


OVERCONSUMPTION

CUTTING ENERGY COMES HOME



Re  **set**

**lessons from
lockdown**

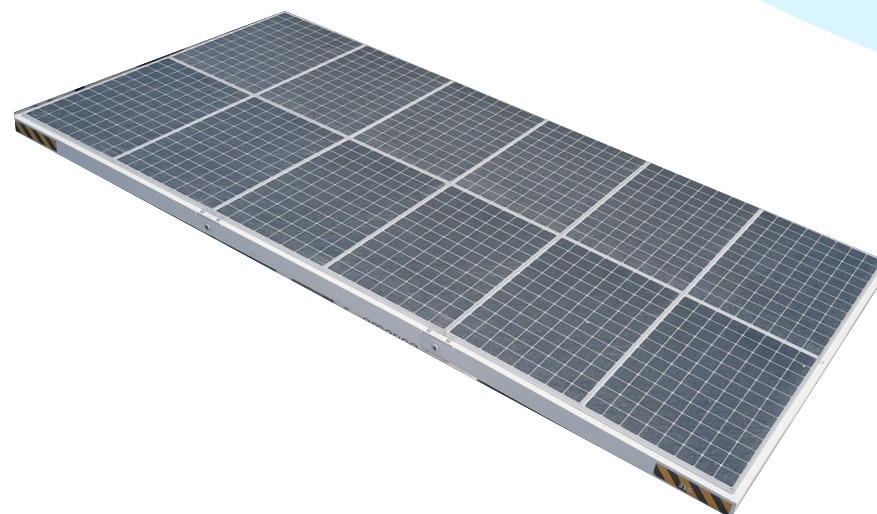
CUTTING ENERGY COMES HOME



How more time at home created awareness and opportunity to reduce our energy use

The concept of trying to reduce our energy footprint took root strongly during the pandemic as people stranded at home saw their energy use and bills soar – and **started to think about taking action**¹ to reduce them. Reducing energy use, both at the individual and societal levels is of paramount importance in our struggle to keep global warming within the 1.5 degrees limit of the Paris Agreement. Both systemic and individual change will need to play a role here. Although the consumption of food and other goods and services need to be addressed, as shown in the groundbreaking **Hot or Cool report**,² most of our direct energy use is in home and water heating, and transport and travel, all of which were profoundly affected by changes during the pandemic.

During the lockdowns, many people became acutely aware of their own space and its energy performance, particularly if working from home and needing to heat their homes all day. Many re-learned the old lessons of **turning down the heating**,³ wearing more layers of clothing, checking insulation and – for those who could afford it – switching to renewables for heating, lighting and even transport fuel. Price hikes as a result of the war in Ukraine have since compounded this and give us even more reason to look for some “evidence-based hope” for **rapid transition**⁴ to a lower energy footprint. The good news was that **wind and solar installations**⁵ continued to increase throughout the pandemic period according to the International Energy Agency (IEA) and governments worldwide have earmarked over US\$710 billion for the **largest ever clean energy recovery effort**⁶ – 40% higher than what was spent to rescue economies from the last global financial crisis. A growing awareness of our need for rapid transition away from fossil fuels has also resulted in the emergence of new community energy schemes.



In London's Waltham Forest, during the pandemic, a whole street of terraced Victorian houses with leaky windows and poor insulation started to work together as a community to make itself into a local power station. Run by two artists living on the street, the **Power project**⁷ aims to sell locally made art in the form of “banknotes” and to use the proceeds to fund solar panels and other local schemes such as food banks that address inequality. Building on the idea of the US New Deal of the 1930s, when artists played a leading role, the project plans to make its own local Green New Deal through shared learning, training and employment across film and art, green technology and sustainable construction.

“During the pandemic people stuck at home really noticed their energy use and their bills shooting up. Insulation and retrofitting can help, but wouldn't it be better for everyone to have renewable energy? POWER grew out of pandemic mutual aid networks, and is all about community owned energy and energy infrastructure – literally taking and making power for ourselves.”

Dan Edelstyn, Power Project



With many former commuters continuing to **work from home**⁸ as an enduring legacy of the pandemic, and with millions of people now grappling with soaring fuel prices, **community energy**⁹ seems to offer a great alternative when widespread national policies are lacking in speed and scale. Some countries are already advanced in this area, including Germany, which has over **1,000 cooperative**¹⁰ energy projects selling energy directly to third parties, and Denmark where the “right to invest” principle requires project developers to give local residents priority when financing a community energy scheme.

In the UK, the climate protest movement Extinction Rebellion’s offshoot “**Insulate Britain**”¹¹ drew attention to this often overlooked and low-tech intervention. Effective home insulation is particularly key in countries with older, poorly insulated housing stock, such as the UK and many Eastern European nations. Government agencies and NGOs are once again publishing **lists**¹² of ways to save energy, from using natural light to changing filters in air conditioners, installing **LED bulbs**¹³ and using **smart meters**¹⁴ to make sure usage only happens when it’s really needed. Although smart meters do not necessarily reduce usage per se, they use visual displays to remind people of their energy use in real time and are therefore thought to encourage energy-saving behaviour. They also help energy companies to balance out times of high and low demand on the grid so they can make the most of the natural fluctuations of renewable energy from the sun and wind. Houses today have large numbers of electrical appliances, many permanently plugged into wifi networks, so turning off plugs at the wall is becoming common practice once again.

A UK poll¹⁵ found that 73% of people asked had made changes at home in an attempt to reduce bills, including only filling the kettle with the amount needed (50%), improving their home’s insulation (37%) and turning the TV off at the plug when not in use (34%). One energy supplier to Southern California advocated using nature to your advantage, opening curtains and blinds to let in sunlight or a window to allow warmer air to enter the house when it’s sunny and pulling down shades or opening a window to **let in cool air instead of relying on an air conditioner**.¹⁶ These principles may seem obvious – and are used in sustainable design to reduce energy loads – but many people are accustomed to using energy-driven heating and cooling to change temperatures at home, and most houses are not built to benefit from passive solar energy gain. In wealthier countries many people also have unused rooms in their homes that are still heated or cooled, wasting energy.

Increasing numbers of people turned to **heat pump technology**¹⁷ as a potential replacement for gas and oil boilers, and by 2020 almost **180 million heat pumps**¹⁸ were in use globally for heating – an increase of nearly 10% per year over the previous 5 years. Heat pumps became the most common technology in newly built houses in many countries. In the United States, for example, the share of heat pump sales for newly constructed buildings exceeded 40% for single-family dwellings and was near 50% for new multi-family buildings. However, current heat pump installations still only meet **7% of global building heating demand**¹⁹ although they could easily supply more than 90% of global space and water heating at a lower CO2 emissions level. In Finland, for example, where heat pumps have proven popular and grown in dominance, the amount of energy used by households for heating **has declined accordingly by roughly 15%**²⁰ since 2000.

The growth of new technologies and the phasing out of fossil fuel reliant products such as gas boilers, means there is an opportunity for increased investment in training for a new range of greener jobs. In Spain, trade unions have suggested that energy efficiency renovations **could make enough work for nearly half a million citizens**.²¹ In the UK, an ambitious retrofitting programme **could create 138,000 jobs over the next ten years**.²²

Electric vehicle sales soared during the pandemic, despite the economic shrinkage and transport restrictions. The shift to electric cars and vans, particularly when accompanied by renewable electricity generation and local battery storage, is preferable to the combustion engine but not the answer to zero carbon transport at scale and speed. Breakthroughs in enabling car batteries to be used as **storage for the grid**²³ are ongoing and trials are currently underway in the UK. More **sustainable batteries**²⁴ are also on the cards, reducing our dependence on minerals such as lithium that are often mined under poor environmental and working conditions. However, the pandemic also saw a flowering of **other kinds of use of electric vehicles**,²⁵ such as scooters, e-bikes, **cargo bikes**,²⁶ and of car sharing as a norm. These types of mobility are expected to **continue to grow**²⁷ and to contribute – alongside improved public transport systems – to reducing our use of fossil fuels.



Those unable to invest in a cleaner mode of transport are reliant on public transport cleaning up its act and also on local infrastructure enabling **cycling and walking**,²⁸ plus opening up some streets for **better public use**.²⁹ Cities from Milan to Mexico City and Mumbai took **steps to advance**³⁰ active transportation, build new bike lanes and create “**the 15-minute city**”.³¹ Improved, **free**³² or cheaper and more accessible public transport was tried in various places across the world during the pandemic. For example, **Luxembourg**³³ made public transport free, Sydney, Australia ran **trials**,³⁴ and **Estonia**³⁵ made it free for residents. There were many drivers behind these policies, but clean air is what people noticed; in a survey, **around two thirds of Europeans said**³⁶ they did not want to return to pre-pandemic levels of air pollution.

Going forward, the pandemic has brought back into the public eye a whole slew of practices that could contribute toward a low carbon and more sustainable future. Nowhere are these perhaps more important than in the hard-to-change areas of energy for housing and transport. This is where policy change, systems design and individual behaviour needs to come together to enable the rapid transition that everybody needs.



REFERENCES

1. Energy Saving Trust

<https://energysavingtrust.org.uk/report/how-has-covid-19-affected-peoples-attitudes-to-home-energy-in-scotland/?loc=england>

2. Hot Or Cool

<https://hotorcool.org/1-5-degree-lifestyles-report/>

3. Money Saving Expert

<https://www.moneysavingexpert.com/utilities/energy-saving-tips/>

4. Rapid Transition Alliance

<https://www.rapidtransition.org/commentaries/an-alternative-energy-strategy/>

5. IEA

<https://www.iea.org/topics/covid-19>

6 IEA

<https://www.iea.org/reports/sustainable-recovery-tracker/key-findings>

7. Power

<https://www.power.film/power-people>

8. NL Times

<https://nltimes.nl/2022/03/30/public-transit-commuters-likely-want-work-home/>

9. Rapid Transition Alliance

<https://www.rapidtransition.org/stories/reclaiming-power-the-rapid-rise-of-community-renewable-energy-why-the-added-benefits-of-local-clear-power-can-help-accelerate-transition/>

10. The Guardian

<https://www.theguardian.com/public-leaders-network/2015/oct/02/energy-cooperatives-uk-germany-denmark-community>

11. BBC News

<https://www.bbc.co.uk/news/uk-58916326>

12. Energy Sage

<https://www.energysage.com/energy-efficiency/101/ways-to-save-energy/>

13. Rapid Transition Alliance

<https://www.rapidtransition.org/stories/the-lightbulb-moment-the-rapid-shift-to-leds-and-ultra-efficient-lighting/>

14. Smart Energy GB

<https://www.smartenergygb.org/smart-living/energy-saving-tips/super-smart-energy-savers>

15. MSN

<https://www.msn.com/en-gb/money/technology/millions-of-people-have-changed-their-home-habits-to-save-on-energy-bills/ar-AAWaHj0>

16. Family Handy Man

<https://www.familyhandyman.com/list/13-ways-to-keep-your-home-cool-without-an-air-conditioner/>

17. Rapid Transition Alliance

<https://www.rapidtransition.org/stories/goodbye-gas-making-the-global-leap-to-heat-pumps/>

18. IEA

<https://www.iea.org/reports/heat-pumps>

19. IEA

<https://www.iea.org/reports/heat-pumps>

20. Rapid Transition Alliance

<https://www.rapidtransition.org/stories/peer-to-peer-support-and-rapid-transitions-how-finland-found-an-answer-to-heating-homes/>

21. Feantsa

https://www.feantsa.org/public/user/Resources/reports/Targeting_Energy_Efficiency_Renovation_Report.pdf

22. Feantsa

https://www.feantsa.org/public/user/Resources/reports/Targeting_Energy_Efficiency_Renovation_Report.pdf

23. Motors

<https://news.motors.co.uk/national-grid-trials-scheme-that-could-pay-you-to-drain-power-from-your-ev/>

24. Duck Duck Go

<https://duckduckgo.com/?q=just+have+a+thikn&t=osx&iax=videos&ia=videos>

25. Rapid Transition Alliance

<https://www.rapidtransition.org/resources/the-shifting-terrain-of-urban-mobility/>

26. Rapid Transition Alliance

<https://www.rapidtransition.org/resources/cargo-bikes/>

27. Accenture

https://www.accenture.com/_acnmedia/PDF-143/Accenture-Electric-Vehicle-PoV-2021.pdf

REFERENCES CONTINUED

28. Rapid Transition Alliance

<https://www.rapidtransition.org/resources/getting-on-your-bike/>

29. Rapid Transition Alliance

<https://www.rapidtransition.org/resources/glimpsing-a-different-kind-of-streetscape/>

30. World Economic Forum

<https://www.weforum.org/agenda/2020/09/covid19-coronavirus-sustainable-development-cycling>

31. The Guardian

<https://www.theguardian.com/world/2020/feb/07/paris-mayor-unveils-15-minute-city-plan-in-re-election-campaign>

32. Free Public Transport

<https://freepublictransport.info>

33. The Guardian

<https://www.theguardian.com/world/2020/feb/28/luxembourg-public-transport-free-nationwide-congestion>

34. ABC News

<https://www.abc.net.au/news/2022-03-27/sydney-commuters-free-transport-12-days-over-easter/100942590>

35. We Forum

<https://www.weforum.org/agenda/2018/06/estonia-is-making-public-transport-free>

36. Epha

<https://epha.org/no-going-back-to-pre-covid-air-pollution-levels-opinion-poll-finds/>

Re→set

lessons from lockdown

This guide has been made possible by the support of ClimateWorks Foundation – climateworks.org – and is published by the Rapid Transition Alliance – rapidtransition.org – where you can find many of these examples explored in more detail.

rapidtransition.org

@RapidTransition