

Top Energy Savers: game

The aim of the Top Energy Savers game is to educate people about the costs and benefits of different types of energy saving and generating improvements.

Top Energy Savers is an energy-based 'top trumps' style card game. You can use this game at a community engagement event or workshop to get people in your community interested, introduce them to some energy efficiency measures, and give them a better understanding of the costs, benefits and the savings that they could make by improving their homes.

The cards contain statistics on the average disruption and cost needed to install each improvement and the potential annual financial savings on energy bills as a result. The figures on these cards are based on the expected average savings for a semi-detached house heated with mains gas. The only instance where these savings are assumed differently is for air and ground source heat pumps which are based on replacing oil as the main heating fuel.

There is a more advanced version of this game available on request, which is more suitable for playing within your group or at a training event for energy advisors. The advanced cards are more technical, containing information about the average cost, bill savings, carbon dioxide (CO₂) savings and Standard Assessment Procedure (SAP) increases to be expected from installing each improvement, with different figures for the type of heating fuel used and the type of house they're being installed into. Get in touch at planlocal@cse.org.uk if you'd like these.

The Energy Saving Scenarios game goes alongside the first game. The goal is to work out the best improvements for each scenario, based on the stats about energy efficiency improvements listed on the Top Energy Savers cards. This game will be especially useful as training for groups who want to give Green Deal and home energy improvement advice directly to householders.

Top Energy Savers instructions

Materials needed: Set of Top Energy Savers cards – either basic or advanced

Number of players: 2-4 players (aged 14+)

- The goal of this game is to 'trump' the other players by playing energy efficiency improvement cards that have a higher – or lower – value than the rest.
- The cards are dealt out among the players and are held by each player in a pile so that only the topmost card is visible.
- The starting player then chooses a category from their topmost card and calls out the category that everyone will compare.
- For the basic cards these categories are: Annual bill savings, average disruption and average cost.

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- With the advanced cards the starting player needs to choose fuel type, the type of housing, and whether they are playing bill savings, CO2 savings or SAP increase – e.g. 'oil, mid-terraced, annual bill savings'. Average cost and disruption are not included with these cards.
- The starting player also decides whether they are going to play high or low for the round – i.e. whether the highest value or the lowest value number (best or worst improvement) will win the trick – and tells the other players. The player doesn't yet reveal their own value from that category.
- Going clockwise, the players take it in turns to call out the value of the category from their top card.
- The player who started then reveals their own card's value.
- The player with the highest or lowest value on their card wins the round and takes all cards used in that round, including their own, and puts them at the bottom of their pile.
- The winning player then looks at their topmost card, and chooses the category for the next round.
- If a player has a N/A value on their card then they do not participate in that round of play and wait until the next category is called.
- In the event of a draw, the cards from that round are placed in a pile in the centre and a new category is chosen by the same player from the next card in their pile. The winner of the round gets to pick up all the cards in the centre as well as the cards from that round.
- The winner is the player who obtains either the whole pack of cards, or the most cards after an agreed amount of time.

Energy saving scenarios

Materials needed: Set of Top Energy Savers cards; set of home energy scenario cards.

Number of players: 2 – 8

- The aim of this training is to enable players to learn about the different Green Deal home energy improvements that would be suitable in a variety of realistic household situations. It will be of particular use to inform groups who will be giving Green Deal advice or making recommendations directly to householders.
- The advanced Top Energy Savers cards are laid out on the table so that they are visible to all of the players.
- The players take it in turns to answer the questions listed on the scenario cards using the Top Energy Saver cards for guidance. Each scenario card has a home energy scenario displayed on one side and the correct answers on the other side of the card.
- If the group wants to make the training session more challenging, you could play this game without consulting the Top Energy Saver cards.

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- If you wanted to turn this training exercise into more of a competition or a game, you could invent a scoring system. e.g. one point for each correct answer.

Internal solid wall insulation



Annual bill savings	£174
Average disruption	✂✂✂✂✂
Average cost	£7,931

External solid wall insulation



Annual bill savings	£239
Average disruption	✂✂✂✂✂
Average cost	£14,275

Cavity wall insulation



Annual bill savings	£158
Average disruption	✂✂✂
Average cost	£429

Full loft insulation



Annual bill savings	£177
Average disruption	✂✂✂
Average cost	£286

Top-up loft insulation



Annual bill savings	£10
Average disruption	✂✂
Average cost	£239

Heating upgrade
(gas boiler)

Annual bill savings	£388
Average disruption	✂✂✂
Average cost	£2,571

Heating upgrade
(night storage heaters)

Annual bill savings	£310
Average disruption	✂✂✂
Average cost	£2,500

Heating upgrade
(oil fired boiler)

Annual bill savings	£535
Average disruption	✂✂✂
Average cost	£4,657

Double glazing



Annual bill savings	£67
Average disruption	✂✂✂
Average cost	£6,040

Draught-proofing



Annual bill savings	£16
Average disruption	✂
Average cost	£120

Hot water tank jacket



Annual bill savings	£72
Average disruption	✂
Average cost	£70

Heating controls (TRVs)



Annual bill savings	£45
Average disruption	✂
Average cost	£337

Floor insulation



Annual bill savings	£29
Average disruption	✂✂✂✂
Average cost	£612

Air source heat pump



Annual bill savings	£223
Average disruption	✂✂✂✂
Average cost	£8,806

Ground source heat pump



Annual bill savings	£538
Average disruption	✂✂✂✂✂
Average cost	£10,674

Solar hot water



Annual bill savings	£101
Average disruption	✂✂
Average cost	£4,879

Solar PV 2kW



Annual bill savings	£229
Average disruption	✂✂
Average cost	£4,800

Microwind 1kW



Annual bill savings	£166
Average disruption	✂✂
Average cost	£2,823

Biomass boiler



Annual bill savings	£73
Average disruption	✂✂✂✂
Average cost	£8,685