



Welcome to the AEE Ireland Webinar

The fastest path to **Net Zero**

Graham Murray

Director of Projects, Ireland.



Short term

**Energy
crisis**

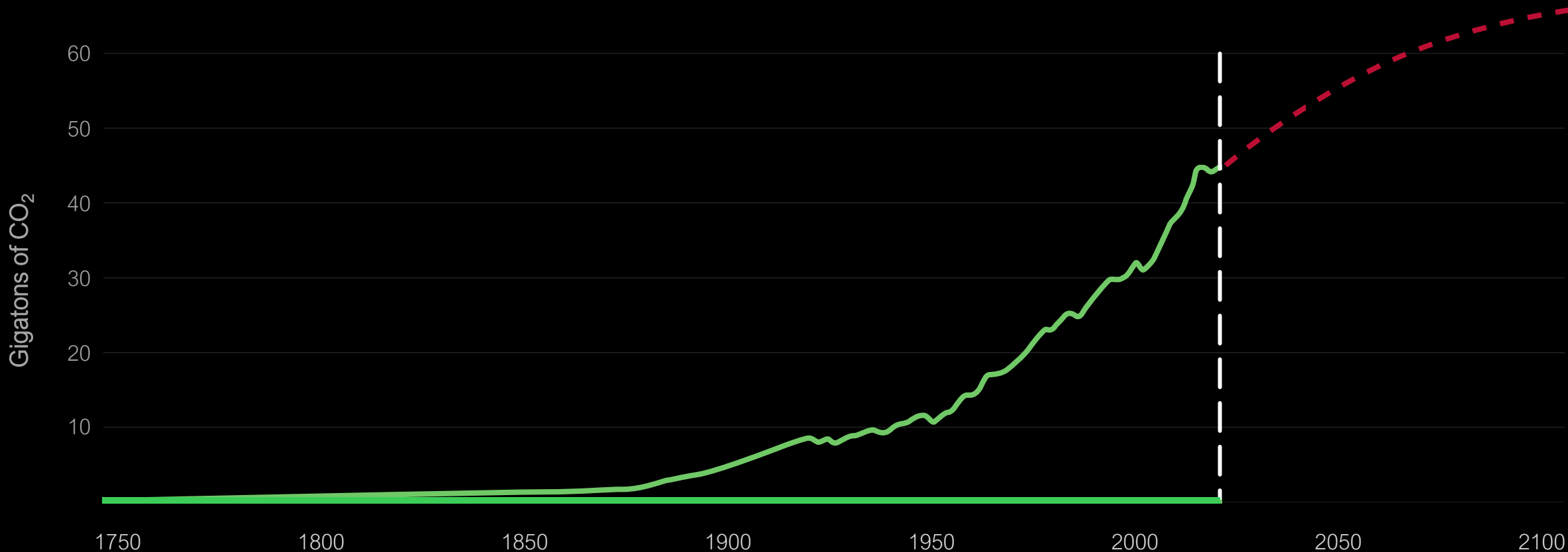
We are at an
inflection point

Long term

**Climate
crisis**

To tackle the climate crisis, we must **decarbonize**

4 – 6°C



Global Carbon Budget (2019); IPCC (2020), ETC, Making clean electrification possible (2021), Schneider Electric Research Institute
View includes industry process emissions, changes in land uses, such as deforestation

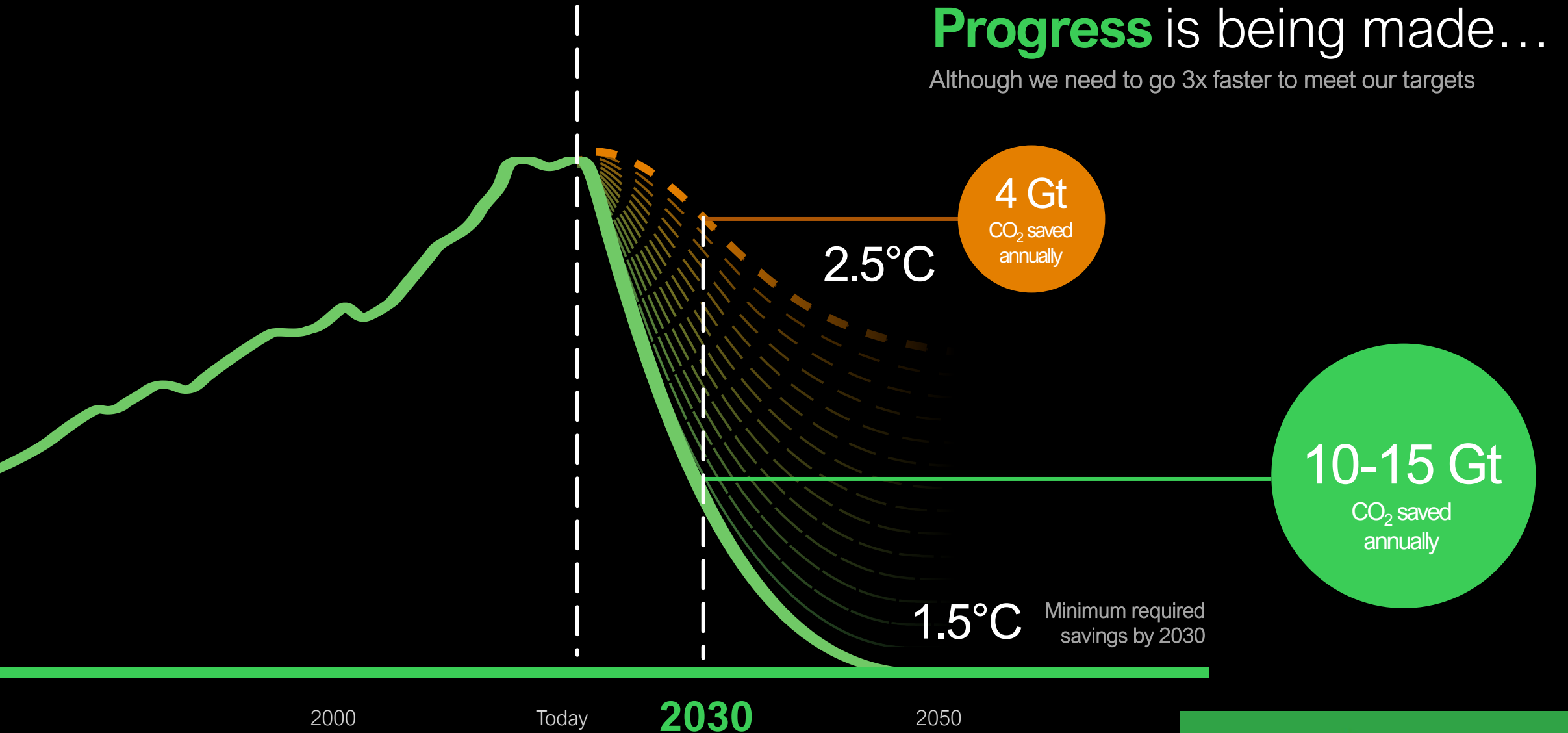
Public

Life Is On

Schneider
Electric

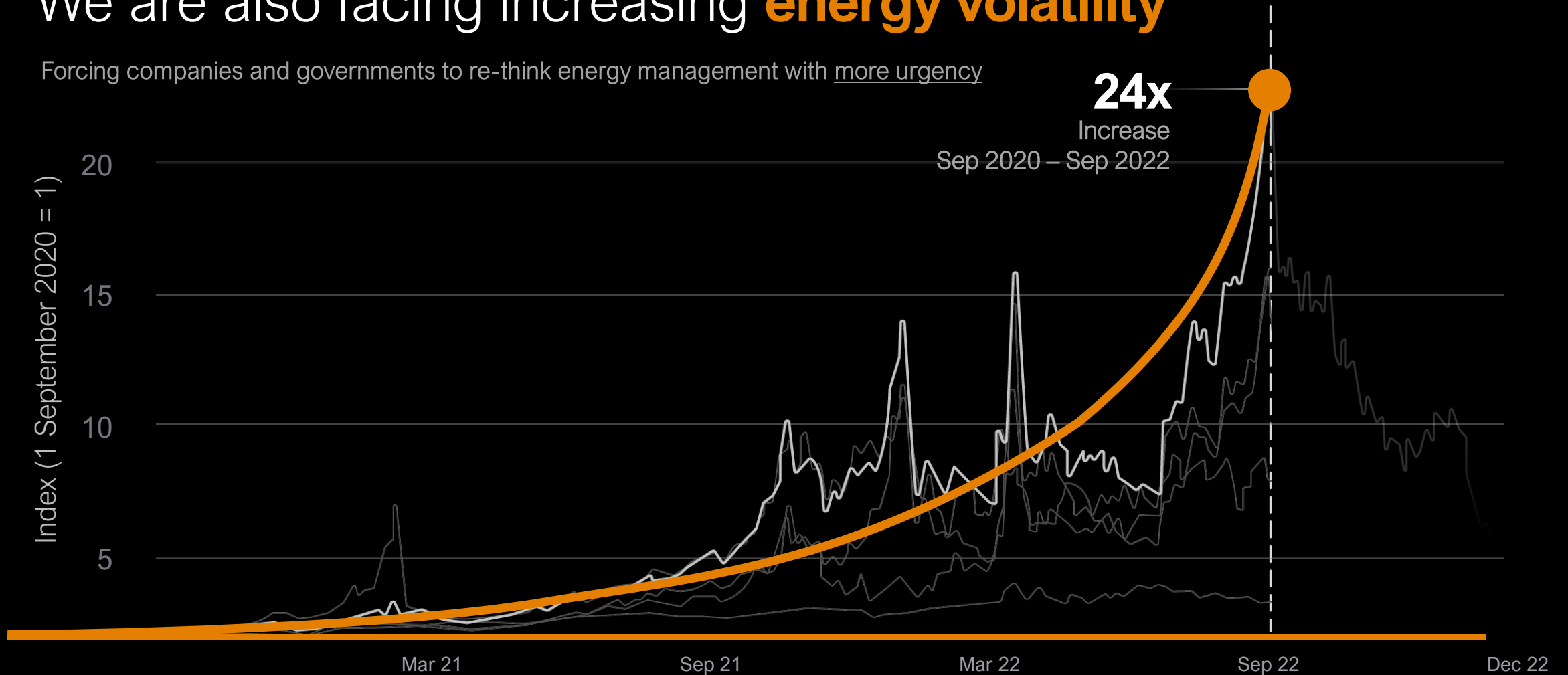
Progress is being made...

Although we need to go 3x faster to meet our targets



We are also facing increasing **energy volatility**

Forcing companies and governments to re-think energy management with more urgency



European gas reached a multiple of almost 25 between Sept '20 and Sept '22

Public



Short term

**Energy
crisis**

The solution
for both is
energy

Long term

**Climate
crisis**



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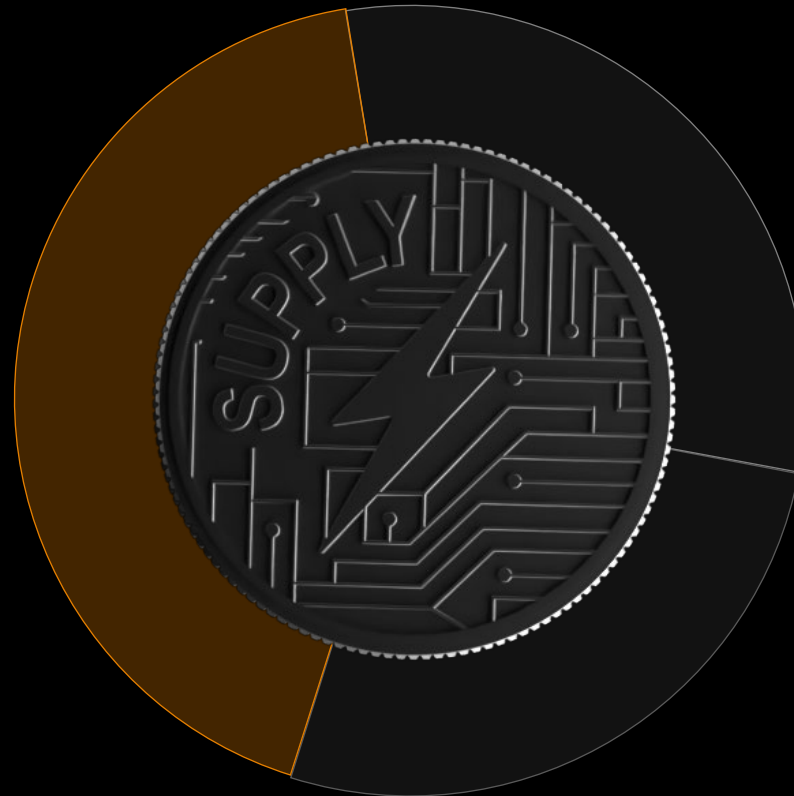
Decarbonizing supply is just one side of the energy coin...



Replace
energy supply
45%*

Offsite renewables purchasing
PPAs

Onsite renewables generation
Solar, microgrid, storage



*Contribution to net-zero energy by 2050

We need to look at both sides... and tackle **energy demand**



Reduce

for efficiency and circularity

25%

Design & Build for Low Carbon

3D-6D BIM design to reduce embodied carbon

Measure, Monitor & Save

Connected systems and software for real-time data, insights and automation

Circularity for sustainability

Choose green by design, with extended life, efficient usage & clean disposal options

Electricity 4.0

is our **vision** to help our customers achieve their energy and sustainability goals **from strategy to execution**, globally and locally

Digital
For Efficiency

Electricity
4.0

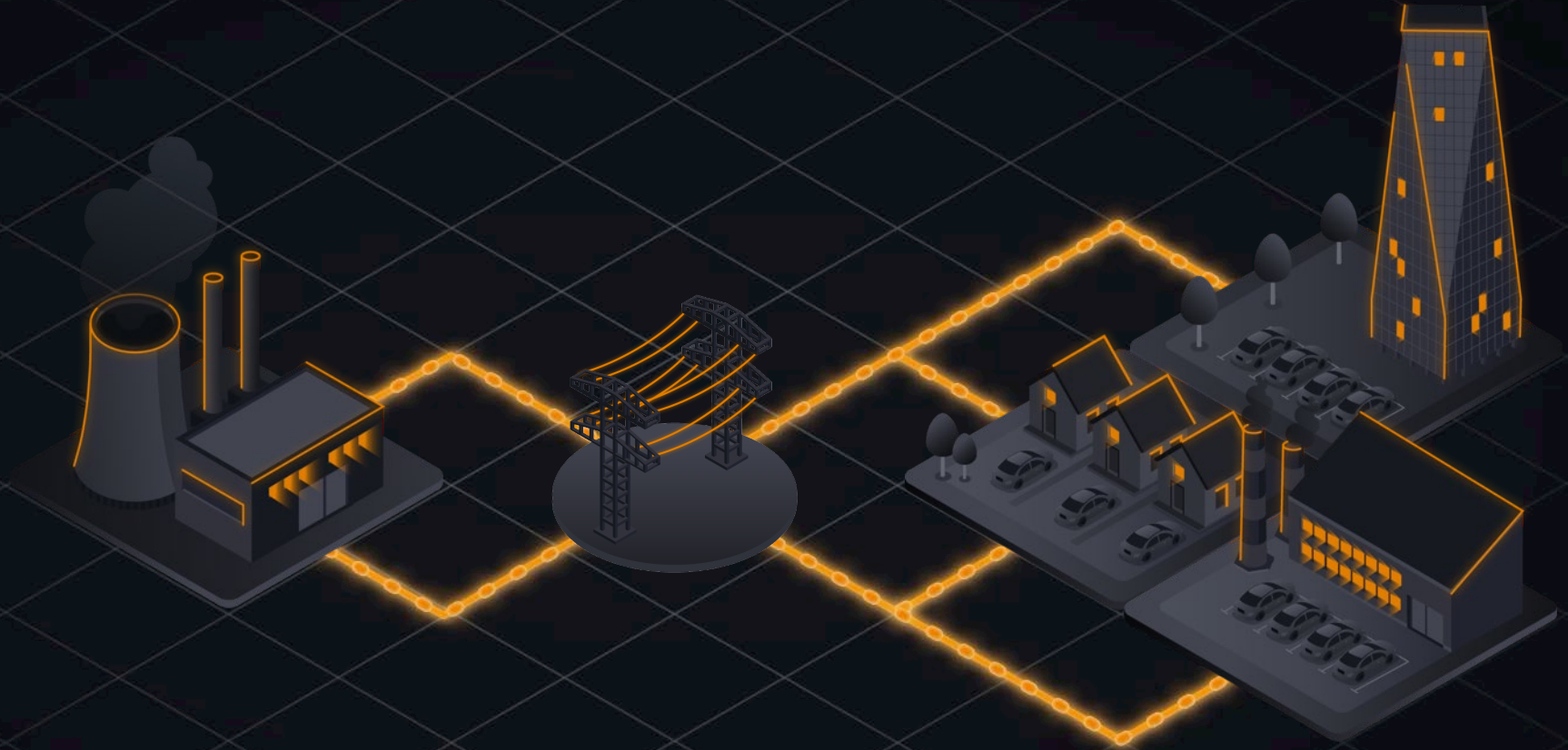
Electric
For Decarbonization

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Digital + **Electric** = **Sustainable**
For Efficiency For Decarbonization Green and Smart Energy

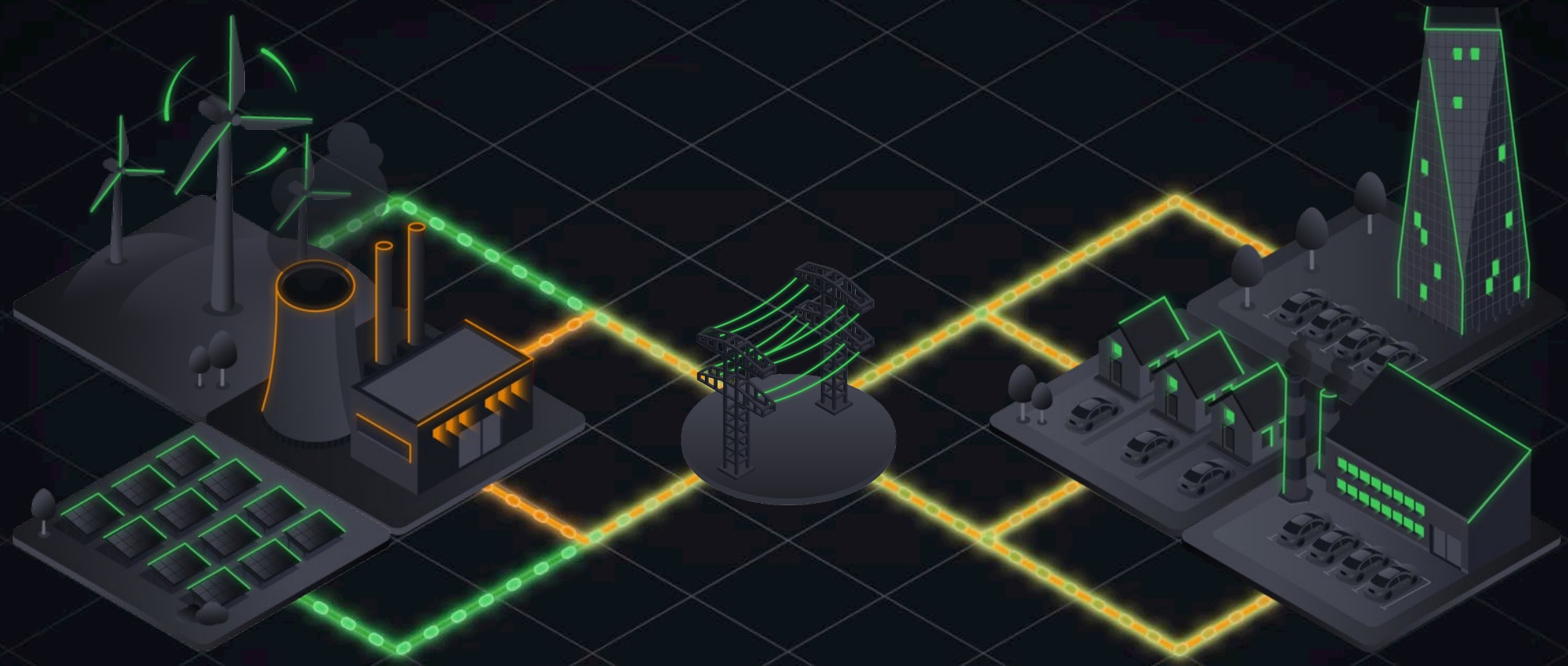
From linear fossil fuel supply and demand



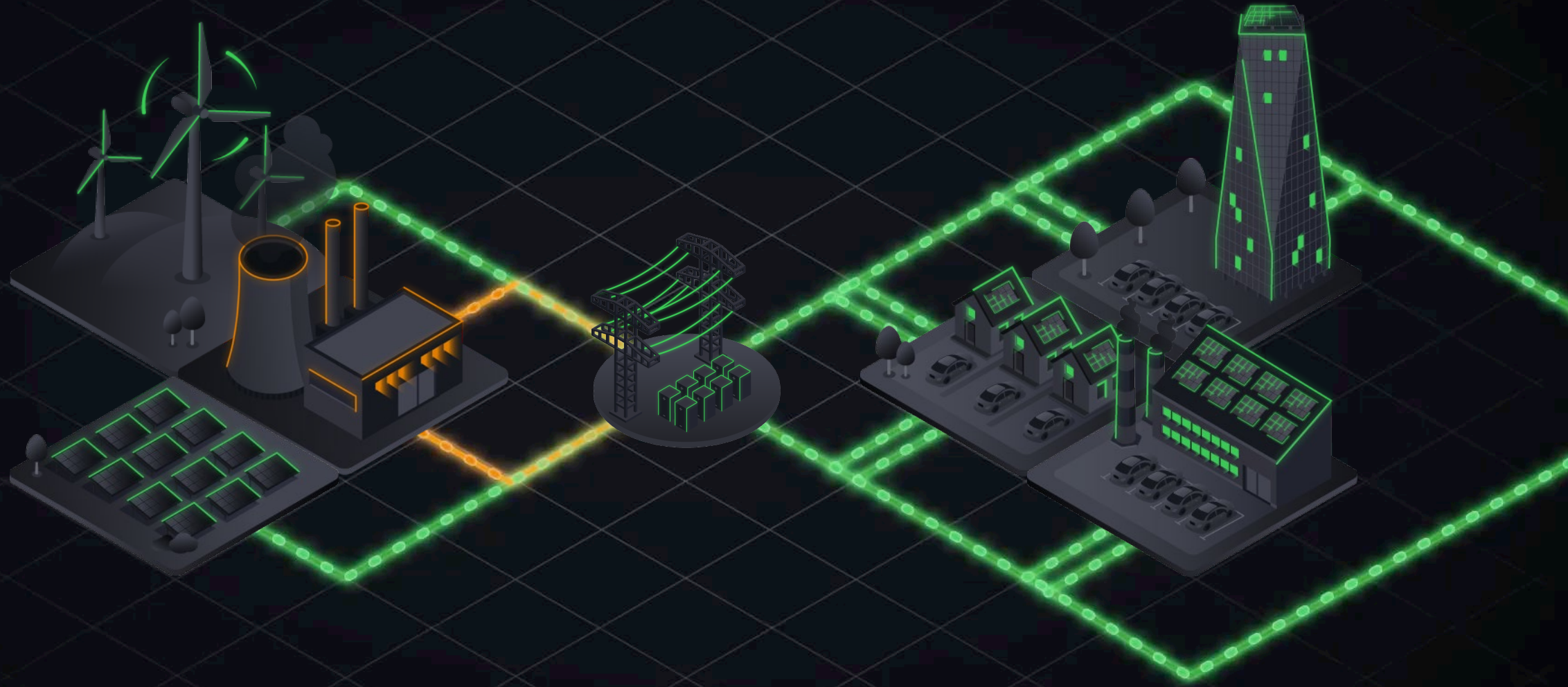
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to a cleaner energy supply with increasing renewables...



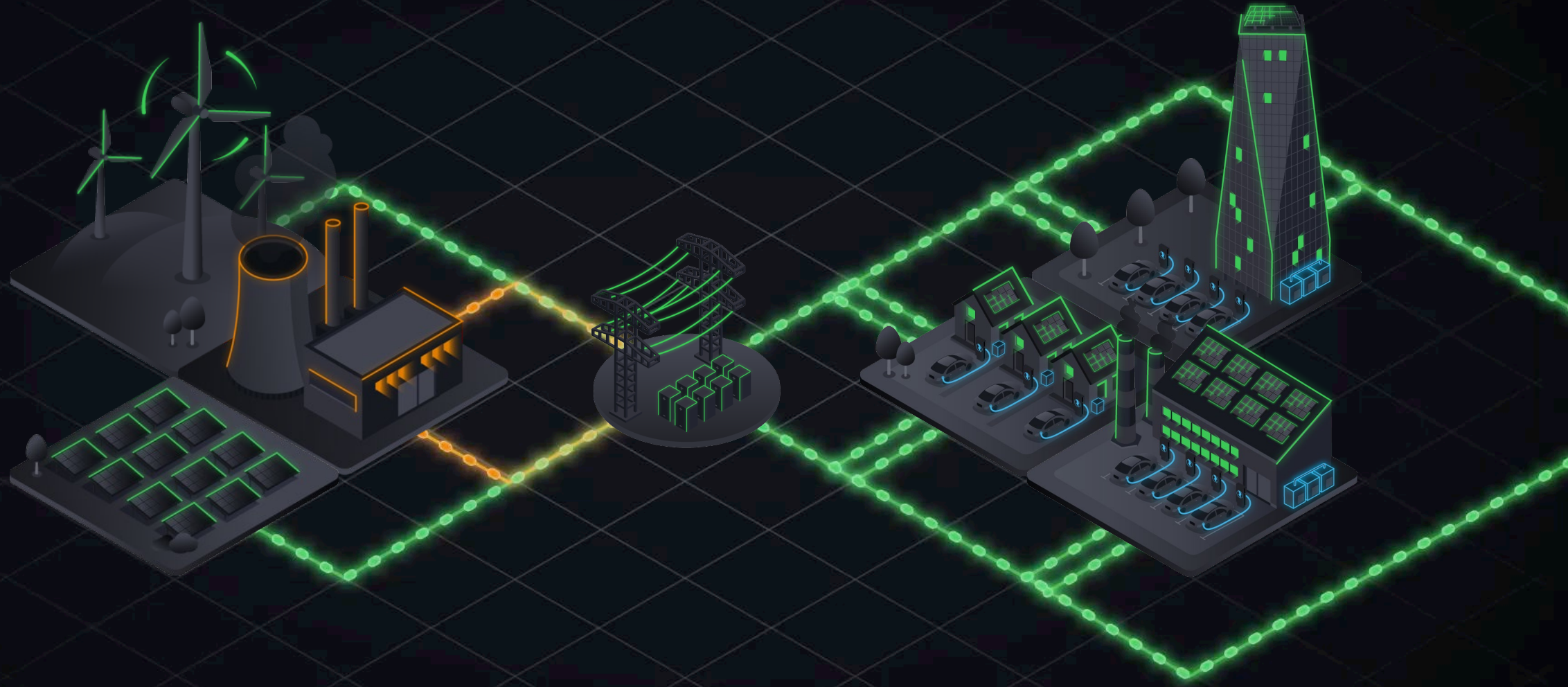
... and **prosumers** feeding a **bi-directional, flexible grid**.



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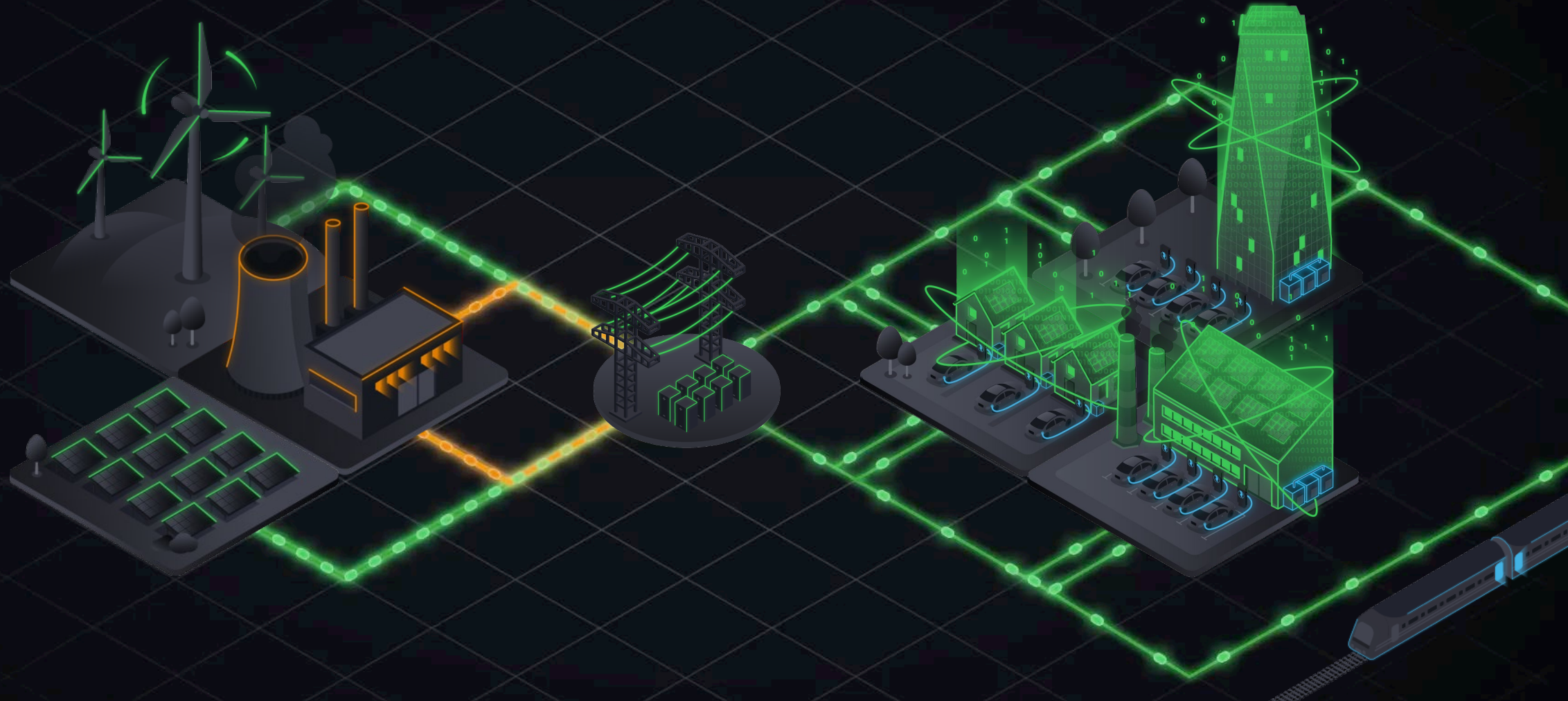
Increasing **Electrification** is reducing dependency on fossil fuels



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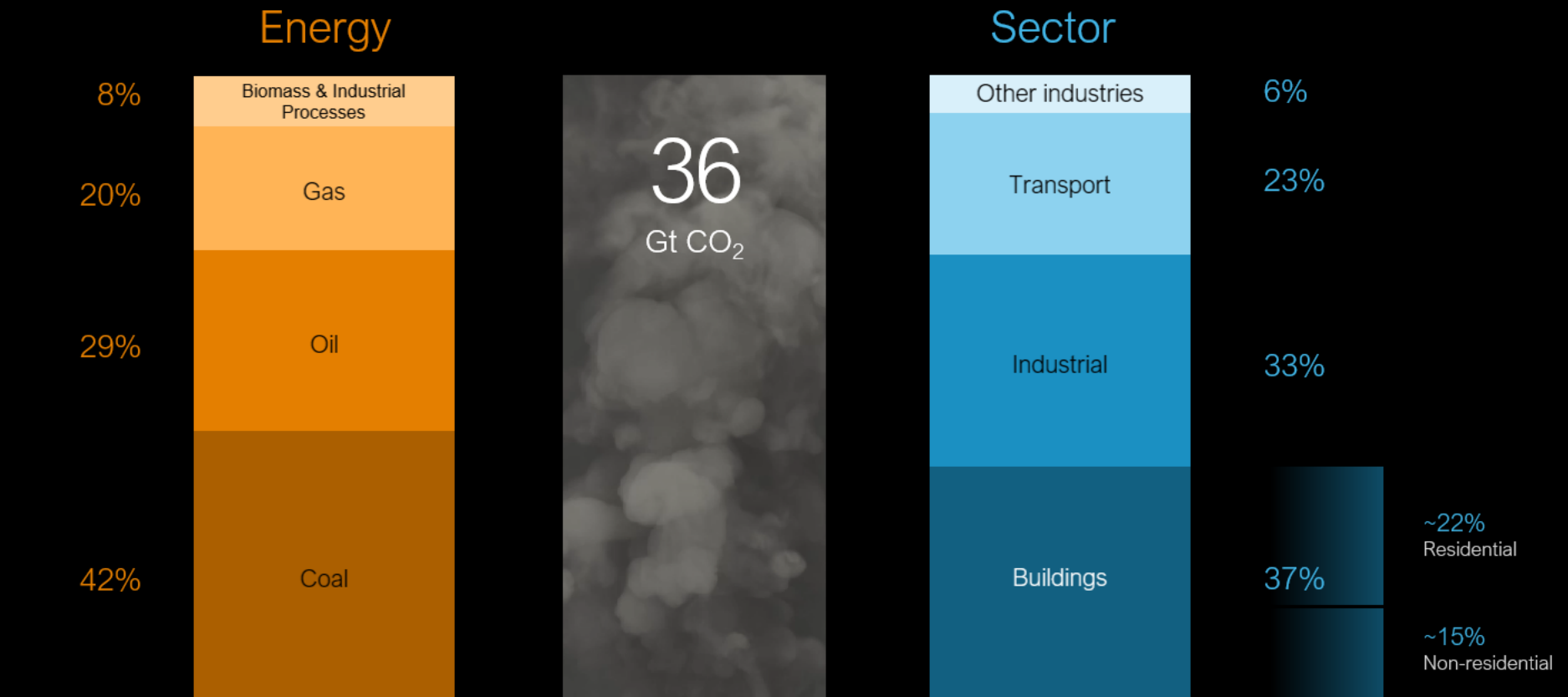
And digital technology is driving demand optimization



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Now let's determine **the source**

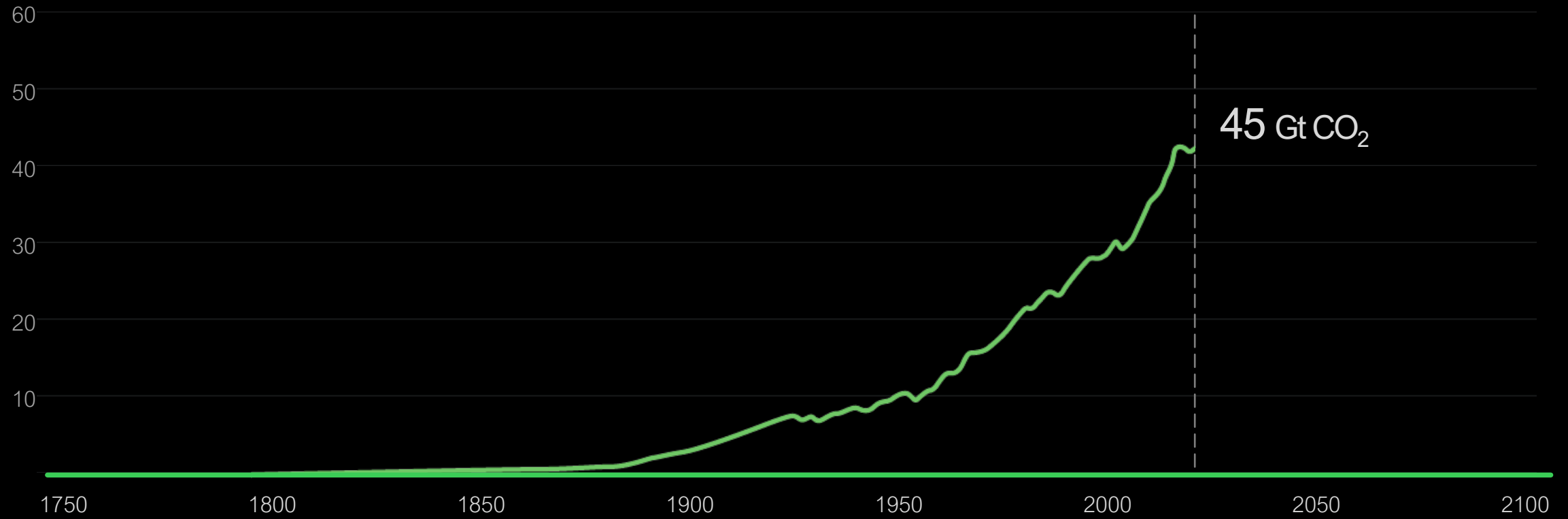


Technology
already exists to
flatten the curve

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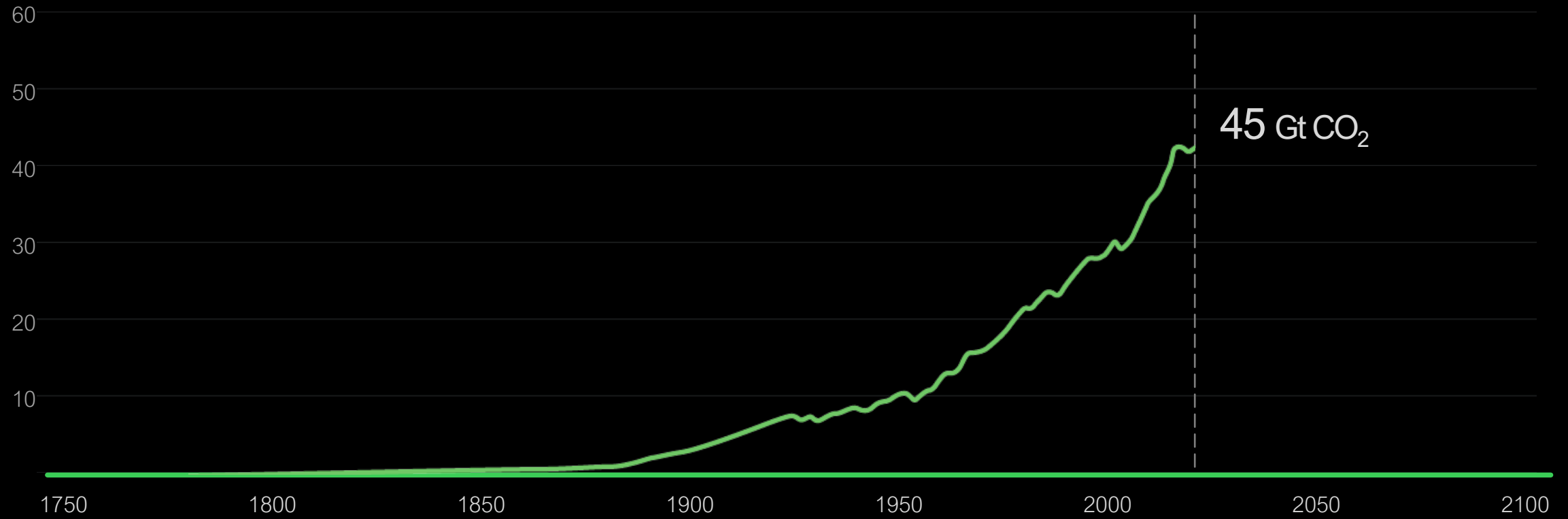
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Gigatons of CO₂



45 Gt CO₂

Gigatons of CO₂



Industry 1.0
Mechanization & steam power

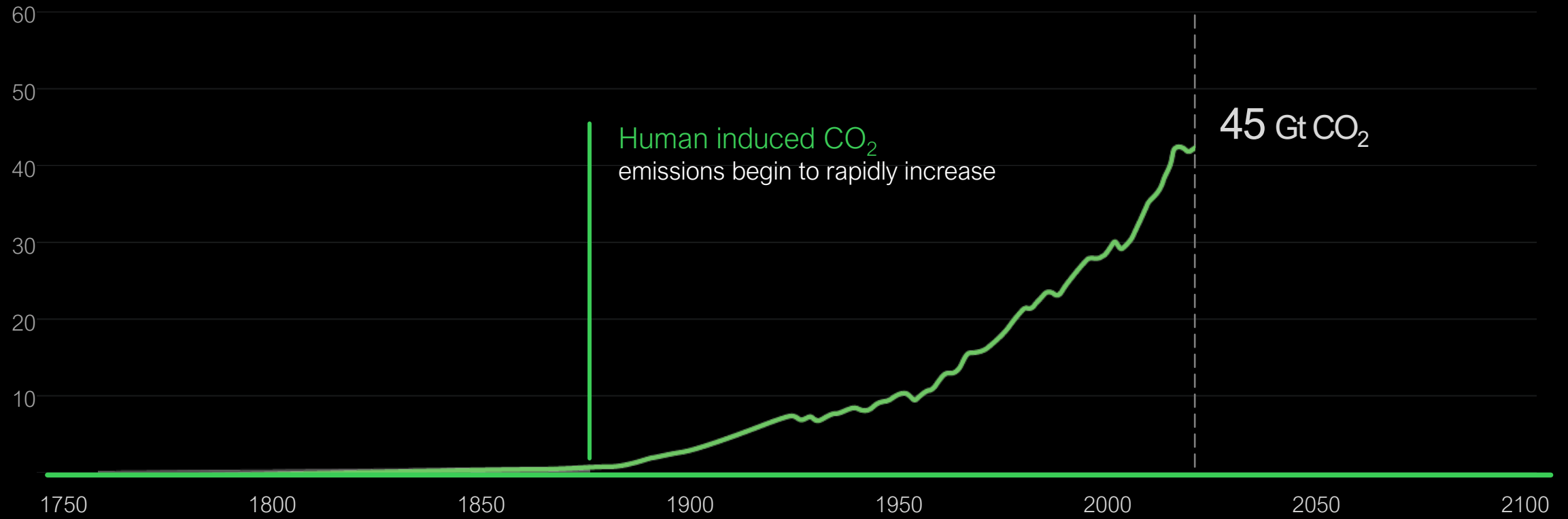


Electricity 1.0
Early pioneers of practical use

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Gigatons of CO₂



Industry 2.0
Mass production

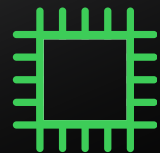
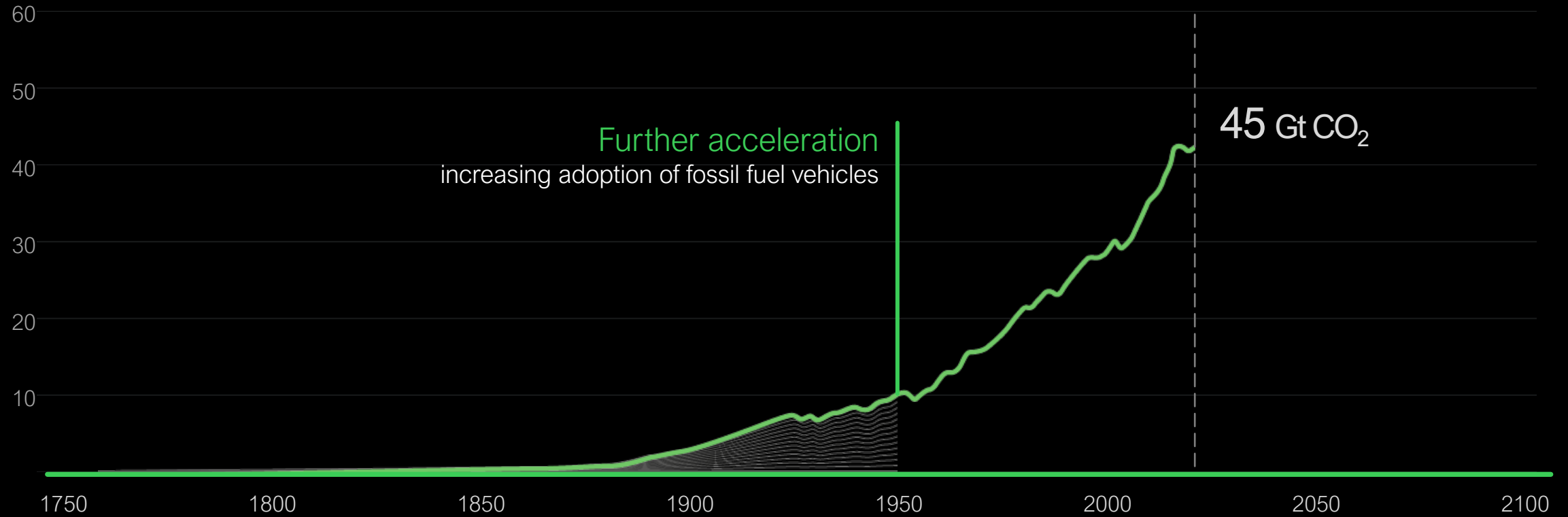


Electricity 2.0
Mass electrification

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Gigatons of CO₂



Industry 3.0
Silicon enables automation

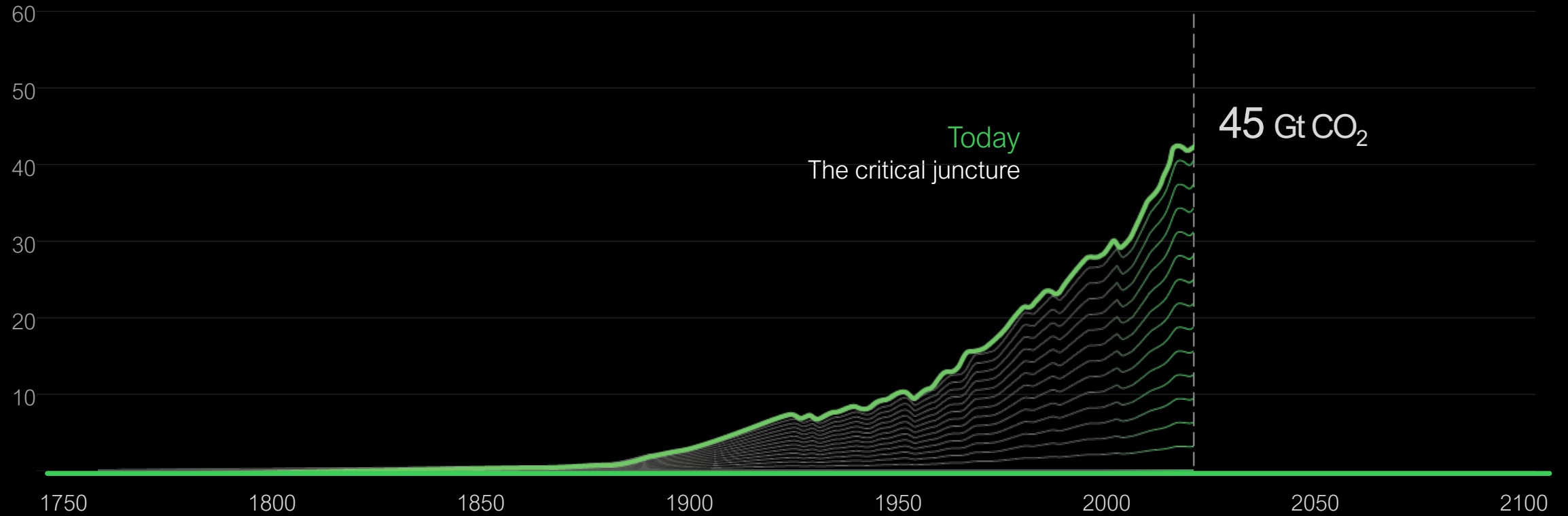


Electricity 3.0
Silicon enables solar & digital

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Gigatons of CO₂



Industry 4.0
Industrial IOT
and automation



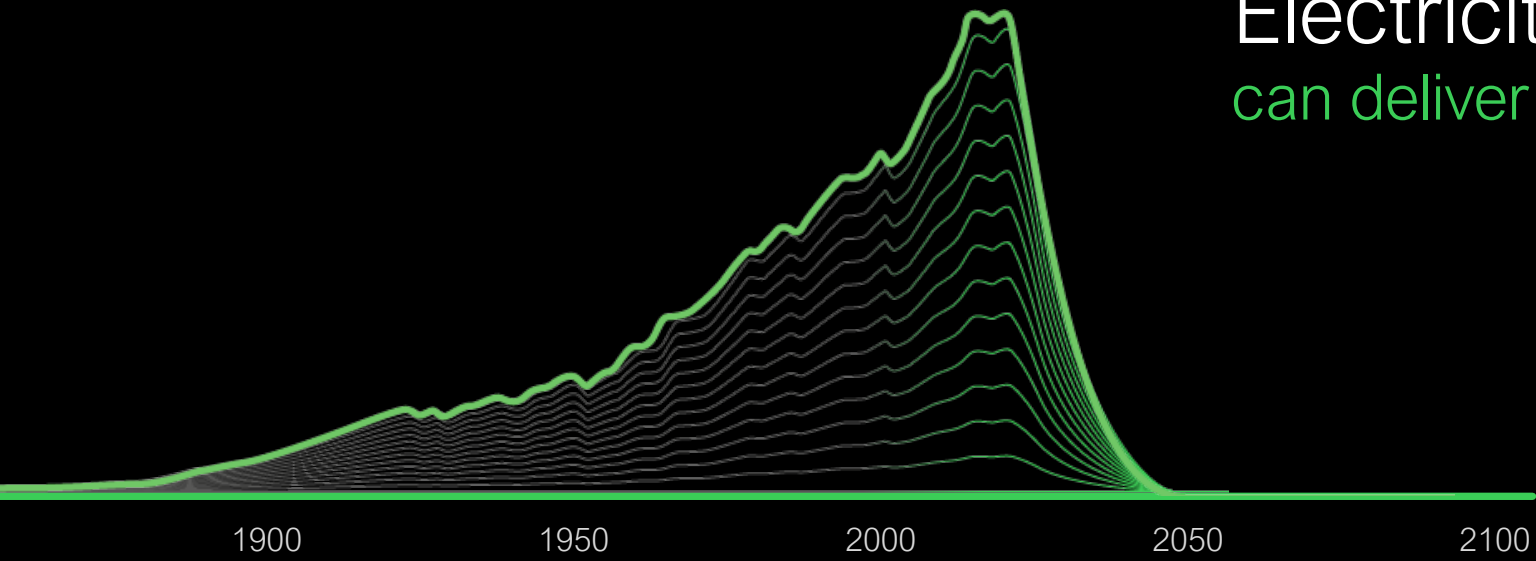
Electricity 4.0
Electric and digital
at scale

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Electricity 4.0

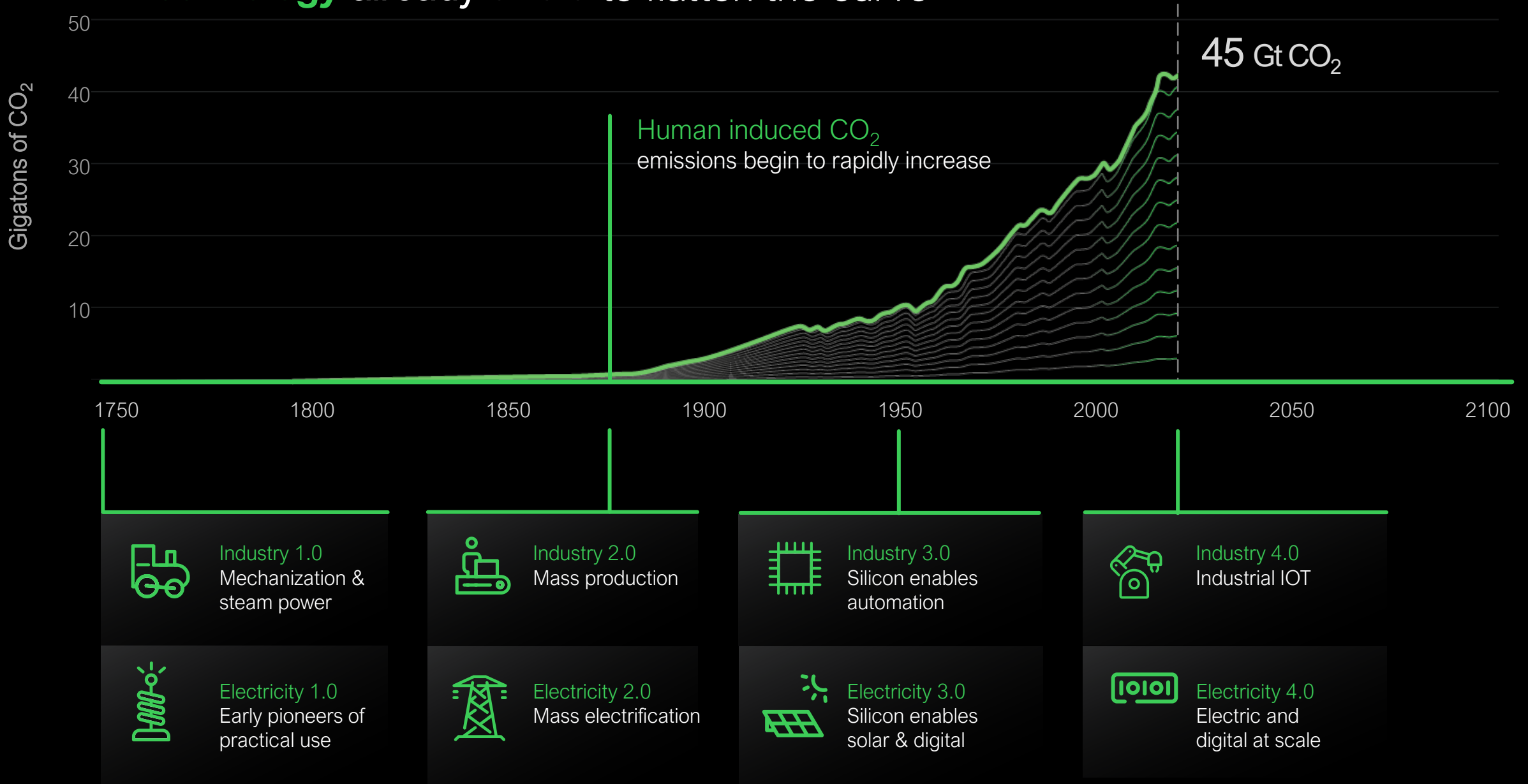
can deliver the 3x acceleration



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Technology already exists to flatten the curve



More **governments** and
more **companies** are making
commitments

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>90

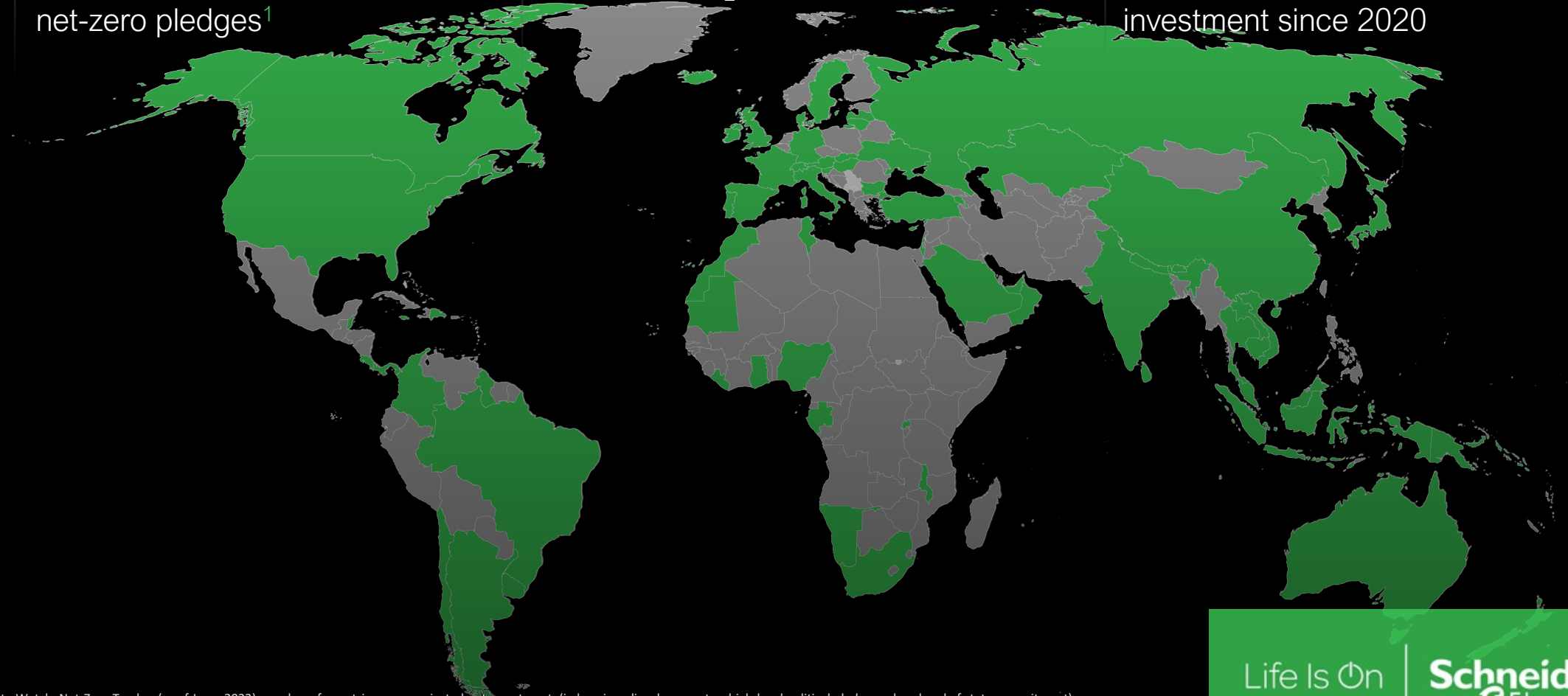
Countries with net-zero pledges¹

>90%

of global CO₂ emissions

\$1.3tn

Government clean energy investment since 2020



¹ Climate Watch: Net-Zero Tracker (as of June, 2023), number of countries communicated net-zero target (in law, in policy document or high-level political pledge such as head of state commitment)

² IEA Government Energy Spending Tracker, June 2023



Leading companies follow an **integrated** approach

Strategize

MEASURE enterprise baseline
CREATE decarbonization roadmap
STRUCTURE program & governance
ENGAGE ecosystem
COMMUNICATE commitment



Digitize

MONITOR resource usage & emissions
IDENTIFY saving opportunities
REPORT and benchmark progress

Decarbonize

REPLACE energy source
ELECTRIFY operations
REDUCE energy use

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**Thank you and Stay
Safe**

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