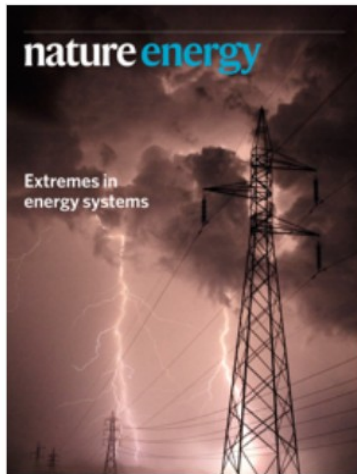


# Nature Energy – Şubat 2020

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Volume 5 Issue 2, February 2020



## Extremes in energy systems

Climate-induced extreme weather events can cause unexpected disruptions in the operation of all kinds of energy systems, from infrastructure all the way to finance. This Focus issue explores how extreme events, from high energy demand in heat waves to financial crashes, reverberate through various energy systems and how we can better prepare for them.

Image: Gavriel Jecan / Agefotostock / Alamy Stock Photo. Cover Design: Allen Beattie.

<https://www.nature.com/nenergy/volumes/5/issues/2>

# İklim değişikliği davaları

## Climate risks are becoming legal liabilities for the energy sector

The number of plaintiffs taking energy firms to court for ignoring climate-related risks is growing. By revealing how the sector is not prepared — and not preparing — for what is coming, their cases are pressing the energy sector to treat those risks as a cost of doing business.

Justin Gundlach

**T**his past year, lawsuits followed a string of deadly and catastrophic Northern California wildfires that had been sparked in at least some cases by electricity transmission and



# Enerji Modellemesi

**comment**

## Energy modellers should explore extremes more systematically in scenarios

Scenarios are the primary tool for examining how current decisions shape the future, but the future is affected as much by out-of-ordinary extremes as by generally expected trends. Energy modellers can study extremes both by incorporating them directly within models and by using complementary off-model analyses.

David L. McCollum, Ajay Gambhir, Joeri Rogelj and Charlie Wilson

# Uç olay kategorileri

## Box 1 | Categories of extremes relevant to energy modelling and scenarios research

### Category 1: Transient events

Events that might be considered out of the ordinary in the 'statistically low probability of occurrence' sense. These are events that may be anticipated but not necessarily well planned for. They could therefore be disruptive (whether singularly or as a cascading series).

Examples: weather events at the far edges of the 'normal' range; or a sudden and widespread financial and economic meltdown, like the sub-prime mortgage crisis of 2007–2008.

### Category 2: Disruptive drivers

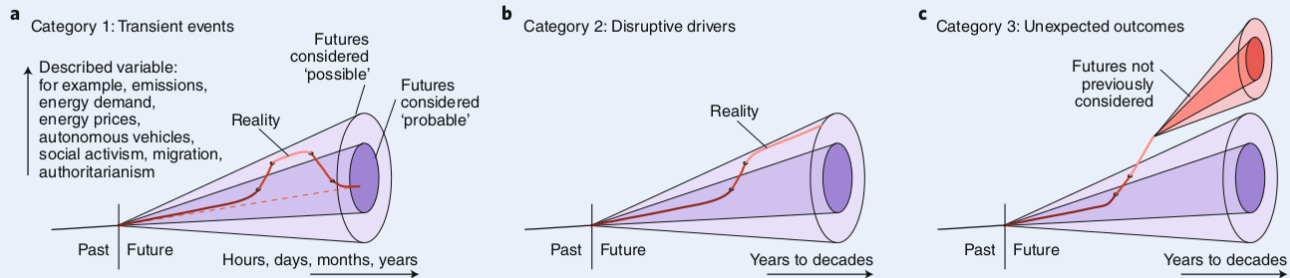
Mega-trends that might be considered out of the ordinary in the 'beyond common perceptions of a probable future' sense. While the rudiments of such drivers may currently be anticipated, at least by some, the speed and scale at which they accelerate change may not be. Therefore, they would almost certainly be disruptive.

Examples: mass automation of service and manufacturing jobs at a rate much faster than currently anticipated; or the disentangling of deep-rooted economic and political alliances, like with Brexit and the China–US trade wars.

### Category 3: Unexpected outcomes

Eventualities that might be considered out of the ordinary in the 'not even on the radar' sense — sometimes referred to as 'black swans'. These outcomes would be unanticipated, and in many cases they would be disruptive. Diverging so fundamentally from the status quo, they could push society to states where it has never been, or ever imagined being.

Examples: past surprises like prolonged wars spurred by terrorism; the forceful occupation of nation-states by others; re-emergence of nationalism; the seemingly irreparable fracturing of democratic institutions and political discourse by media; new discoveries in science, engineering, and medicine that redefine what is considered feasible.



Visualization based on refs. <sup>19-21</sup>.

# twitter.com/barissanli

**Baris Sanli** @barissanli · 1h

Türkiye için en optimum petrol fiyatı hangisidir? (maliye vergileri, ihracat yaptığımız ülkeler, cari açığımız, verimlilik düşünerek) - mümkünse yorumlarınız ile, belki bir yazı yazacağım

en ucuz (<20\$/v)

39.6%

30-50 \$/varil

49.5%

50-70\$/varil

9.9%

>100\$/varil (100\$ üstü)

1%

101 votes · 22 hours left