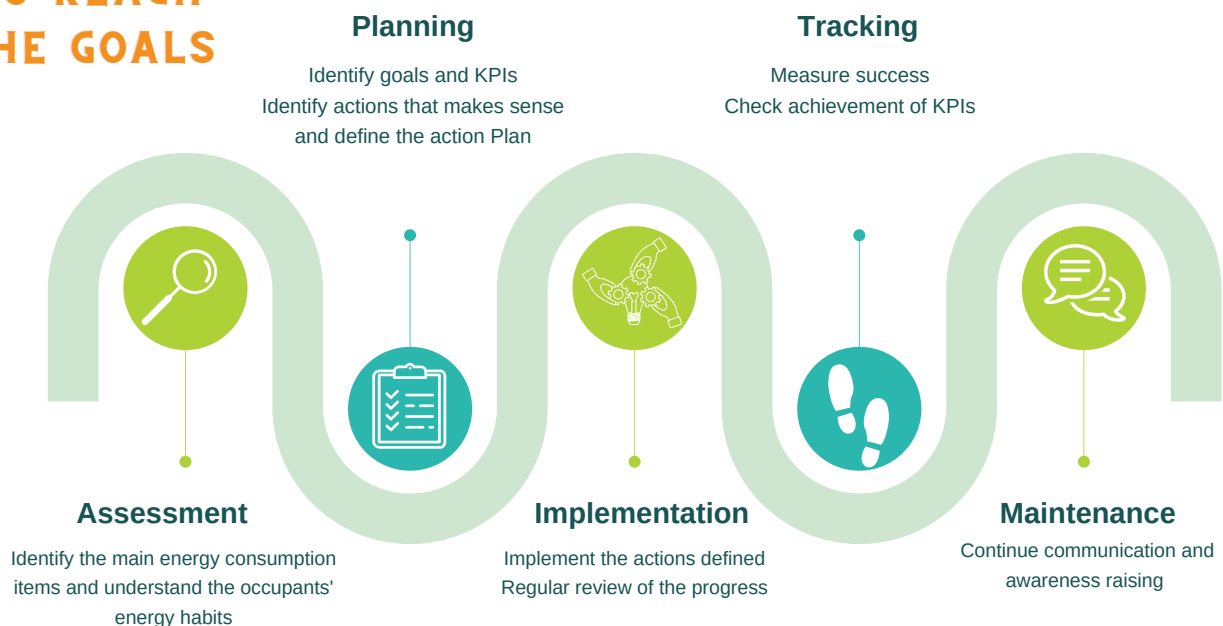


Skills of a good Green Team:

- Has the power & ability to motivate people;
- Include staff from different departments;
- Has time to dedicate to the competition;
- Is motivated and personally committed.

The Green Team has an important role to play: it is involved in defining goals and realistic actions to put in place and then, implementing them. The Green Team is also in charge of internal communication to encourage the occupants, keep the motivation high and remind them the efforts needed to achieve the goals.

5 STEPS TO REACH THE GOALS



Planning

Identify goals and KPIs
Identify actions that makes sense
and define the action Plan

Tracking

Measure success
Check achievement of KPIs

Assessment

Identify the main energy consumption
items and understand the occupants'
energy habits

Implementation

Implement the actions defined
Regular review of the progress

Maintenance

Continue communication and
awareness raising

CEE COMP STRATEGY: TOOLS TO RAISE AWARENESS

Communication is a tool to promote changes in knowledge, attitude, norms, beliefs and thus behaviors by using a direct approach.

CEE Comp Team provided to the candidates multiple elements to help them to raise awareness among their employees.



WHAT KIND OF MATERIALS CAN BE USED ?

The objective is that each green team defines what are the most effective means of communication for their company. They are advised to implement their own ideas in order to have the most impact on the occupants. The Comp CEE team remains in support to give suggestions.



WHAT TOOLS DOES CEE COMP TEAM PROVIDE ?

At the beginning of the competition, CEE Comp provides candidates with useful resources:

- A master document to help the green team manage the competition internally and containing advice on behavior change
- Presentations on the energy context in Cambodia and energy efficiency tips
- A communication kit with posters and stickers

During the competition, several meetings took place, including:

- Two technical training sessions on energy efficiency
- Three candidate meetings including workshops to encourage experience sharing

Finally, on a monthly basis, candidates benefit from:

- A meeting to follow their progress and provide advice
- A newsletter announcing the intermediate ranking and containing articles on energy efficiency that they can share to the staff



WHAT HAVE THE CANDIDATES DONE?

Many candidates were really creative in their communication tools and actions, trying to have a powerful impact on their occupants.

POSTERS AND STICKERS

Posters and stickers are easy to create, cheap, and very effective, especially when located in strategic places where many people can see them. A stunning design and a clear text are necessary to have an immediate impact.

These designs can help to easily remind the energy efficiency measures that everyone could put in place, for instance turning off a device, closing the curtains to avoid heating, being aware of the temperature of AC.

As an example, a poster with the suggested AC temperatures could be a good tip.



WORKSHOPS



Workshops are another way to raise awareness, to identify areas for improvement, open the discussion and listen to others' ideas.

The subjects to discuss can be diversified, here are some of the topics that the candidates addressed: Talks about energy, energy waste, the importance of energy efficiency, tips to save energy at home or work

TRAINING SESSIONS

Training sessions addressing the employees help to increase the knowledge about energy efficiency, explain the impact of our electricity consumption on the planet and the benefits of implementing energy efficiency.

WHAT HAVE THE CANDIDATES DONE?

INTERNAL COMMUNICATION

SURVEYS

Involving the staff by asking them to fill surveys can be another good way to track the current behaviors and monitor the improvements. It is useful also to collect feedbacks and suggestions about the ongoing activities. Surveys help to know why people have some habits and why it is difficult for them to change, thus to get a tailored follow-up.



INTERNAL COMMUNICATION

Internal communication in a company can be a powerful tool because it is directly addressed to the employees, who may feel more concerned about the subject if the message is sent by their superior. For instance a post on the internal channel, sharing a memo, an email with the good practices, a numeric pocket book, etc.



ADDITIONAL EFFORT DONE BY THE CEE COMP TEAM

ARTICLES & SOCIAL MEDIA



To raise the interest of general public on CEE Comp, the team has published on press, media and social network various articles and posts describing the challenge and mentioning the experience of the companies and their feedbacks. Articles are accessible to any citizens, the impact is wider and can open mind to people not directly aware of the project. Each citizen will have the opportunity to, indirectly, compare himself and his habits to the energy efficiency measures suggested, and maybe question himself.

CANDIDATES' FEEDBACKS ABOUT BEHAVIOR CHANGE

In May 2022, the candidates were asked to answer an intermediate satisfactory survey concerning the main measures they have implemented, the processes they followed, the degree of difficulty of the actions, how they tried to raise awareness among their employee and their feedbacks about raising awareness. Here are some of the main issues raised by the candidates.



The most difficult part in this challenge is to change the mindset of employees concerning energy issues

Changing people habits is difficult

We need more time to educate our employees to change their mindset and start saving the energy for future generation.

Team briefing, visuals about energy efficiency and spread good practices helped to change behaviors

Staff were interested at first but it was difficult to maintain consistency in their commitment

Door to door awareness raising is necessary