

# *Energy Transition: Regaining the Momentum*

Developing product offerings to reach the mainstream consumer

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# Foreword

This series of three whitepapers examines the recent slowdown in the energy transition over the past 18 months and outlines how the market can position itself to regaining the positive momentum to reach the mainstream consumer market.

## Paper 1

Explores the market slowdown across three consumer-facing technologies. It presents an analysis of the scale and impact of the slowdown, explores the key reasons behind its depth and offers a perspective on emerging opportunities that brings reason for optimism.

## Paper 2

Considers the consumer journey, addressing how businesses can design compelling product offerings and how governments can establish effective policy frameworks to drive adoption among mainstream consumers.

## Paper 3

Focuses on the financial investments necessary to support a robust recovery, both at the business and consumer levels. It outlines the funding required to ensure the energy transition sector regains its momentum and successfully integrates into the mainstream market.

Each of these papers draws on extensive research and data analysis conducted by LCP Delta's expert teams, covering areas such as **Decarbonisation of Heat, EV Charging, New Energy Strategies** and **Solar & Battery**. Papers 2 and 3 also highlight the range of services that LCP Delta provides, from research to consulting, that facilitate our clients with their ambitions to reach the mainstream market.



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# Executive Summary

Developing products to reach the mainstream consumer

## Barriers to reaching mainstream consumers

In this series, we explore three key barriers that must be overcome to gain the momentum needed to reach mainstream consumers.

**Psychological barriers:** This paper focuses on two key psychological barriers:

- **Preference for the status quo:** Consumers tend to resist change and stick with familiar choices.
- **Preference for immediate gains over larger, delayed benefits:** Many consumers prioritise short-term rewards over larger long-term advantages.

**Financial barriers:** Covered in the third paper.

We believe these three barriers contribute to why, as detailed in the paper, a recent LCP Delta survey found only 9% of consumers could be categorised as leaders in the energy transition.



## Innovation is key

Innovation is key to overcoming the psychological barriers and enabling the market to reach the mainstream consumer.

**Technology:** Disrupt the market and enhance customer choice.

**Business models:** Drive competition and improve customer options.

**Product offerings:** Provide a wider range of price points to suit different customer needs.

**Training programs:** Build a strong installer base for new technologies.

**Information campaigns:** Increase consumer confidence by deepening understanding of new technologies.





## *Human psychology: A barrier to reaching the mainstream consumer*

The threats of climate change are well documented and the natural disasters that are becoming more frequent are increasingly illustrating the impact it will have. However, despite the severity of what has been seen, it has not generated the pace of change required to meet net zero. In this first section of the whitepaper, we explore two elements of human psychology that explain why the pace of change required has not been met yet.

Positively, as we detail later in the paper, these two traits are increasingly being tackled by companies and governments as they design product offerings and policies respectively, to enable the rollout of the technologies. In doing so this increases the probability that the mainstream consumer is reached and the momentum in the energy transition is regained.

# The psychological barriers

Reaching the mainstream consumer (1 of 2)

## 1) Loss aversion: the preference for the status quo

Humans, as a species, are **not set up well for change**. Even though, change is the only constant, **we typically resist it**. Analysis of resistance to change was carried out by the Nobel Prize winner, Daniel Kahneman in his work with Amos Tversky, and together they first established a label for the behavioural characteristic of humans described as 'loss aversion'.

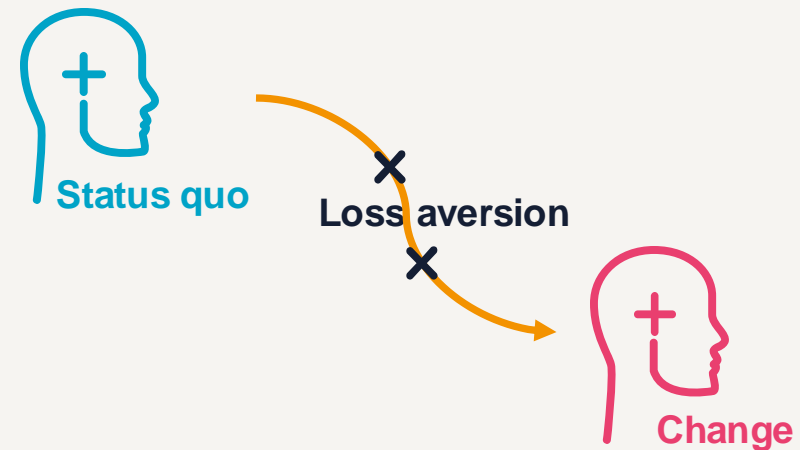
Loss aversion can be summarised as our tendency to prefer taking actions that help us to avoid losses, rather than taking actions that can help us to achieve gains. Given the huge losses that could result from climate change it might seem, at first glance anyway, that this 'loss aversion' could be beneficial to the ambition of achieving net zero. Sadly, this is not the case.

It is in the detail of what avoiding losses means to us that the problem it poses for reaching net zero becomes apparent. In his book, Kahneman provides this summary,

*“Loss aversion is a powerful conservative force that favours minimal changes from the status quo in the lives of both institutions and individuals.” Daniel Kahneman, Thinking, Fast and Slow*

Given the changes that must take place both at the institution and individual level to achieve net zero, this human preference for the status quo is a significant barrier to clear. **Ironically, it could be that our resistance to change ends up in a change that is potentially greater than anything seen in human history, by worsening the change in the climate we rely on.**

Loss aversion diagram



# The Psychological barriers

Reaching the mainstream consumer (2 of 2)

## 2) Overvaluation of the present compared to the future

Psychologists have long been interested in humans' typical preference for small immediate gains over larger delayed benefits. Professor Woo-Kyoung Ahn, Professor of Psychology at Yale University, summarises it very succinctly as, 'the future simply *feels distant*'.

In Ahn's exploration of how humans value the present compared to the future, she cites a study in her book\*, which found that 'people prefer 21 days of improved air quality this year over 35 days of improved air quality one year from now'. Ahn provides the explanation for this that, 'It's easy to imagine how much our present self can enjoy the fresh air, but it is hard to imagine how our future self will be and how much fresh air would be worth to that person.'

The benefits of actions taken on climate change today will not be immediately visible and human psychology will therefore likely value them less. Furthermore, this is exacerbated by the fact some consumers may also feel that the costs of action are privatised, where they pay for the green technology, but society benefits from the reduced emissions.

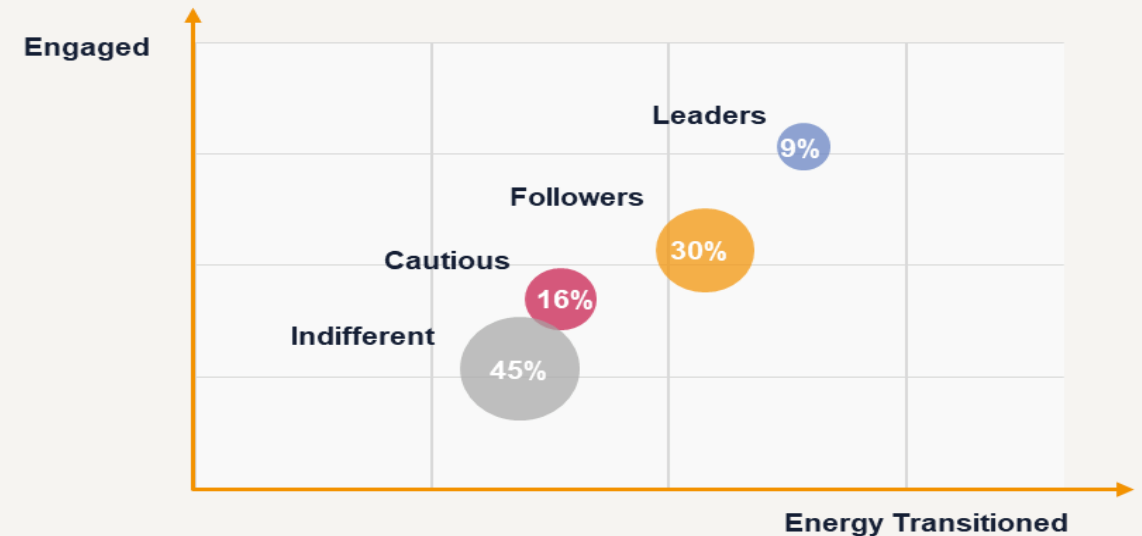
These issues in how humans value action today are another significant barrier that needs to be overcome to successfully move to the mainstream consumer. In short, both the immediate gains and the valuation that consumers place on the future benefits need to increase sufficiently that they decide to buy the green technologies in the present.

\*Thinking 101 by Prof. Woo-Kyoung Ahn

The two traits of human psychology outlined here go a long way to explaining the phrase 'old habits die hard'. Given our preference to resist change and to place a higher value on current comfort over future comfort, the challenge to change the habits of driving internal combustion engine cars, using gas boilers for heating and gas to cook food cannot be overestimated.

In a recent customer survey carried out by our Energy Insights team, nearly half of respondents (45%) were indifferent with regards to the responsibility of reducing carbon emissions, with only 9% classified as leading the energy transition. To increase this 9% figure and reduce the 45% figure, overcoming the psychological barriers detailed here can lead to significant progress.

Customer segments: Relative attitudinal and behavioural positioning





## *Developments in product offerings to reach the mainstream consumer*

Despite our resistance to change, human history is awash with examples of disruptive technologies that have moved us from the status quo and as a result, improved our lives.

**Innovation** is the key to this shift and can lead to the mainstream consumer.



# Regaining Momentum

## Residential solar PV propositions

### Customer proposition – bundling + rewards

Innovation has been key to successfully disrupting a sector and the residential energy sector is no different. At the start of this century a consumer had very little to choose from or think about when it came to the energy in their home, energy was very much a commodity business.

Fast forward to present day and the choices are vast. Innovation has brought the technologies of solar PV, battery storage, EV charging, heat pumps and smart thermostats to the customer, as well as the pricing innovation (enabled by the development of smart meters) which has led to the increased choice of tariffs available. All of this is **culminating in the latest innovation of Home Energy Management offerings.**

The disruptive nature of these new technologies has been accentuated by new companies entering the market, with the arrival of 1Komma5, Tomato Energy, Hometree and Octopus to name a few. This **competition brings more choice to the consumer** and leads to the development of better propositions as companies look to compete.

Now that the once relatively simple world of **home energy has been disrupted**, how can the new technologies successfully reach the mainstream consumer?

**Bundles are one potential answer.** Not only are bundles an effective way for businesses to compete, but by design they also make the proposition more attractive to the consumer and therefore draw in more of the customer base.

Beneficially, one of the ways that bundles make it more attractive for the consumer is also an effective way of overcoming the psychological preference for the status quo. **Bundles have been shown to reduce the fear of loss aversion** and with this they can move the energy transition into the mainstream consumer.

### The use of rewards



OVO allows customers to earn five free solar panels by staying with them for two years. This approach helps overcome both psychological barriers and can help move the market into the mainstream consumer:

- It **significantly lowers the loss aversion barrier** by providing solar PV for free.
- OVO's offer also looks well placed to tackle the hurdle of the future benefits of green technology being given too low a value by potential customers. By OVO offering free panels, more consumers will experience the benefits of residential solar energy. This experience will **likely increase the valuation that they place both on the immediate gains and the future benefits** of green technologies, leading them to buy more green technologies in the present.
- The offer also **strengthens customer loyalty**, a crucial advantage for the company in an increasingly competitive market.

# More from our residential services

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# Regaining Momentum

EV market on the verge of mainstream

## Customer proposition - affordability and convenience

Innovation has always been key to disruption and Henry Ford's quote is one of the most famous on the subject, "If I'd listened to customers, I'd have given them a faster horse". In the early 1900s, Ford and his rival, Alfred Sloan of General Motors played crucial roles in making automobiles accessible. Ford's streamlined production of the model T and Sloan's philosophy of "a car for every purse and purpose" drove prices down, bringing cars to the mainstream.

While the EV market has evolved over the past decade, it remains skewed towards luxury models. Unlike their predecessors a century ago, today's automakers have yet to offer enough affordable options to capture the mainstream market. However, this is set to change with a wave of lower-cost EVs launching in 2025, such as the Renault 5 E-Tech and VW ID.2, priced around £22,000.

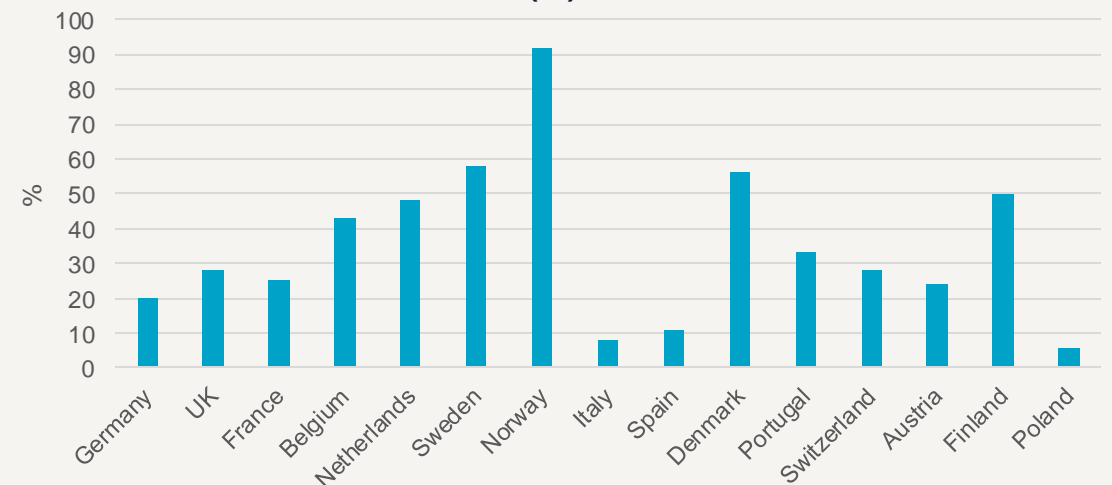
Crucially, declining EV prices are pushing the market towards price parity with ICE cars, easing consumer concerns over costs and reducing loss aversion. Overcoming this psychological barrier could propel EV adoption into the mainstream. While EV market share still varies significantly across Europe, the rise of affordable options should see positive leaps in the adjacent chart.

Price has undoubtedly been a barrier to mass adoption but so has range anxiety, which continues to keep many consumers tethered to ICE vehicles. However, there is strong reason to believe this barrier can be overcome, bringing the mainstream consumer into the EV market. Greg Jackson has stated

that 93% of surveyed EV drivers would never return to an ICE car. This high level of customer satisfaction suggests that range anxiety is more of a psychological concern than an actual practical issue.

Furthermore, in a recent discussion with Pod Point, they highlighted that EV drivers point to the significant positive of the convenience of being able to charge their car at home compared to having to find a petrol station with their old ICE car, and the cost benefits of charging overnight on off-peak tariffs. As these positive experiences become more widely known within communities, more consumers will progress through the adoption curve (from indifferent to cautious, cautious to follower, follower to leader) and ultimately drive mass-market adoption.

BEV + PHEV Sales Market Share (%) 2024



Source: LCP Delta

# More from our EV charging services

## EV charging research

We support strategy development in the fast-growing eMobility market with market-leading insights, data and intelligence, focusing on the European EV charging sector and helping companies navigate the evolving landscape.

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## EV consulting

We provide strategic consulting on EV projects, offering insights into charging infrastructure, market trends and policy developments to accelerate eMobility adoption.

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**What's next for Europe's EV growth and charging infrastructure?**

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## Podcasts



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The 2024 market struggled after strong previous years. In this podcast, our EV Charging team and hosts discuss the market environment.

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# Regaining Momentum

## Heat pumps: building the skills and understanding

Innovation is essential for disrupting the status quo, but it also demands new skills: both for installation and understanding. Governments, industry associations and NGOs play a crucial role in addressing these needs.

### Skills

To achieve net zero goals, a **vast and skilled installer base is required**. Effective and appealing training programs are critical, and many organisations are supporting this effort by funding training programs in higher education institutions, often in partnership with industry players who provide equipment and expertise. Despite these efforts, **additional funding and incentives are necessary** to prepare a workforce capable of executing the rapid technology rollout required.

Beyond training, establishing robust regulatory frameworks ensures installation quality meets the necessary standards. As these programs build their reputations and **guarantee quality, consumer confidence will grow**, shifting more consumers up through the categories, from 'indifferent' to 'leaders' in the energy transition.

### Understanding

With innovation comes the potential for **misinformation, which can reinforce the natural preference for the status quo**. Range anxiety in the EV market and misconceptions about heat pumps in the UK are prime examples. Governments, industry associations, and NGOs can counteract this by launching **clear and effective information campaigns**, reassuring consumers as they adopt the new technologies.

Notably, the UK government's decision to employ a **"nudge unit"** in early 2025 to enhance communication around heat pump technology **represents a promising, innovative approach**. Similarly, innovative campaigns, such as partnerships with social media influencers, as highlighted by [Klara Ottosson](#), demonstrate the growing importance of addressing consumer concerns directly.

*“18% of homeowners still believe gas boilers are the most sustainable heating option, with only 25% believing heat pumps are the most environmentally friendly solution\*. That’s why there is urgent need for households to receive accurate and correct information.”*

*Achilleas Georgiou, Mitsubishi Electric*

*\*Mitsubishi survey*

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## Residential heat subscription research

For over 20 years, we've provided insights and analysis on Europe's heating transition, helping you understand market trends, navigate the stakeholder landscape, and create compelling customer propositions.

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### Podcasts



#### Talking New Energy

Join us as we speak with Aira, a new entrant in the heat pump market, about their mission to drive low-carbon heating into the mainstream.

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## *Conclusion, introducing the second component of regaining momentum and roundtable invitation*

Innovation can make inroads into the mainstream consumer, but it cannot complete the move alone. Our third whitepaper covers the other component needed to regain momentum: finance.

# Significant strides in innovation are being made

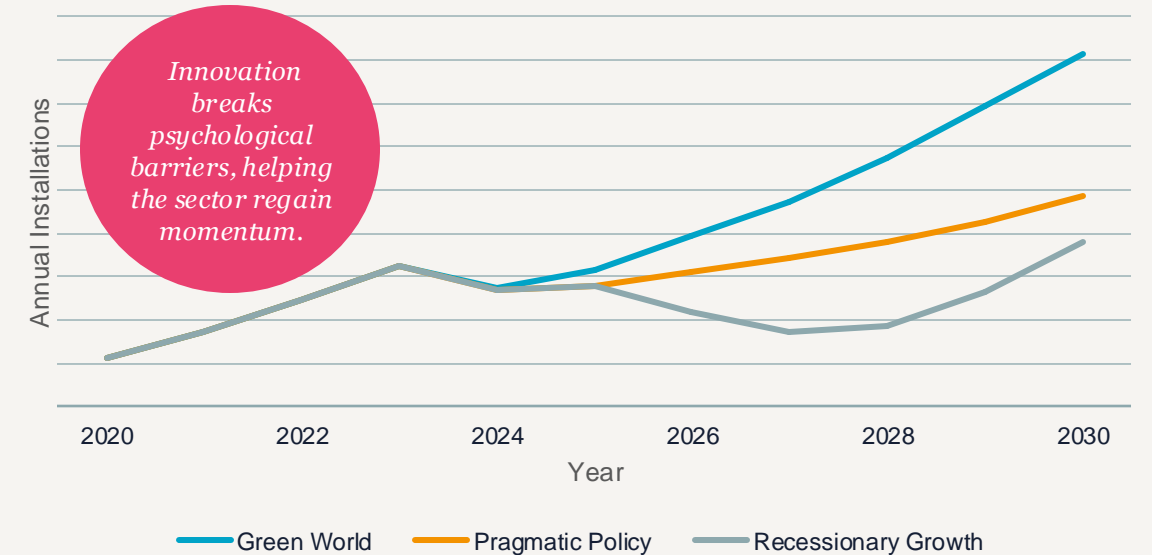
## Conclusion

In this second of three whitepapers, we have explored **key innovations shaping the residential net zero landscape**. These range from new home energy propositions and a broader spectrum of EV price points, to government and industry-led initiatives aimed at building a skilled workforce and improving consumer understanding of emerging technologies.

These innovations **offer strong reason for optimism**. The psychological barriers that often accompany change can be overcome, and **once new habits are formed, people are unlikely to revert to old ways**. This can lead to the strong growth scenarios detailed in the chart that also appeared in the first whitepaper of the series.

To reinforce this point, we return to Greg Jackson’s powerful statistic: **93% of EV drivers would never go back to an ICE car**. This underscores a critical truth: once mainstream consumers adopt new technologies, the momentum toward net zero will be firmly established, driving progress forward with increasing certainty.

Potential Recovery Paths





# *Regaining momentum: Growing Europe's net zero home market*

Virtual roundtable invite

We hope you have enjoyed reading this second whitepaper in the series.

On Tuesday 1st April at 10:30 GMT, we will be holding a virtual roundtable event where we will be hosting OEMs, energy suppliers, policymakers and investors to discuss the topics raised in the series.

If you would be interested in taking part in this virtual roundtable, please register your interest using the link on this page.

[Register interest](#)



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