

The Evolution of the EU's energy system until 2050:
Electricity grids as central element of the energy transition in Europe

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Europe's *Man to the Moon* project

What is really behind it?



decarbonisation

growth

investment

integration

redistribution

Long-term policy goals and market design

How to make it happen?

Total system view and integral energy infrastructure planning

Integrated planning and operation for all carbon emitting sectors



Driving the European energy transition

What is the role of TenneT as Europe's 1st x-border TSO?

15
interconnectors

17
connected offshore
wind farms

42 Mio.
customers

99.99%
grid availability

23,500 km
total grid length

5,000
employees

23 bn. €
assets

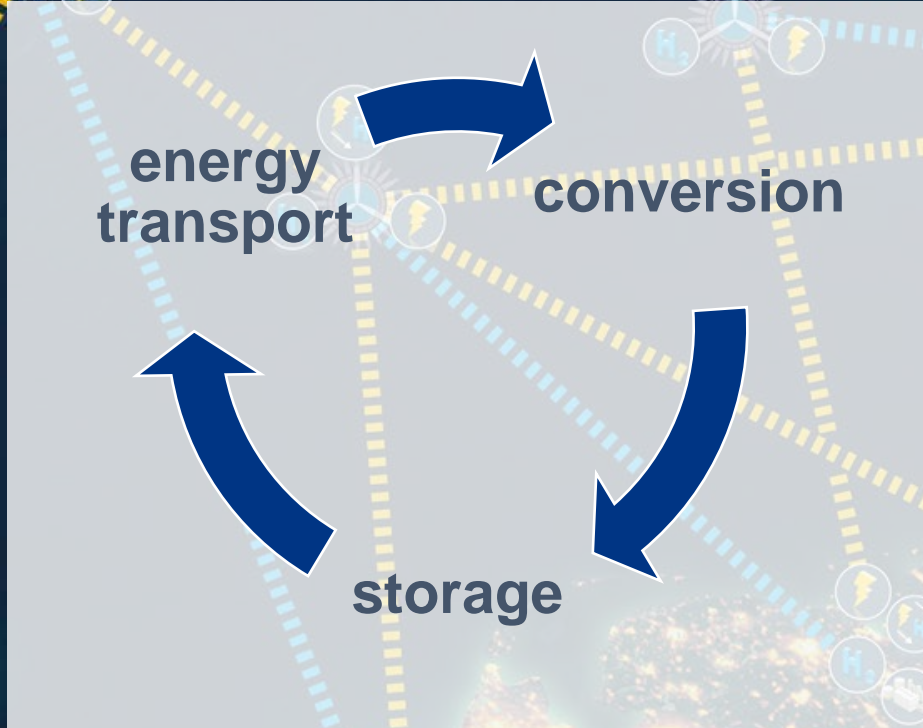
4-5 bn €
annual investment



Combining offshore wind and sector coupling



electricity



**gas /
hydrogen**

- 55-60%

100 GW

(inter)connection



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TenneT is a leading European grid operator (Transmission System Operator (TSO)). We design, build, maintain and operate the high-voltage electricity grid in the Netherlands and large parts of Germany and facilitate the European energy market. We are committed to providing a secure and reliable supply of electricity, today and in the future, 24 hours a day, 365 days a year and to playing our role in driving the energy transition. We transport electricity over a network of approximately 23,500 kilometres of high-voltage connections, from wherever and however it's generated, to over 42 million end-users while keeping electricity supply and demand balanced at all times. With close to 5,000 employees, we achieve a turnover of 4.1 billion euros and a total asset value of EUR 23 billion. TenneT is one of the largest investors in national and international onshore and offshore electricity grids. TenneT makes every effort to meet the needs of society. This will require us all to take ownership, show courage and connect with each other.

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