

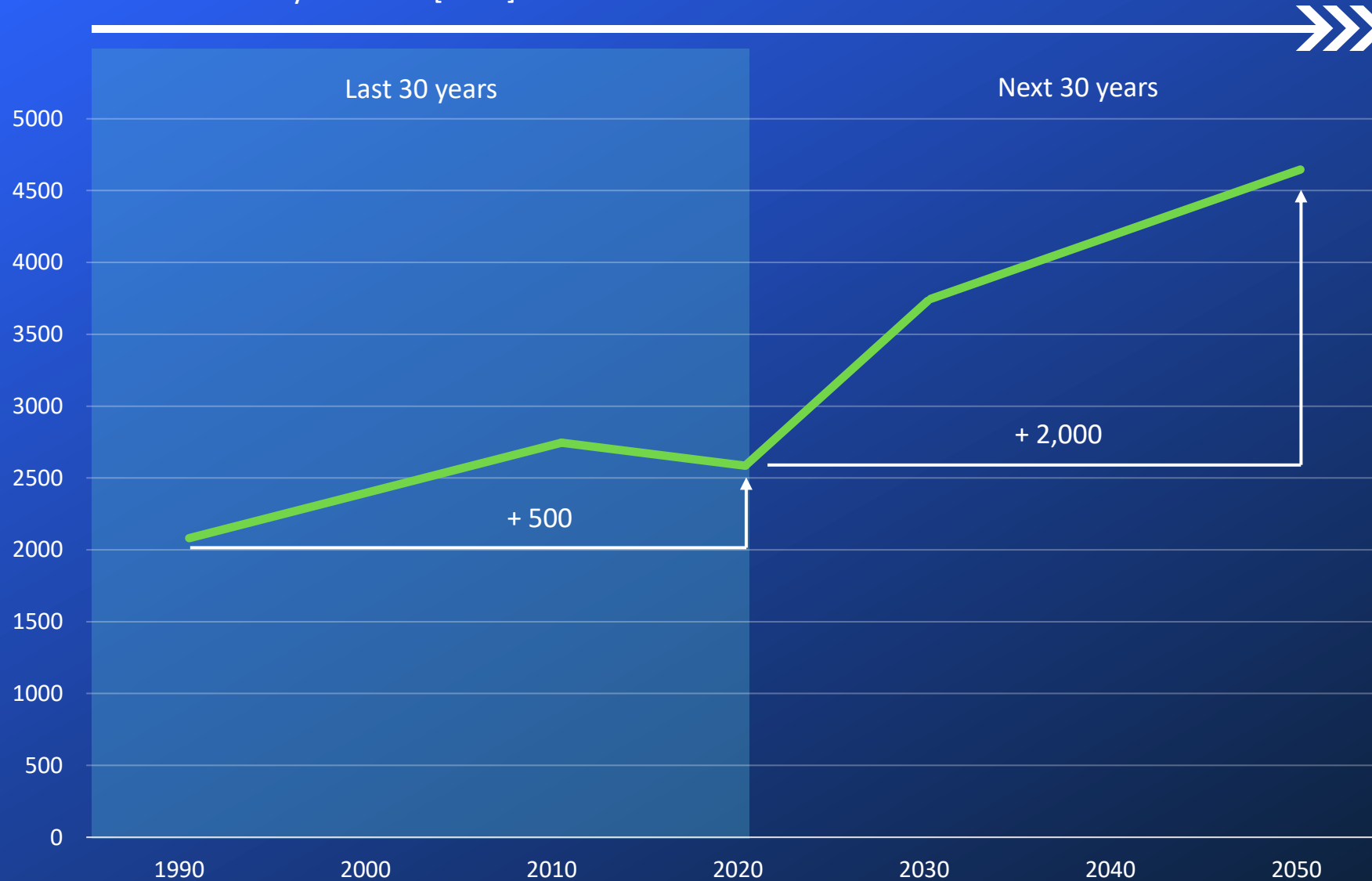
eurelectric

GRIDS
FOR SPEED



Electricity demand set to grow x4 faster

EU27 electricity demand [TWh]



x20

EV & heat pump



x8

Distribution-connected RES capacity



x60


Installed EV chargers



cyber
attacks



extreme
weather

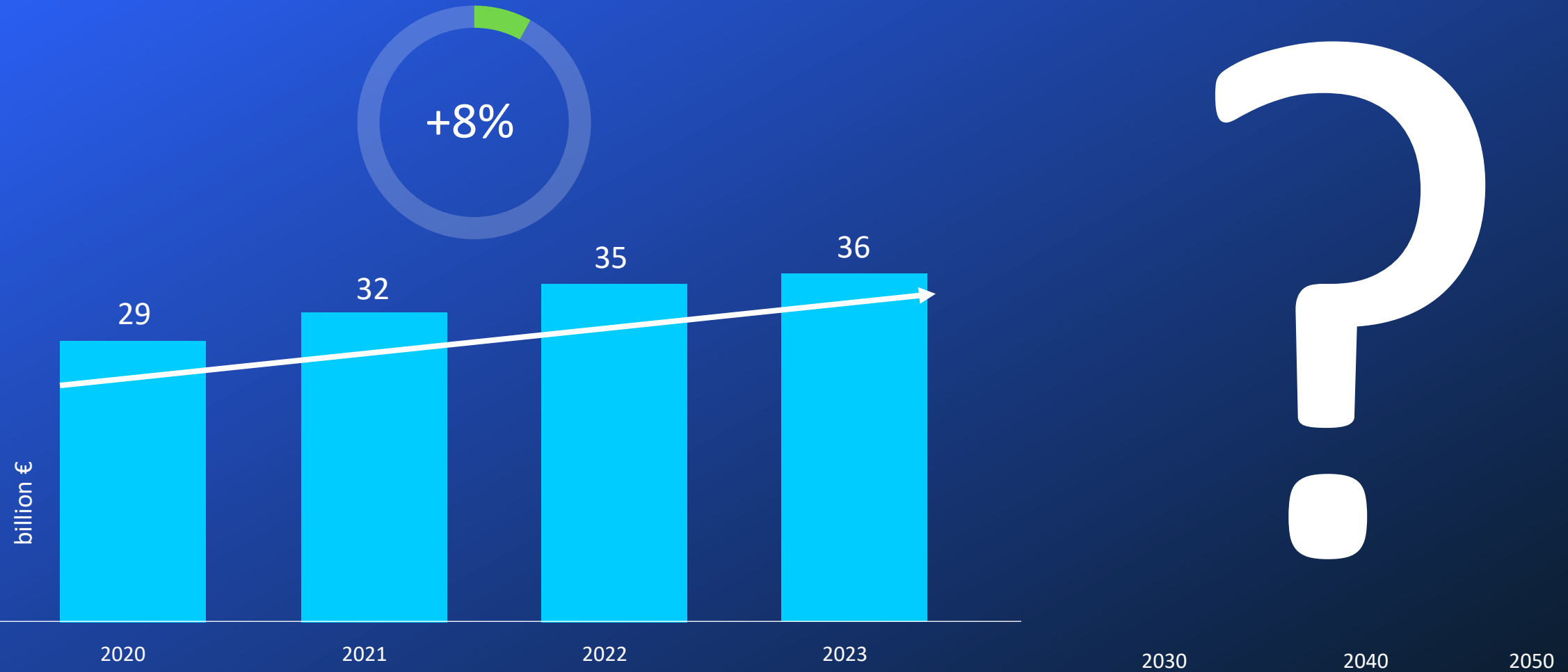


customer
expectations

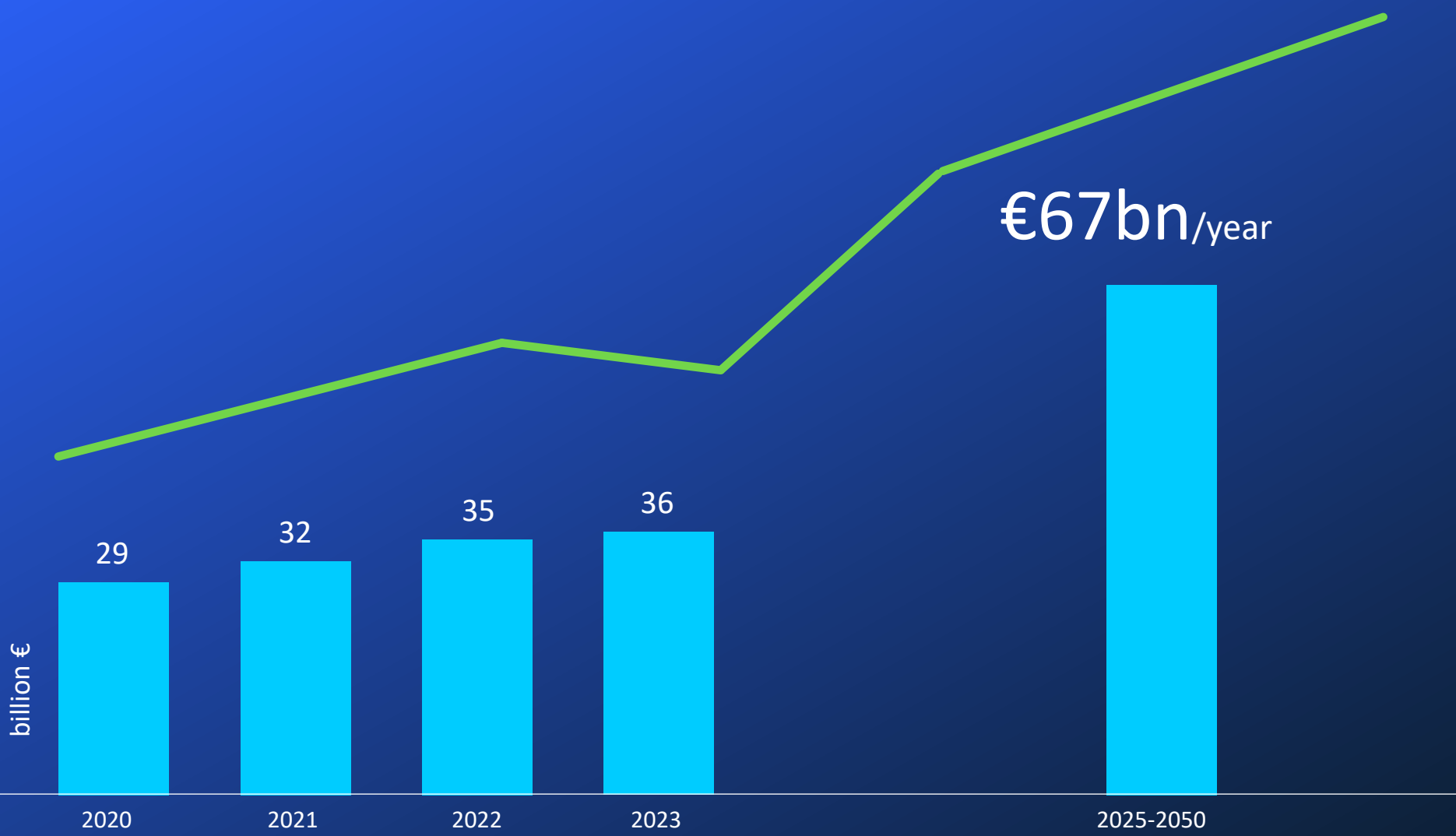


ageing
grids

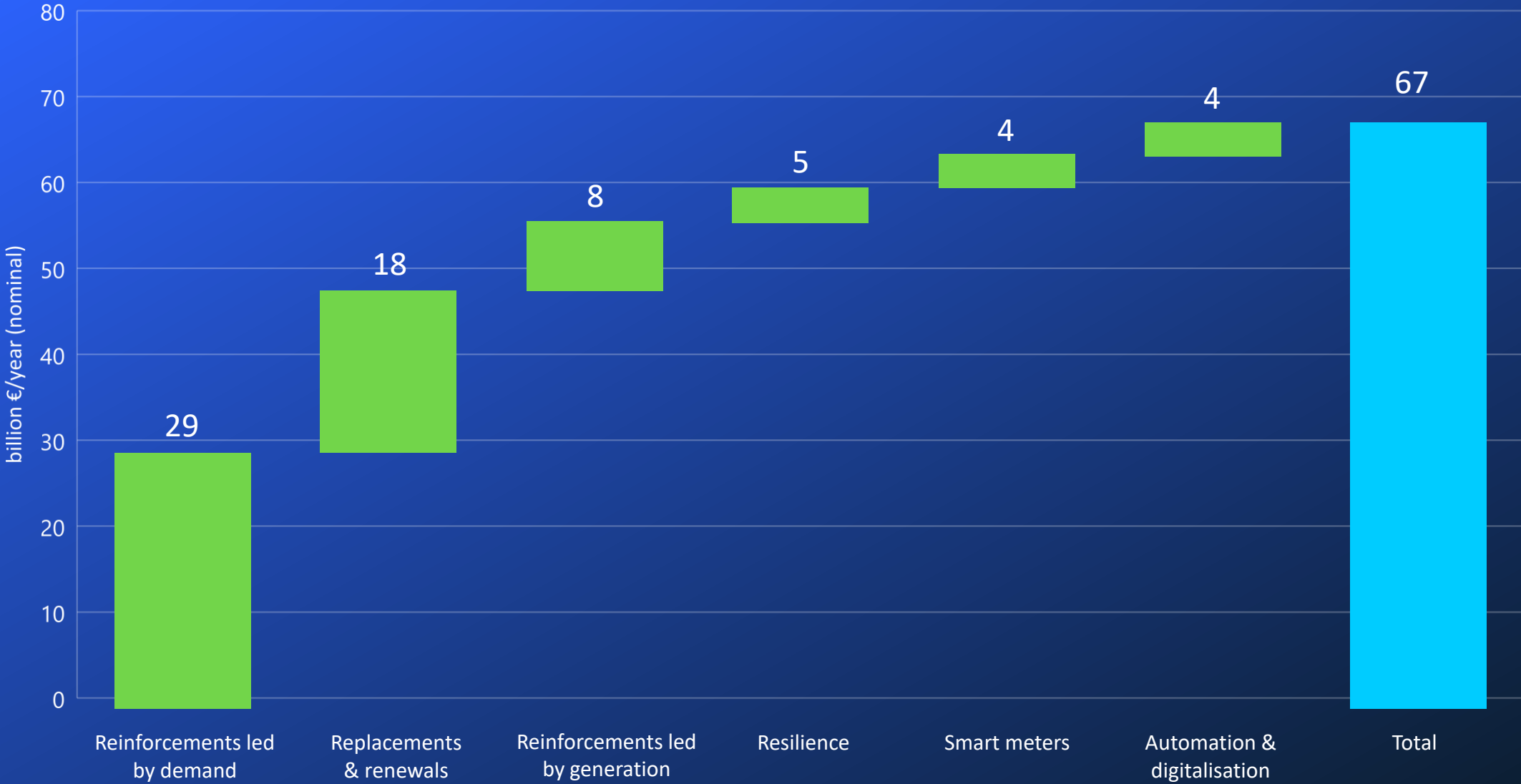
Is investment in distribution keeping pace?



Grids investment needs to double to keep up



This investment will serve multiple needs






€451bn

Fossil imports (2023)



€102bn

Road & rail (2021)



€67bn/year

Electricity distribution

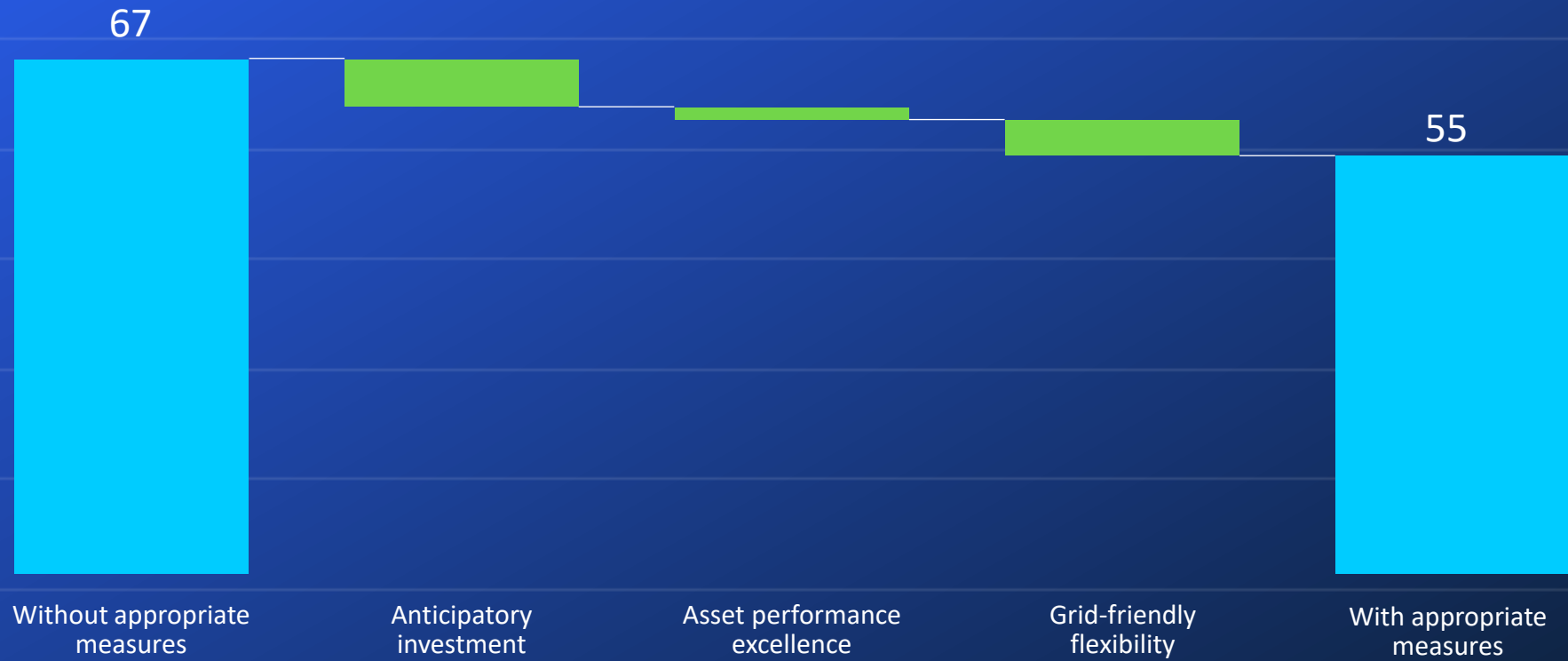
Together we can lower this cost...

€67bn

€55bn

€55bn

What does it take?



...and technology reducing it even more



Smart transformers

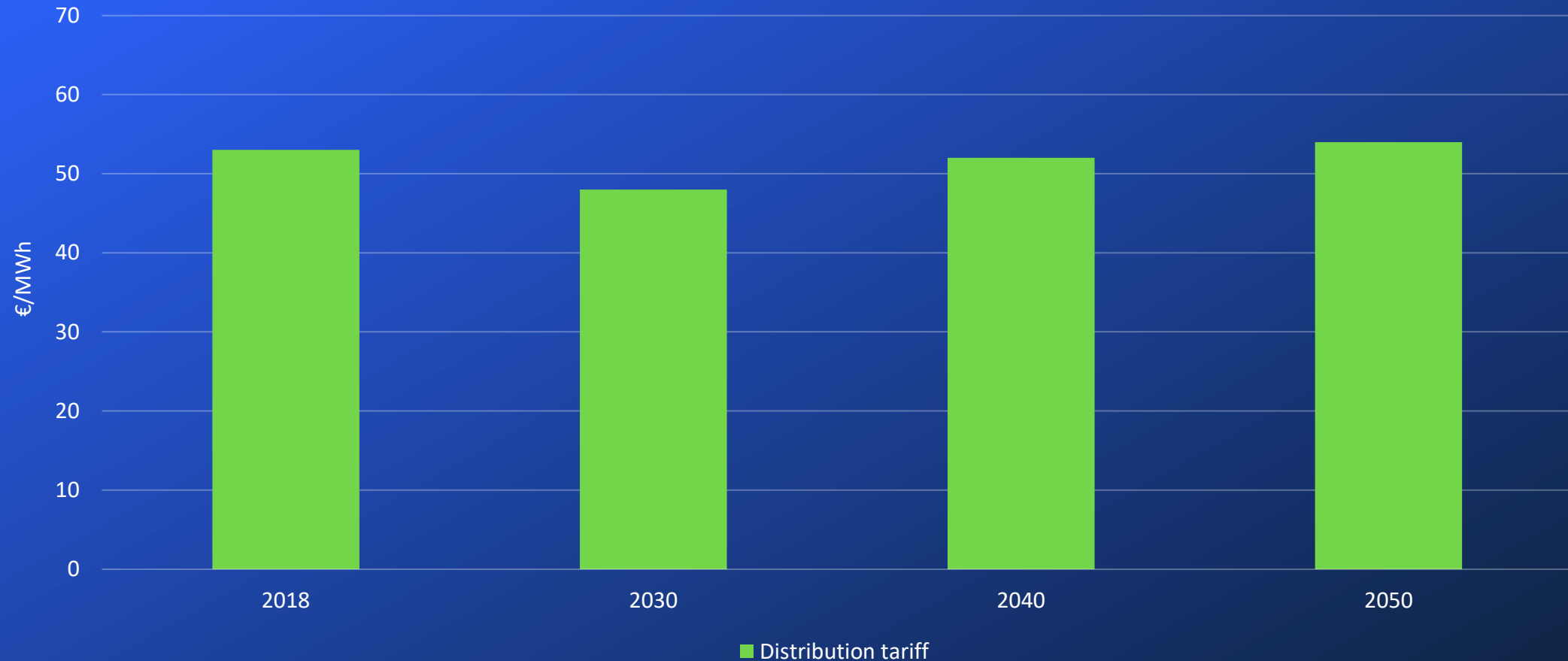


Dynamic Line Rating

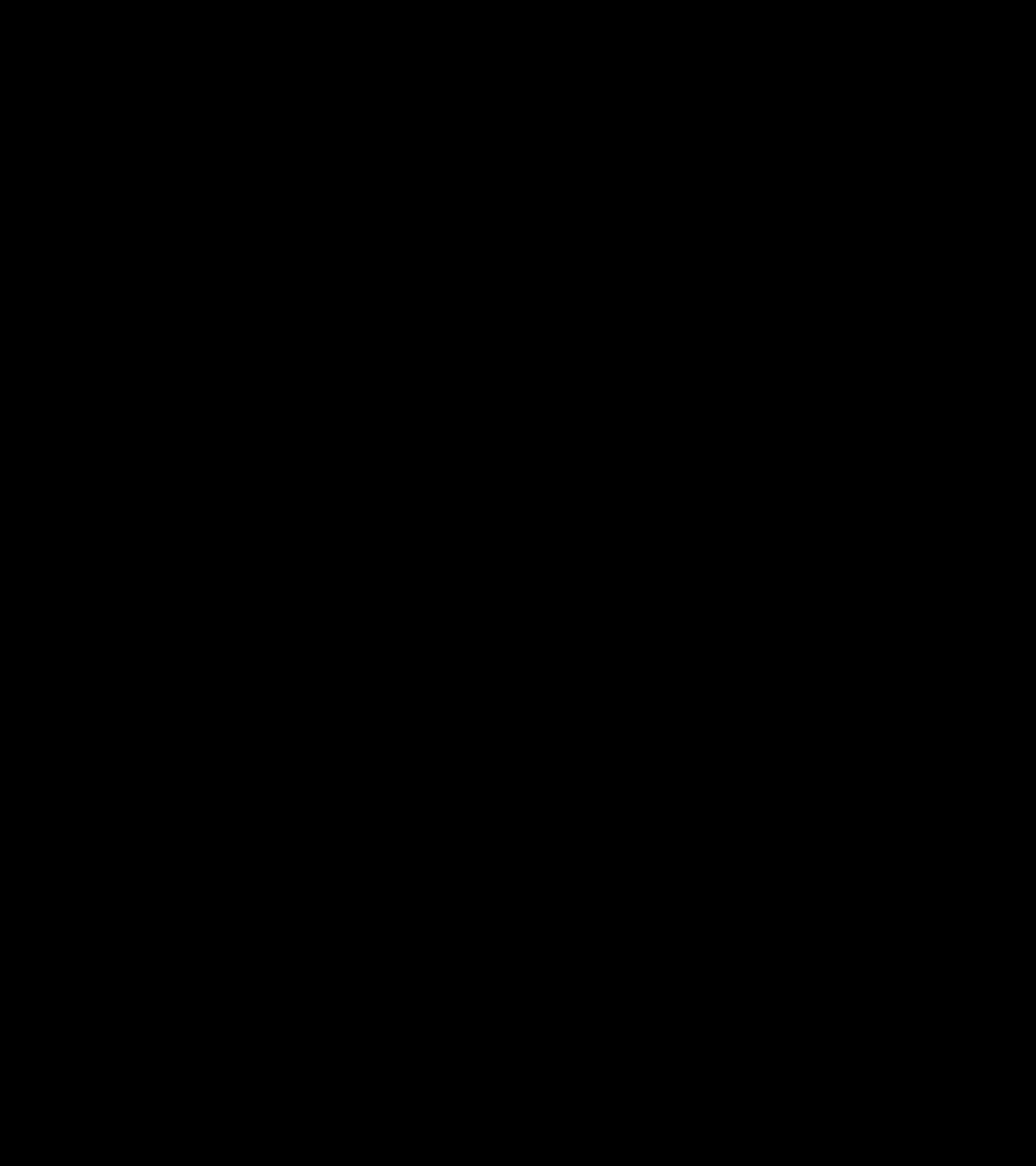


Digital twin

No major impact on distribution prices...



IF WE ELECTRIFY!



2023

€451bn

Total fossil imports



2023

€451bn

Total fossil imports

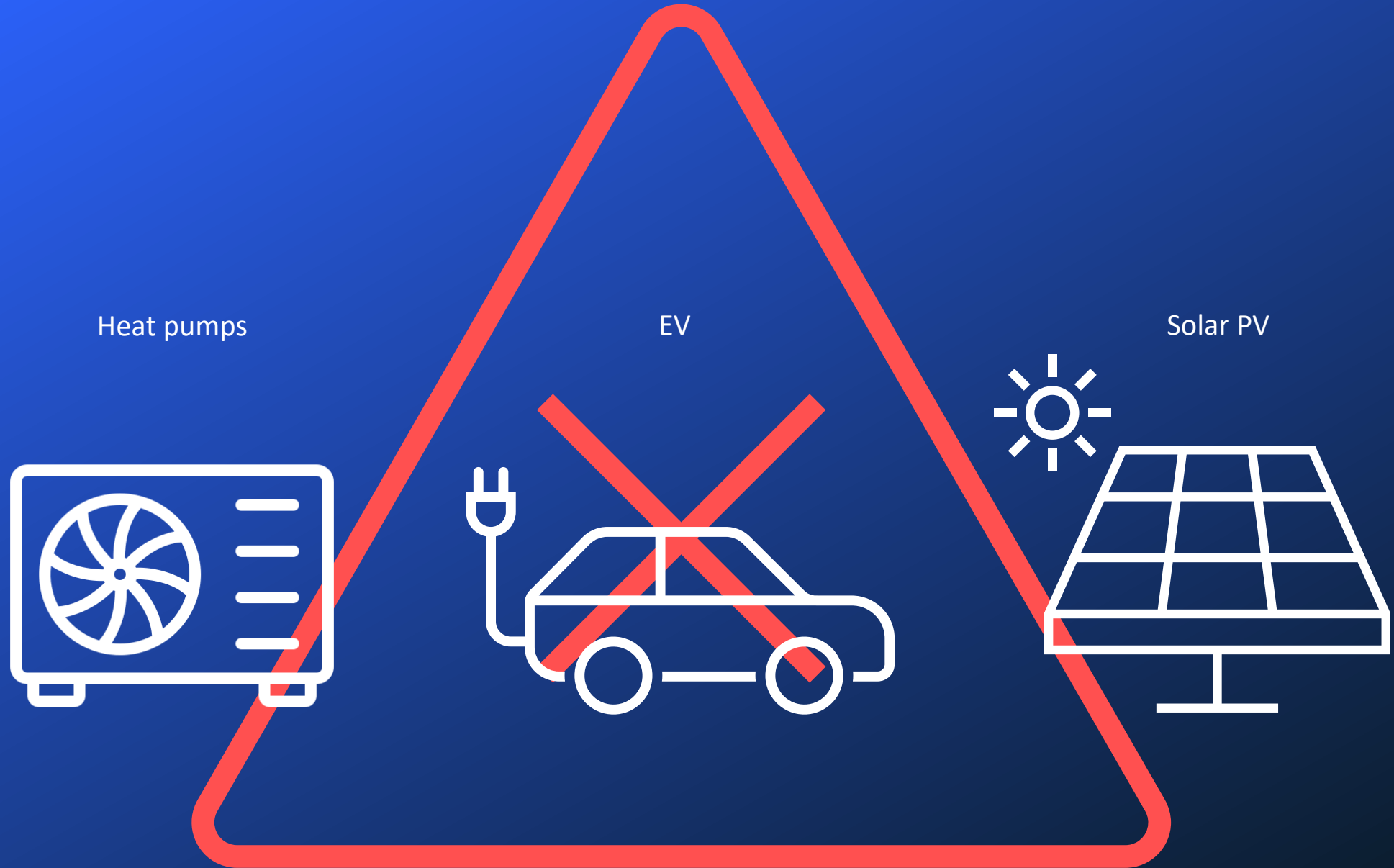
2041-2050

€142bn

Fossil imports' bill with electrification



Inaction puts the electric future in jeopardy



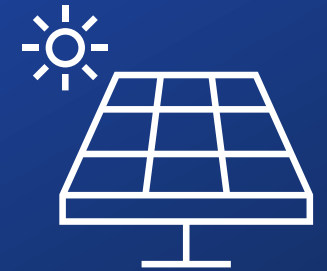
Heat pumps



EV



Solar PV



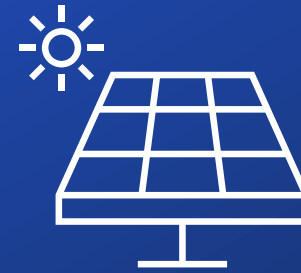
63 M

Not connected by 2050

Heat pumps



Solar PV



EV



73 M

Not connected by 2050

Heat pumps



EV



Solar PV



371 GW

Not connected by 2050



Time to act

REGULATION

Challenges

Regulation not ready for major investment push

Solutions

Investment costs and growing OPEX recognised regularly & competitive returns on capital

FINANCE

PERMITTING

SUPPLY CHAIN

SKILLS

Time to act

REGULATION

Solutions

Easily accessible funding, financing instruments and de-risking tools

Challenges

Funding, tariffs & financial tools don't allow sufficient investment

FINANCE

PERMITTING

SUPPLY CHAIN

SKILLS

Time to act

REGULATION

FINANCE

PERMITTING

Challenges

The needs and speed required must be reflected in permitting

Solutions

Streamline permitting with "bundled" approach (e.g. RES & grid expansion permits linked)

SUPPLY CHAIN

SKILLS

Time to act

REGULATION

FINANCE

PERMITTING

SUPPLY CHAIN

Challenges

More critical materials, +100% more transformers and +70% more kms of lines needed

Solutions

Upsize EU manufacturing, diversify supply chain, shorten procurement and delivery, improve recycling

SKILLS

Time to act

REGULATION

FINANCE

PERMITTING

SUPPLY CHAIN

Challenges

+2M workforce needed

Solutions

Create re-&-upskilling programmes & accelerate automation

SKILLS

