

# MARKET INSIGHTS GERMANY:

## The Importance of the Hydrogen Ecosystem for the German Energy Transition

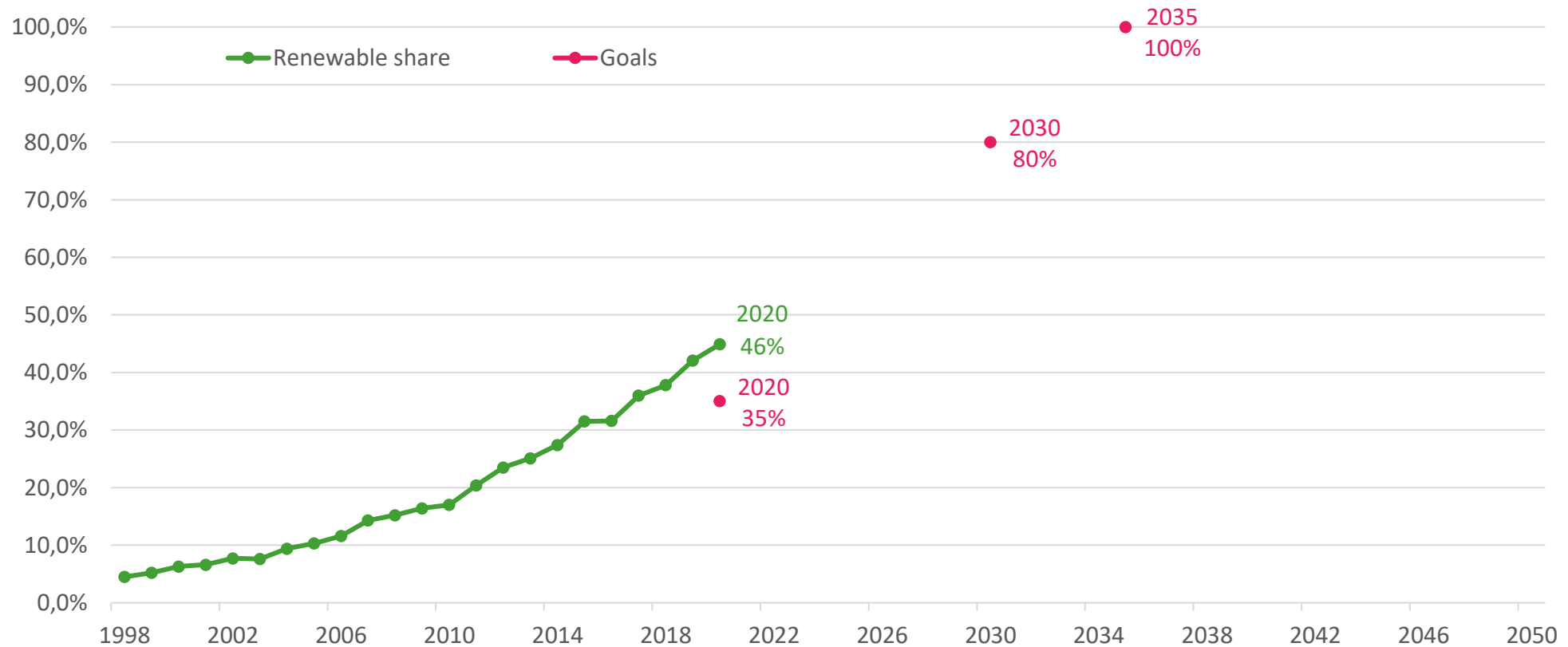
MARCH 2022

Heiko Staubitz  
Germany Trade & Invest



# Renewable Electricity in Germany

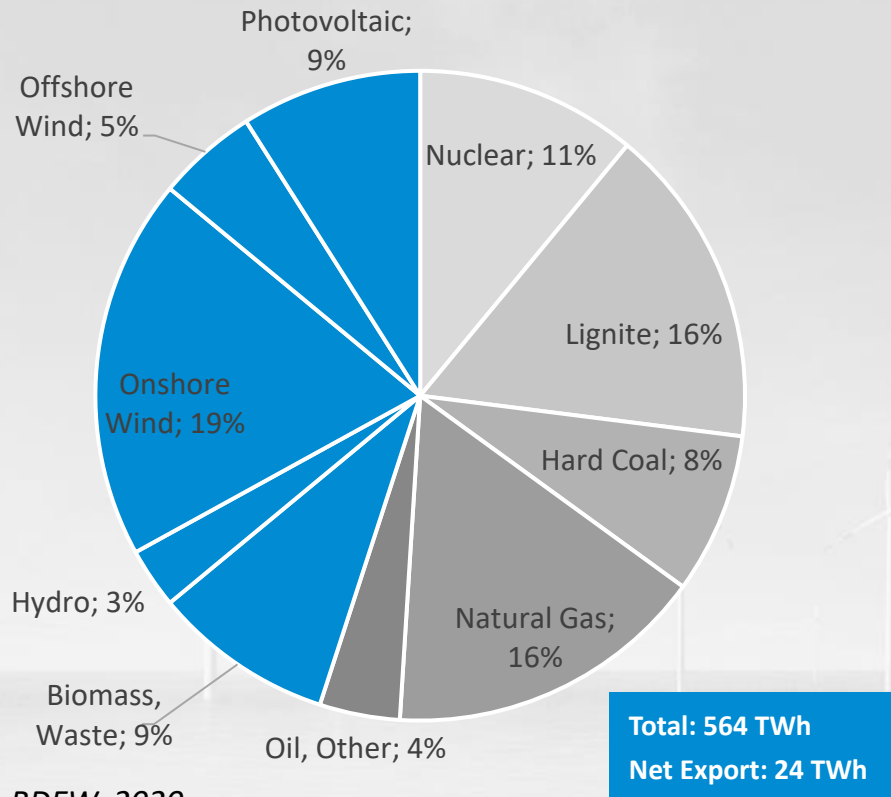
Renewable's share on Germany's gross electricity consumption growing beyond expectations



# Gross Electricity Generation in Germany

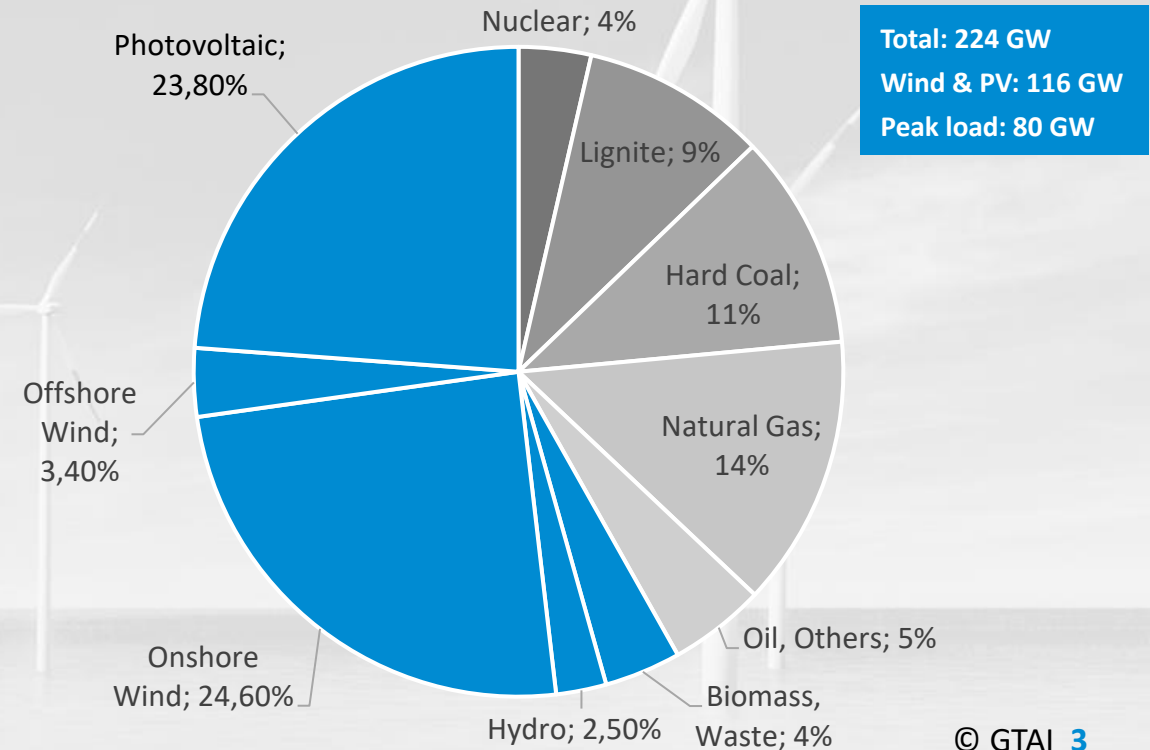
Renewables account for 46% of gross electricity generation

## Gross Electricity Generation 2020



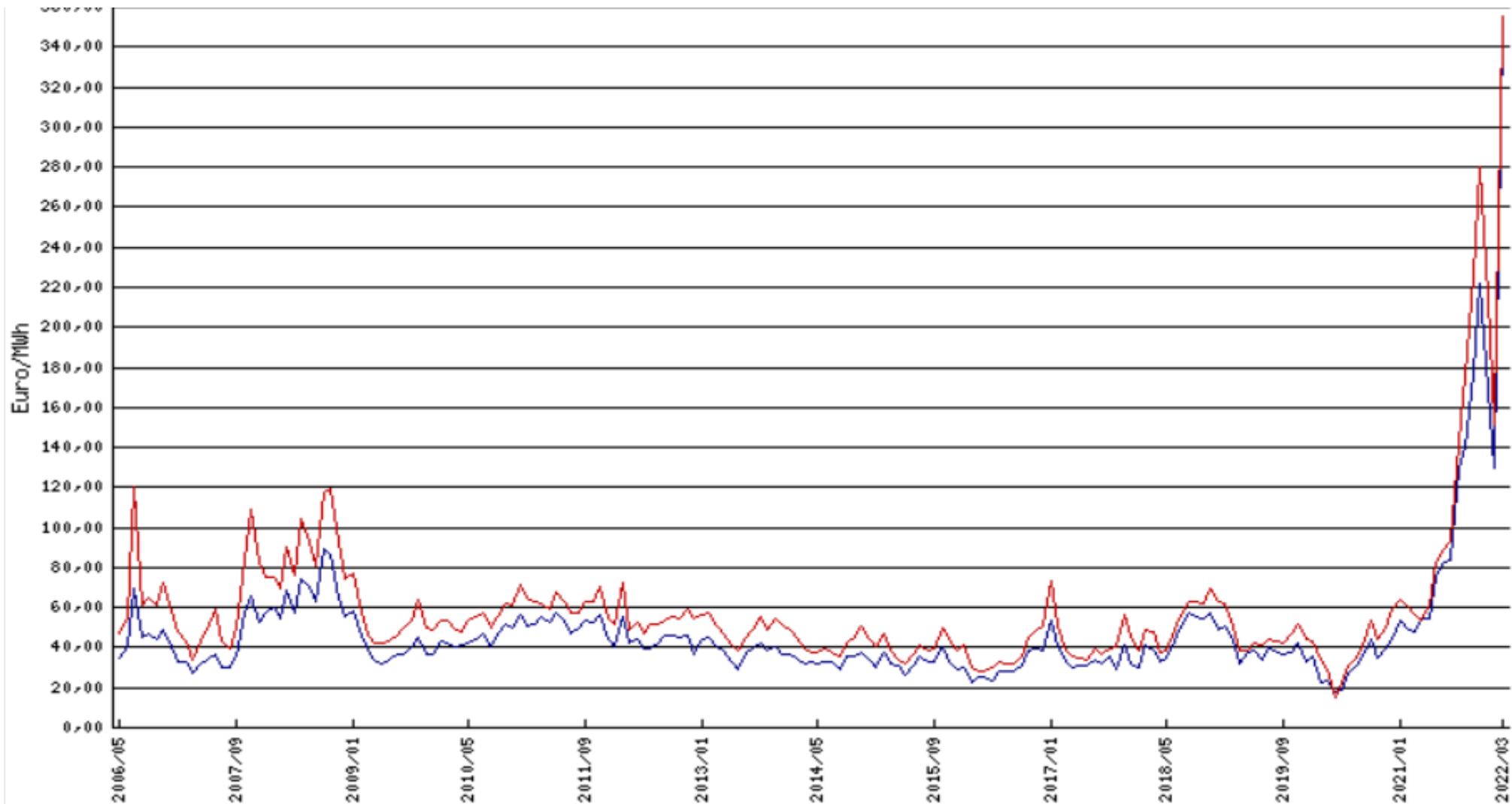
Source: BDEW, 2020

## Installed Capacity By Source 2020



© GTAI 3

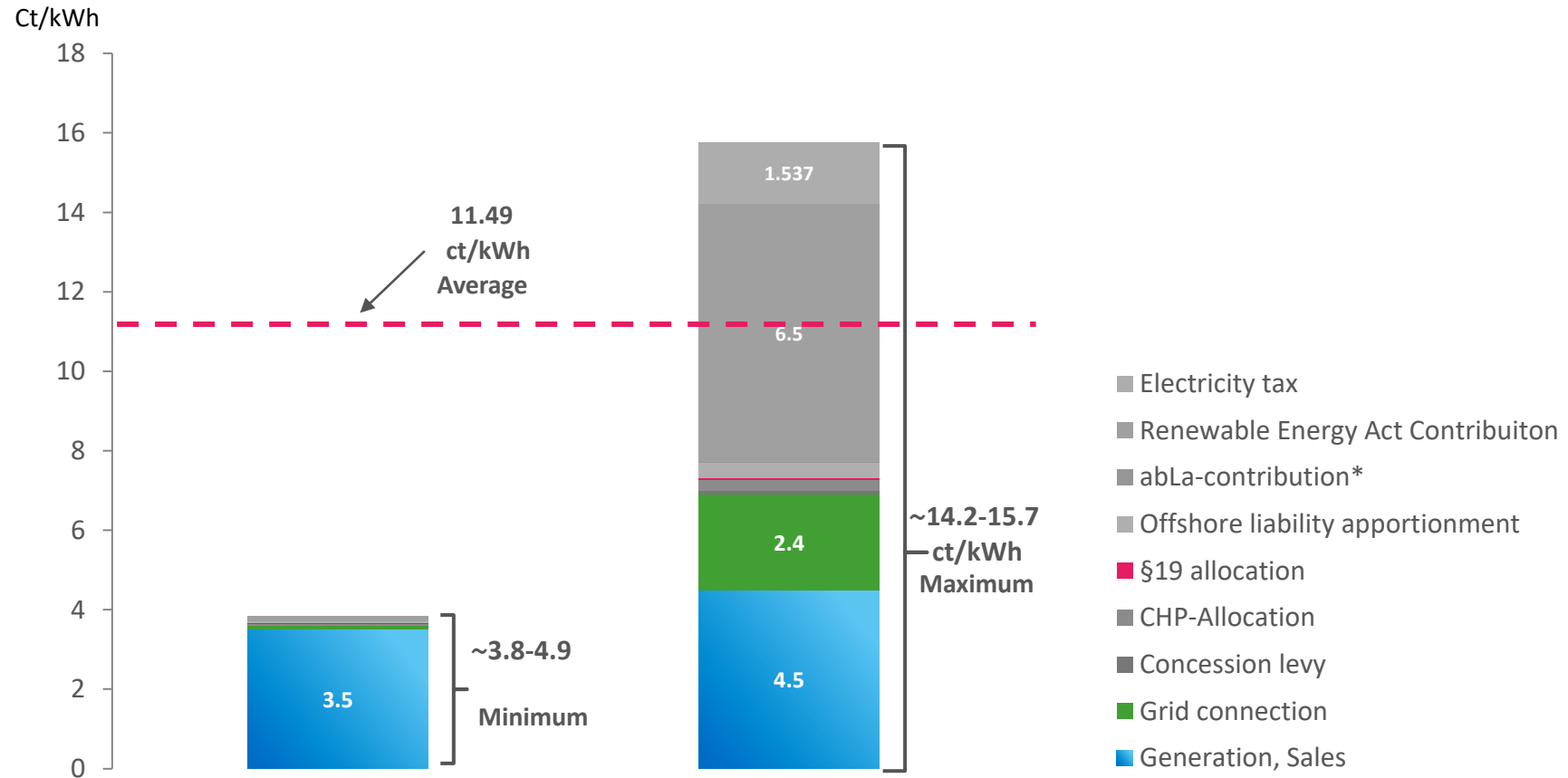
# Base and Peak Price Development EEX Spot Market



Source: European Power Exchange, [bricklebit.de](http://bricklebit.de); ACER High Energy Prices December 2021

# Electricity Price Range in Germany

Industrial consumers  $\geq 100$  GWh/a 1<sup>st</sup> half of 2021



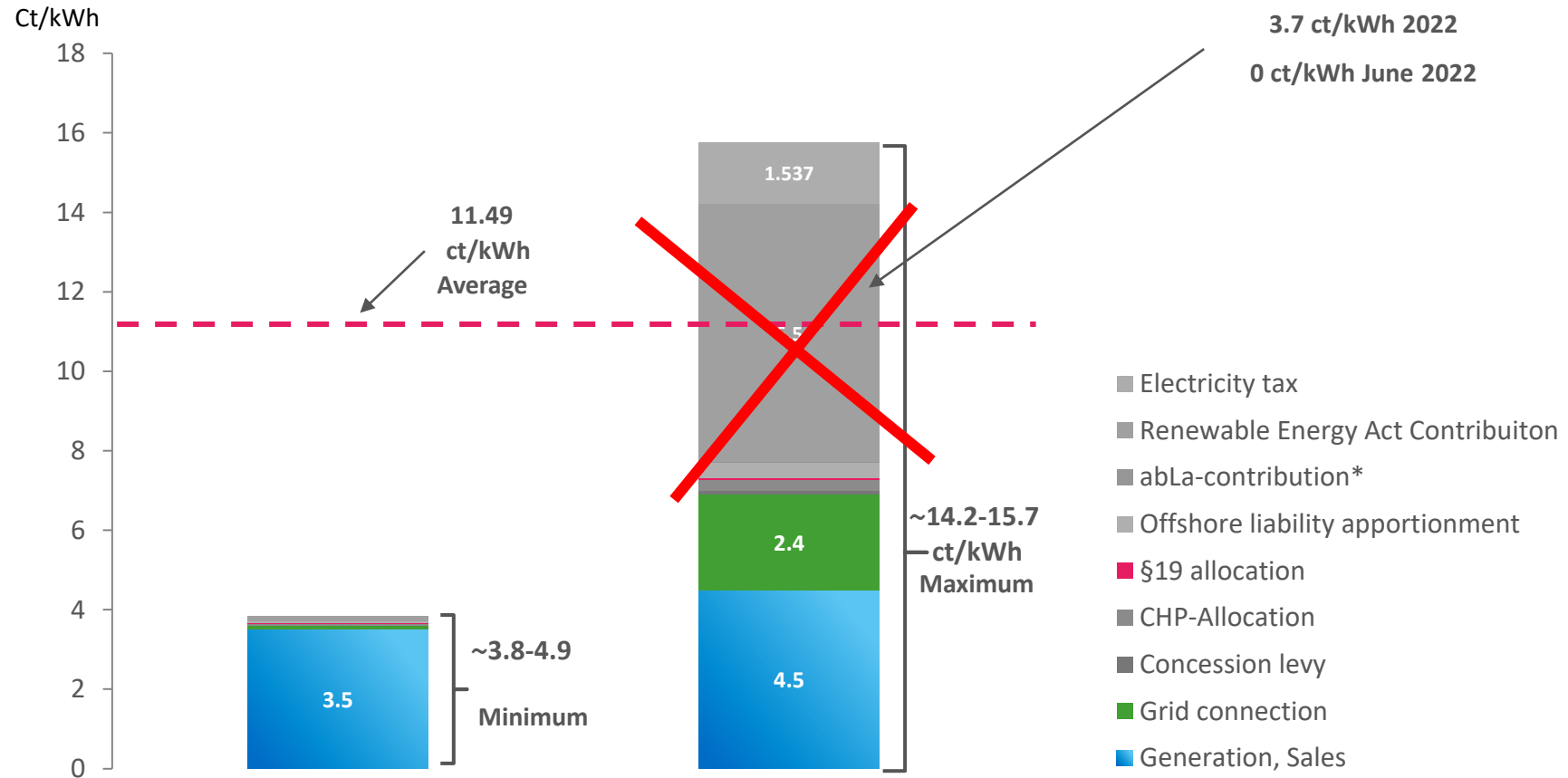
Source: BDEW 2020

© Germany Trade & Invest

www.gtai.com

# Electricity Price Range in Germany

Industrial consumers  $\geq 100$  GWh/a 1<sup>st</sup> half of 2021



Source: BDEW 2020

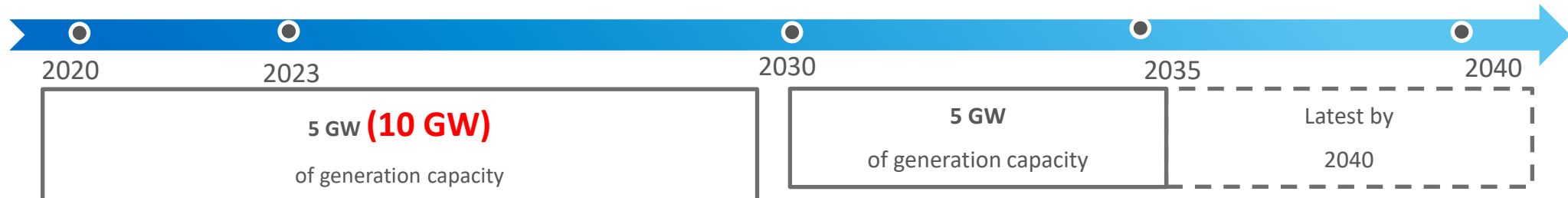
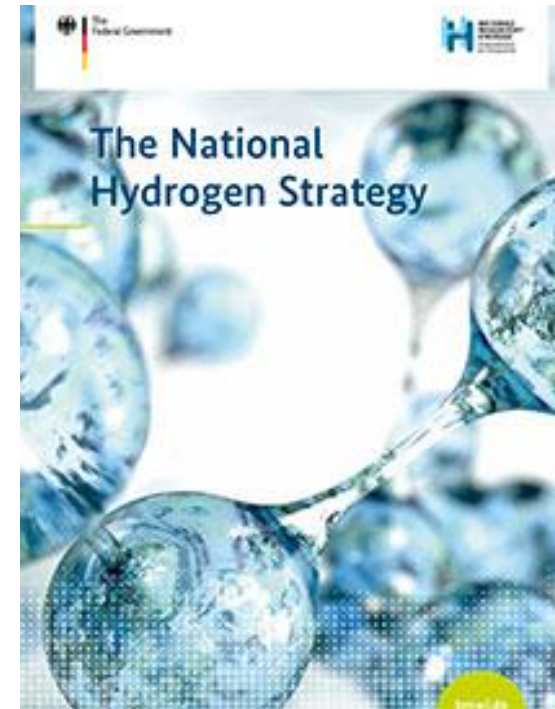
© Germany Trade & Invest

# Germany's National Hydrogen Strategy

Hydrogen will become a central pillar in achieving Germany's climate protection targets

## Goals of the National Hydrogen Strategy

- Invest EUR 9 billion: EUR 7 billion nationally + EUR 2 billion internationally
- Develop a policy framework that encourages investments
- Determine concrete implementation measures
- **Phase 1 2020-2023:** Market ramp up and harnessing of opportunities
- **Phase 2 2023-2030:** Strengthen market ramp up nationally and internationally



# Germany's National Hydrogen Strategy

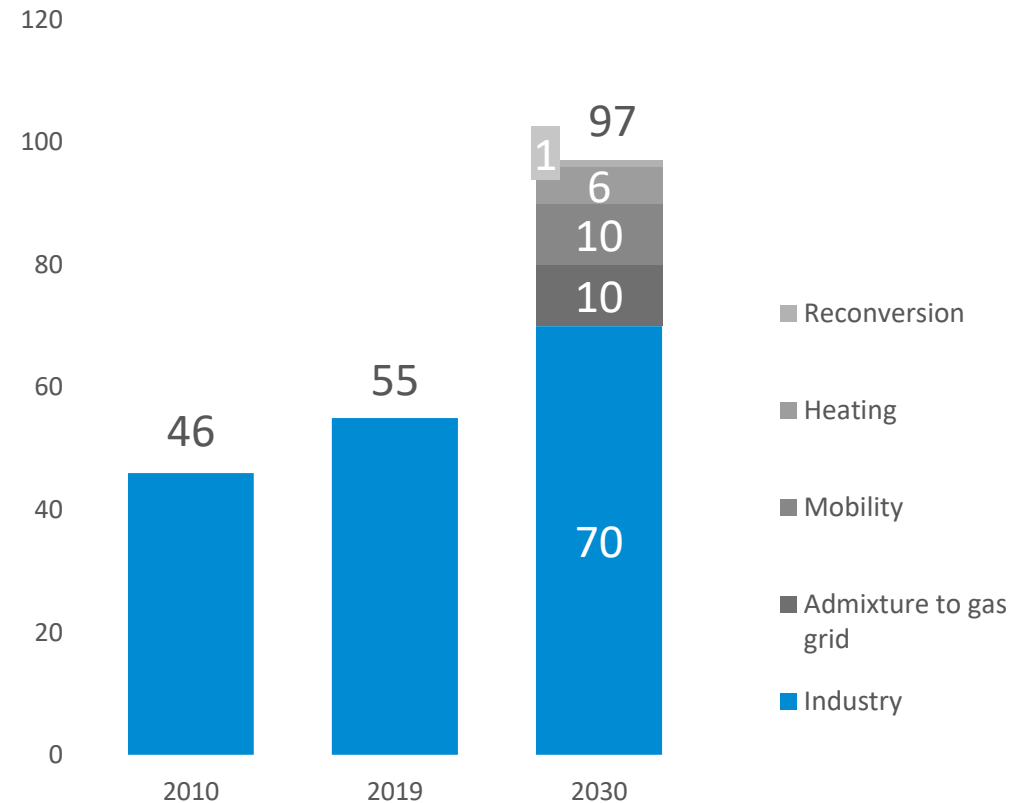
Hydrogen will become central pillar in achieving Germany's energy transition

## Goals of the National Hydrogen Strategy

- The Federal Government expects that around 90 to 110 TWh of hydrogen will be needed in Germany by 2030
- Green hydrogen will be especially important in decarbonizing industries such as steel and chemical
- Germany as an energy importing country will also need to import hydrogen in the future

Source: BMWi, 2020

## Hydrogen utilization in Germany (in TWh)

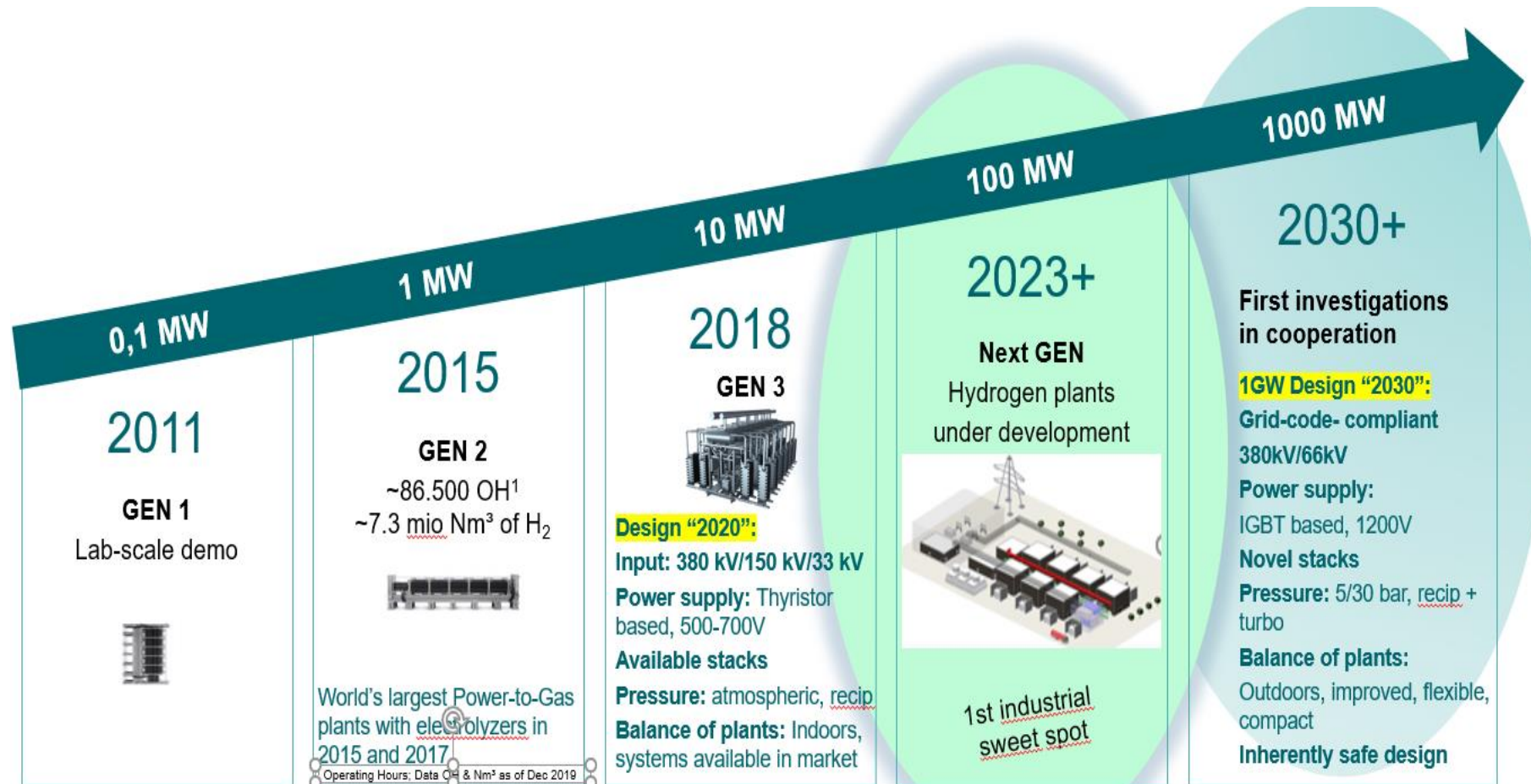


Source: BMWi, 2020; e.venture, 2020



# H2 Production Technology Scales Up

E'lyzer roadmap: from 100KW devices to 1GW plants



Source: Siemens AG 2022

© Germany Trade & Invest

www.gtai.com

9

# ドイツ貿易・投資振興機関(Germany Trade & Invest) コンタクト

## GTAI 東京事務所



岩村 浩 (Hiroshi Iwamura)

日本代表ダイレクター

E-mail: [hiroshi.iwamura@gtai.com](mailto:hiroshi.iwamura@gtai.com)

TEL: 03-5275-2071

## GTAI ベルリン本部



ハイコ・シュタウビッツ(Heiko Staubitz)

エネルギーインフラ & 水素産業担当

シニア・マネージャー

E-mail: [heiko.staubitz@gtai.com](mailto:heiko.staubitz@gtai.com)

TEL: +49-30 200 099-226