

PAYNE COMMENTARY SERIES: **VIEWPOINT**

Behavior Change Essential to Net-Zero Emissions, says IEA. Here are 2 Ways it Can Go Further.

By Greer K. Gosnell

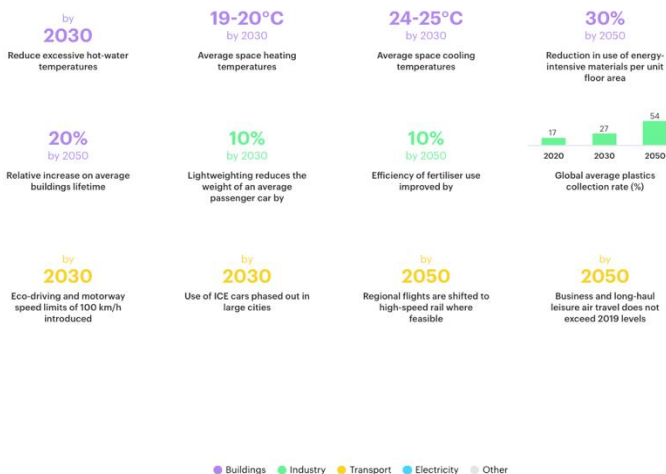
Behavior change has long been a touchy subject when it comes to climate change mitigation. While many of us—myself included—have argued for broader and more rigorous research to enlist individuals in the necessary global transitions, some [have argued](#) that a neoliberal focus on individual responsibility is harming (or at least not helping) global climate efforts by distracting us from the real culprits—i.e. fossil fuel interests and policymakers.

The IEA has taken a side in its new Net Zero by 2050 report, which cements behavioral change as a cog in the vast wheel of the global zero-emissions train. And it does a decently good job of it, including things like reducing air travel, shifting transport modes, buying fewer and cleaner vehicles, and more efficiently heating and cooling spaces. But it could do better by (i) expanding and reframing solutions, and (ii) broadening its definition of climate-relevant behaviors.

KEY SOLUTIONS

Behavioural changes

Achieving net zero by 2050 cannot be achieved without the sustained support and participation from citizens. Behavioural changes, particularly in advanced economies – such as replacing car trips with walking, cycling or public transport, or foregoing a long-haul flight – provide around 4% of the cumulative emissions reductions in our pathway.



Expanding and reframing solutions to facilitate behavioral change

The IEA provides a number of dimensions on which individual behavior can play a meaningful role, and suggests the usual suspects to achieve them (i.e. regulations and mandates, market-based instruments, and information and awareness). Indeed, we can and should take fewer and shorter scalding hot showers, adjust our thermostat setpoints, and ditch our cars, but these recommendations are no way to enlist climate foot soldiers.

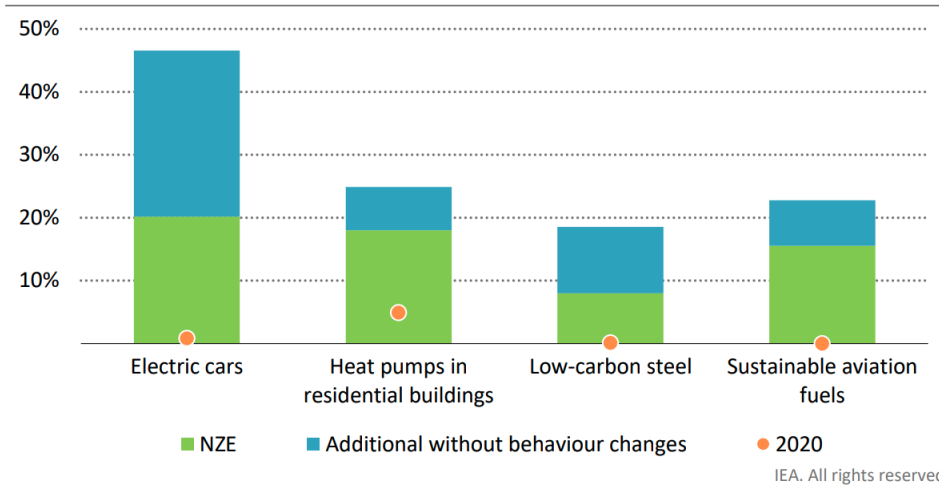
Taking a leaf out of the book of environmental virtue ethicists, one solution is to start framing culture and lifestyle shifts in ways that catch people’s attention for how such shifts will *benefit* their lives. For instance, how can changing your commute from driving to cycling or transit, or reducing red meat intake, increase *your* well-being? Both have been demonstrated to improve your physical and/or mental health, for example, and gamification and socialization of these activities via smart watches and the like certainly provide personal motivations that individuals can get on board with. Research in the social sciences is increasingly showing that social motivations can play a key role in building momentum for large-scale environmental behavioral shifts such as [low-emissions vehicle](#) and [solar PV adoption](#) (for those who do feel warm and fuzzy while performing climate-friendly actions, doing so noticeably can therefore increase your impact).

Moreover, behavior change research can help to inform policymakers of the necessary regulations and incentives that make engaging in these behaviors attractive, thereby avoiding all too common and increasingly [time-critical policy shortcomings](#). Policies are regularly implemented without relevant evidence to demonstrate that taxpayer dollars are indeed being spent optimally. In the absence of designated “nudge units” to rigorously test policies, academic researchers and behavior change consulting firms are standing at the ready to support policymakers and practitioners in identifying policy interventions—including many they have never considered—that work. In doing so, they may even support a cycle of knowledge creation to continuously improve evidence upon which they and other decision makers can draw.

The report also misses the opportunity to highlight the importance of human decision-making in achieving ‘non-behavioral’ goals, risking harmful narrow-mindedness in thinking about our own and our families’ and friends’ roles in catalyzing these essential transitions.

The IEA Report mentions a whole host of transitions across sectors that don’t feature in their behavior change strategy. In fact, two increasingly prominent areas of behavioral-environmental research focus on electric vehicle and energy technology adoption, which are treated in the report as though they are behavior-neutral in the very demonstration of the importance of behavior change:

Figure 2.27 ▶ Share of low-carbon technologies and fuels with and without behavioural change in 2030 in the NZE



Take demand response (DR), for example. While DR is mentioned as part of the ‘portfolio of flexibility sources’ necessary for rapid and decarbonized electrification of the economy, the human dimension is given only a cursory mention as an afterthought (i.e. that ‘potential social acceptance issues’ need to be addressed), and only in relation to electric vehicle smart charging. How about changing the times that we use our ‘wet goods’ (washers, dryers, dishwashers), or adopting technologies to automate these time shifts? What if we pre-cool/pre-heat our well-insulated homes before temperature highs/lows, thereby avoiding weather-induced blackouts like those we have seen in California and Texas in the last year?

Other potential behavioral changes—such as scaling back meat consumption, reducing (not just recycling) the use or purchase of disposable plastic bags and containers, investing in fossil-free portfolios (or low-carbon cryptocurrencies), or rejecting consumption patterns associated with ‘fast fashion’—have implications for hard-to-abate agricultural and industrial emissions, and are at best given a very cursory ‘nod’ in the report. One step removed, civic engagement (including voting) can also play a major role in mustering up the political will to set us on the right path.

In short, I am thrilled to see the IEA enshrining behavioral change as an important enabler of the net-zero emissions transition. Indeed, I implore policymakers and researchers to carefully consider the increasingly stark variation in human motivations, seeking innovative, appropriate, and evidence-based solutions to get as many individuals on board as possible. My only hope is that the IEA will continue to widen their aperture in seeking ways to expand upon this important first step.

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