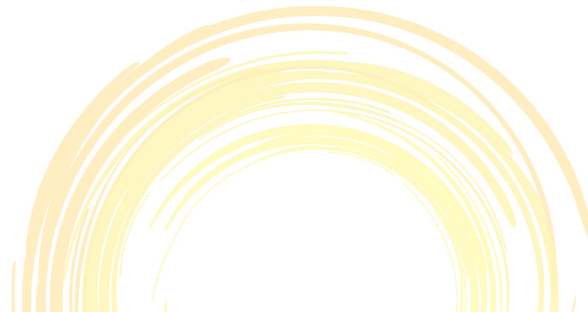


# **Fast Development of Solar PV in the Netherlands**

## **Challenges and Opportunities**

Intersolar Europe Conference 2021  
Amelie Veenstra, policy director Holland Solar



# Dutch Climate Agreement (2019)

49% CO<sub>2</sub> reduction in 2030



+



# Goals Solar PV

Commercial Solar + Wind  
35 TWh in 2030

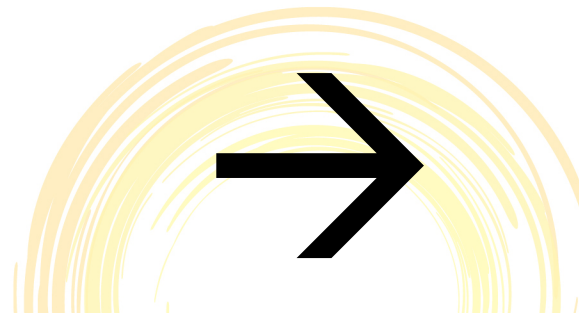


*Bron: change.inc*

Solar PV residential  
7 TWh in year 2030



*Bron: ad.nl*



Nationaal Programma  
**RES** Regionale  
Energie  
Strategie

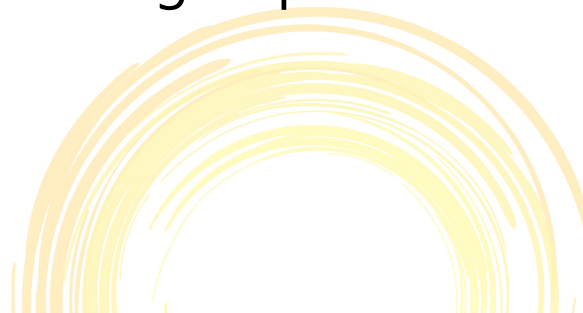


# Regional Energy Strategies



- Cooperation between municipalities
- 30 in total
- RES 1.0 outcomes:
  - Total planning of 55 TWh
  - Preference for Rooftop
  - Local ownership 50%
  - Landscape and ecology performance
- Start RES 2.0 phase (ready in july 2023)
  - Spatial planning and permitting requirements ready
  - Preparation for 2050
  - New goals

Nationaal Programma  
**RES** Regionale  
Energie  
Strategie





# Support schemes NL

You are here: [Home](#) > Noordzeeboulevard 501 in Maasvlakte, Rotterdam

**Sun on the Slufter**  
Noordzeeboulevard 501  
in Maasvlakte, Rotterdam

Expected

Bid Books can only be ordered in the Dutch language. We recommend cooperating with a Dutch partner for more information. Contact us for more information and/or translations.



Source: <https://www.bidbook.eu/en>

## Commercial building & Utility scale

SDE+ → SDE++

- Feed-in tariff 15 yrs

Tender system with budget cap  
(5 billion a year)

Competition with other renewables  
(+) and CO2 reducing techniques

Energy Investment Allowance

- > 25 kWp
- deduct 45% of the investment costs from the fiscal profit

Tendering from governmental sites  
10 pilots

## Small users (residential & SME)



Netmetering small consumers

- Slow phase out 2023- 2031 (?)

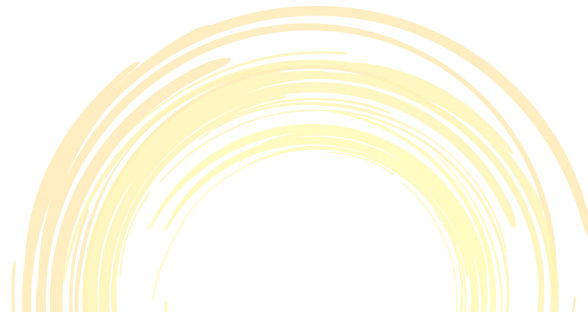
"Postal code scheme for coöperatives"

Special Feed in tariff and budget

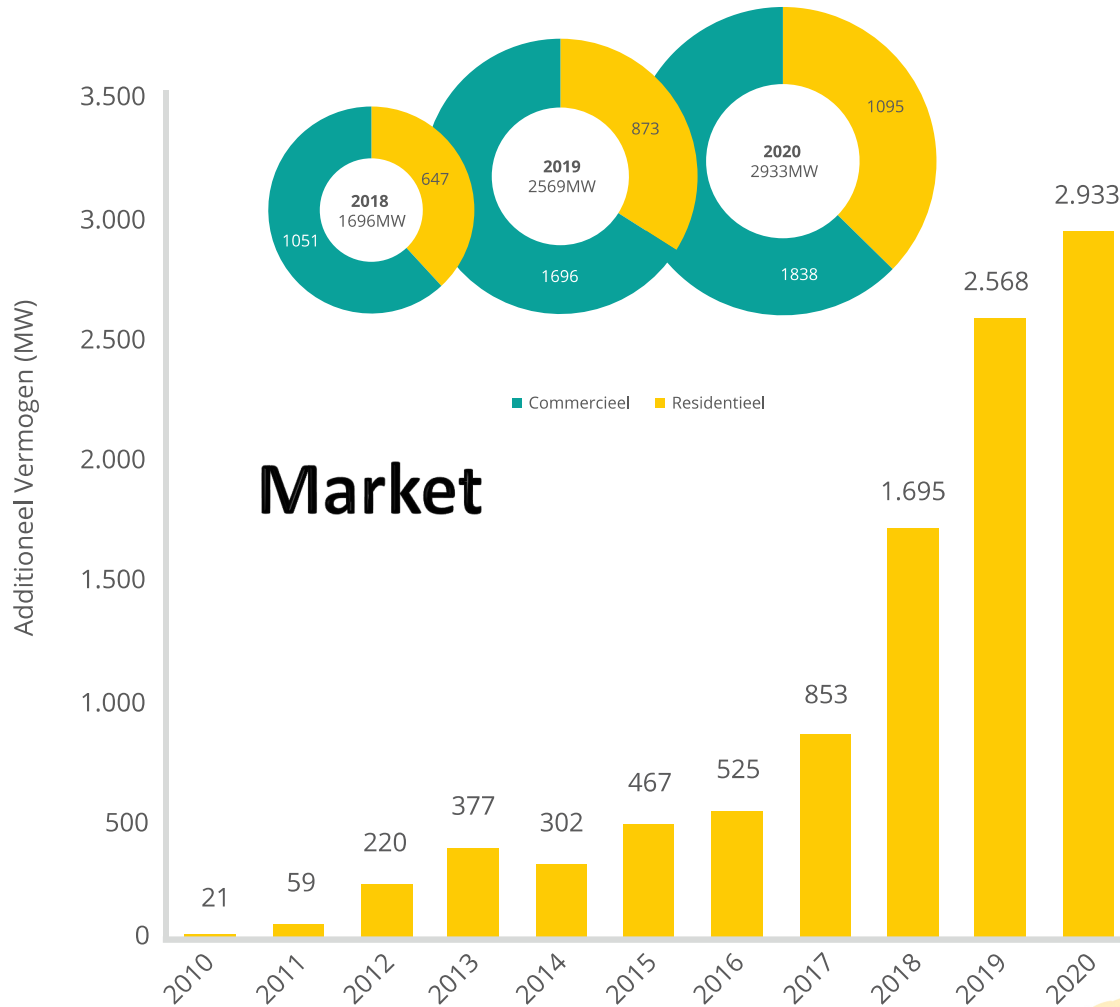
Extra investment subsidy for SME i.a.  
(> 5 Mwh/yr use)

Sometimes also local subsidies and loans possible

- In the mean time: rapid growth.....

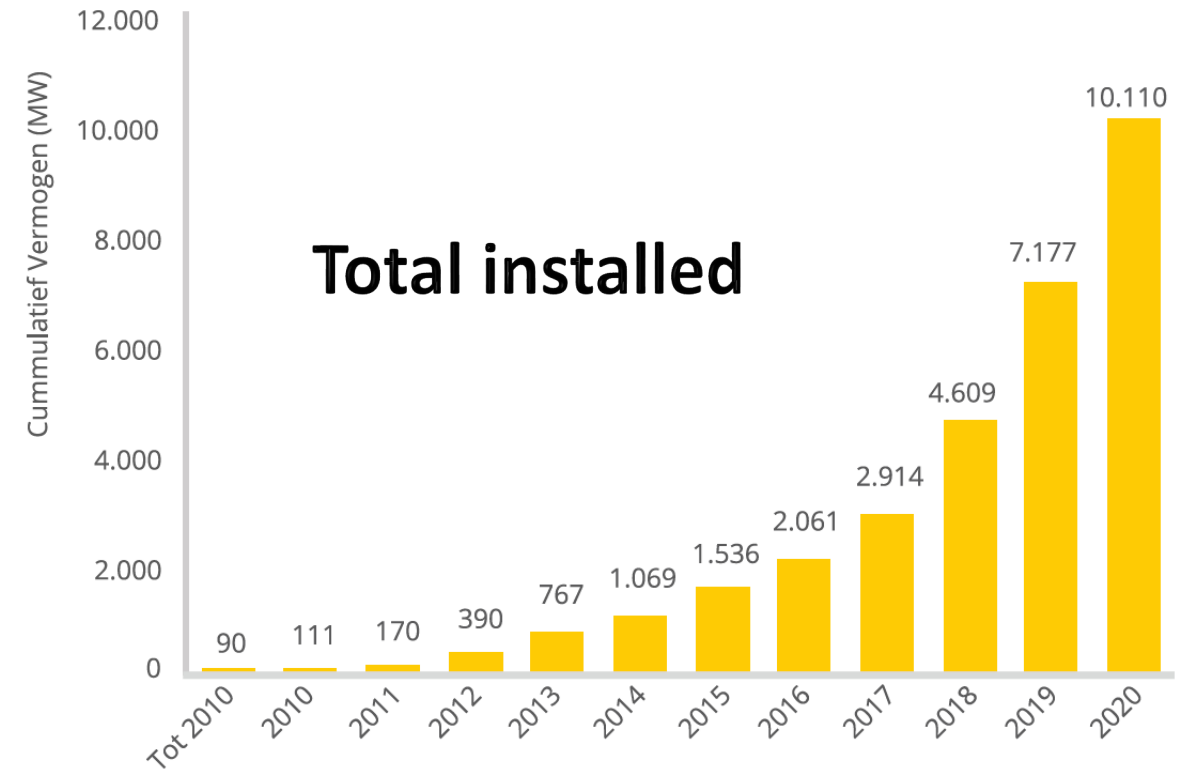


Sources:  
 Nationaal Solar Trendrapport 2021  
 CertiQ.nl  
 Dutch New Energy



Figuur 1

Jaarlijks nieuw geïnstalleerd zonnestroomvermogen in Nederland.<sup>3,4</sup>



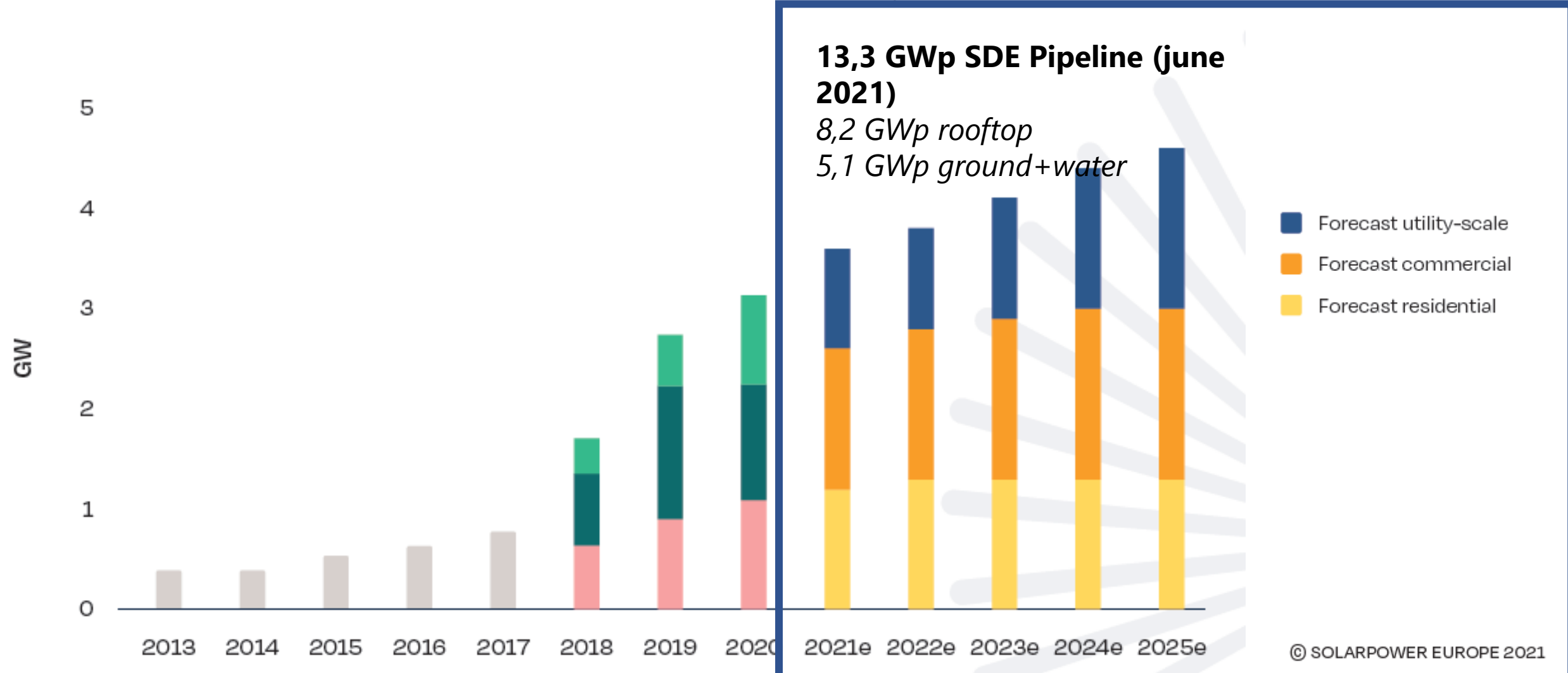
Figuur 2

Totaal geïnstalleerd zonnestroomvermogen in Nederland.

**July 2021: + 1,37 GW (SDE) + 0,8 GWp (?) residential**

# Forecast market 2021-2025

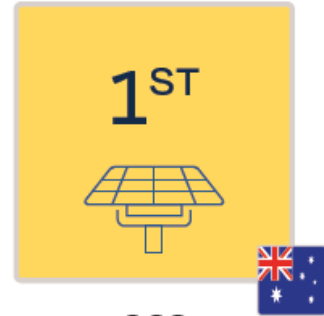
FIGURE GW10 NETHERLANDS SOLAR PV MARKET SCENARIOS 2021-2025, BY HOLLAND SOLAR







Australia



826  
Watt/capita

Germany



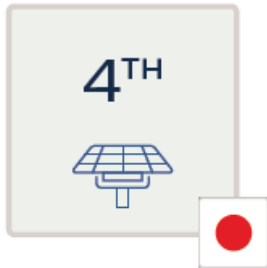
652  
Watt/capita

Netherlands



603  
Watt/capita

Japan



563

Belgium



540

Switzerland



354

Italy



350

Greece



315

Spain



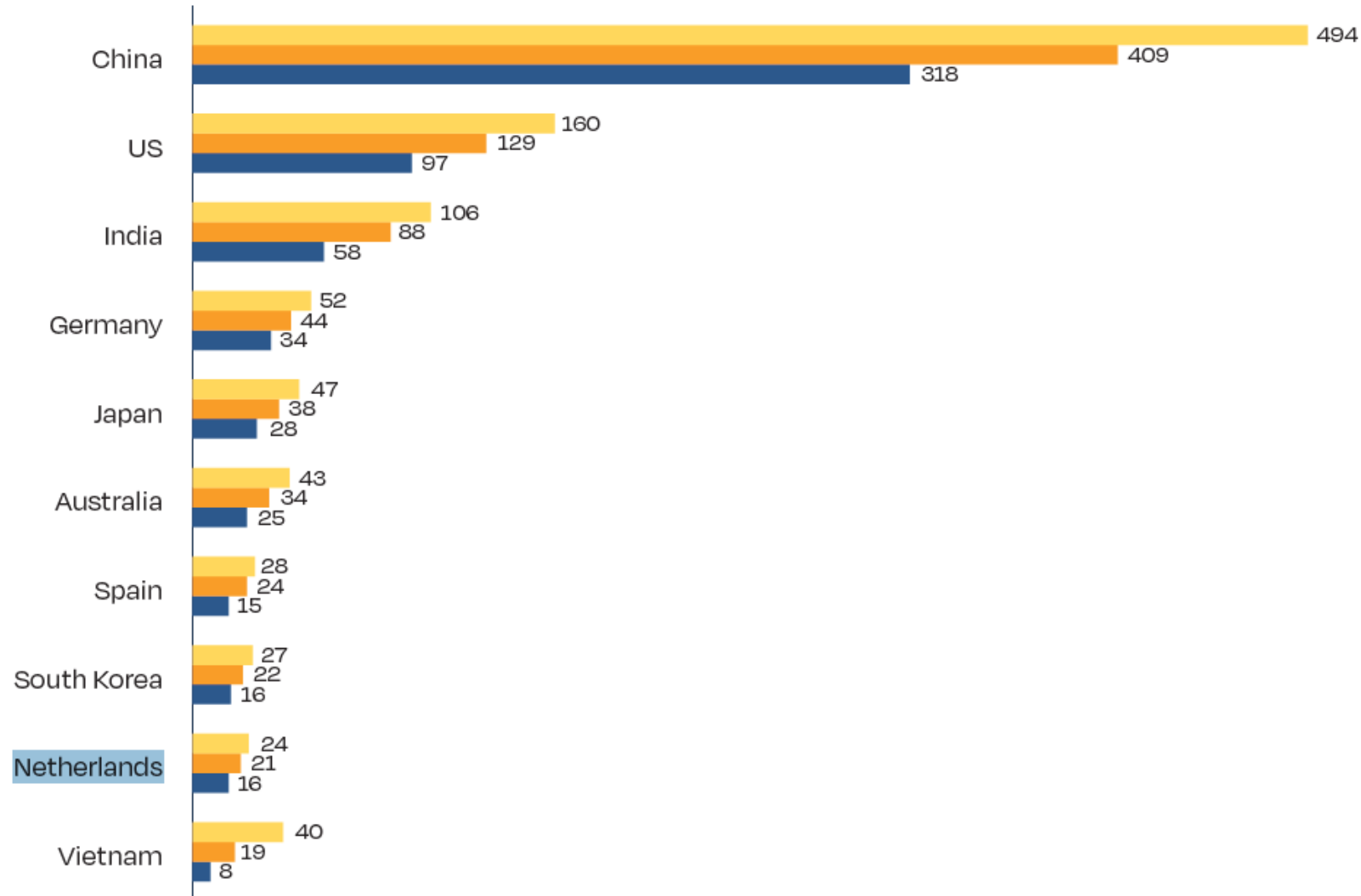
303

Israel

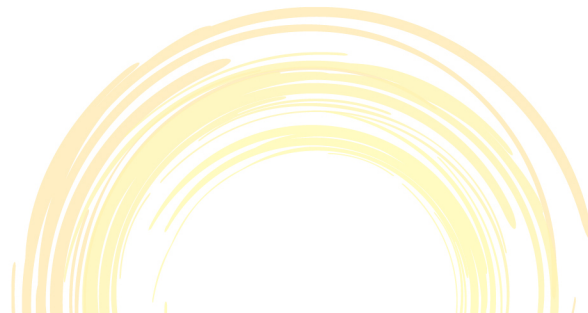


301

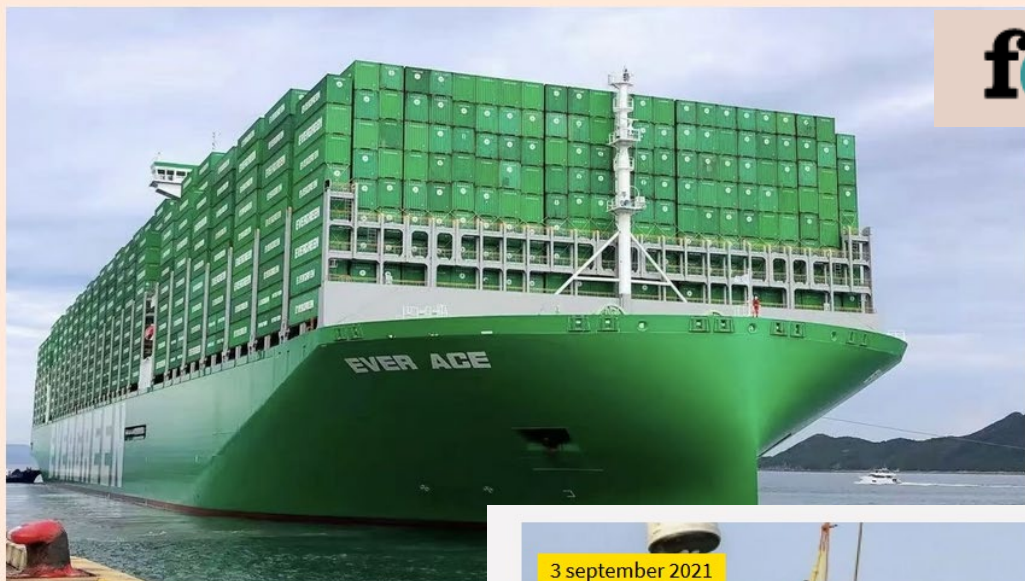
# Top 10 Markets 2021-2025



- Running into issues....



fd.



Het nieuwe vlaggenschip van Evergreen, de Ever Ace

3 september 2021



**SOLAR**  
MAGAZINE

Stroomnet Gelderland en Flevoland vol: TenneT meldt congestie bij alle 150 kilovolt stations



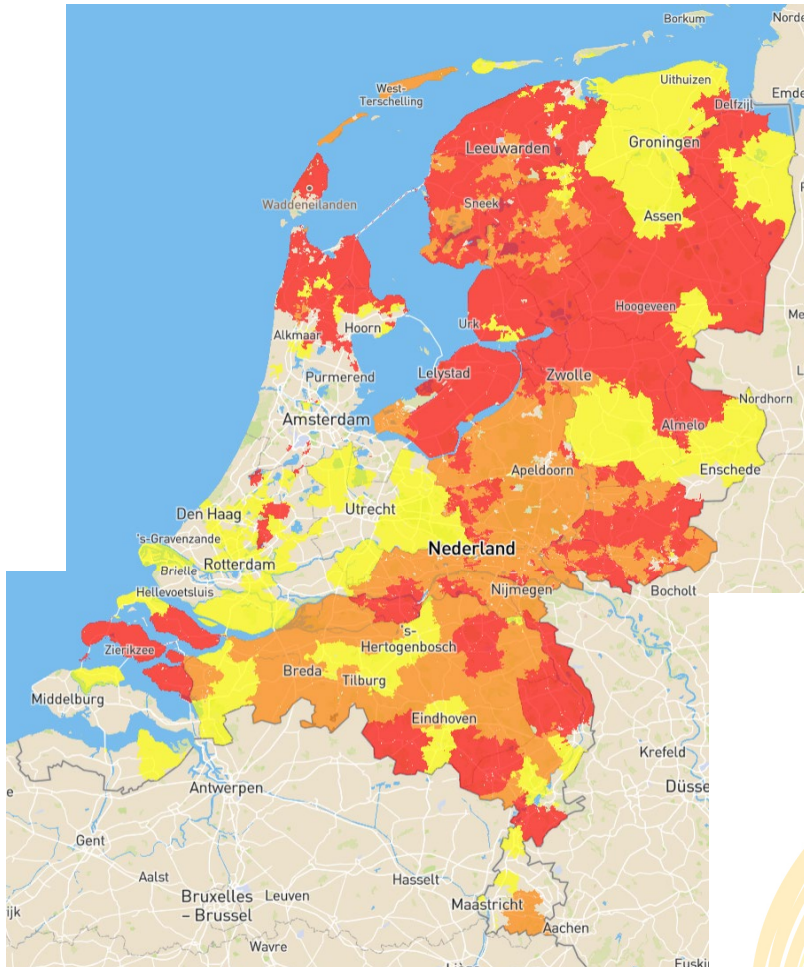
Holland



XPCC is behalve een bedrijvenconglomeraat een millie waarmee het kwaad kersen eten is. Een van de bazen is de man die eerder Tibet met harde hand onder controle bracht. Illustratie: Rhonald Blommestijn voor Het Financieele Dagblad

fd.

# Congestion situation august 2021



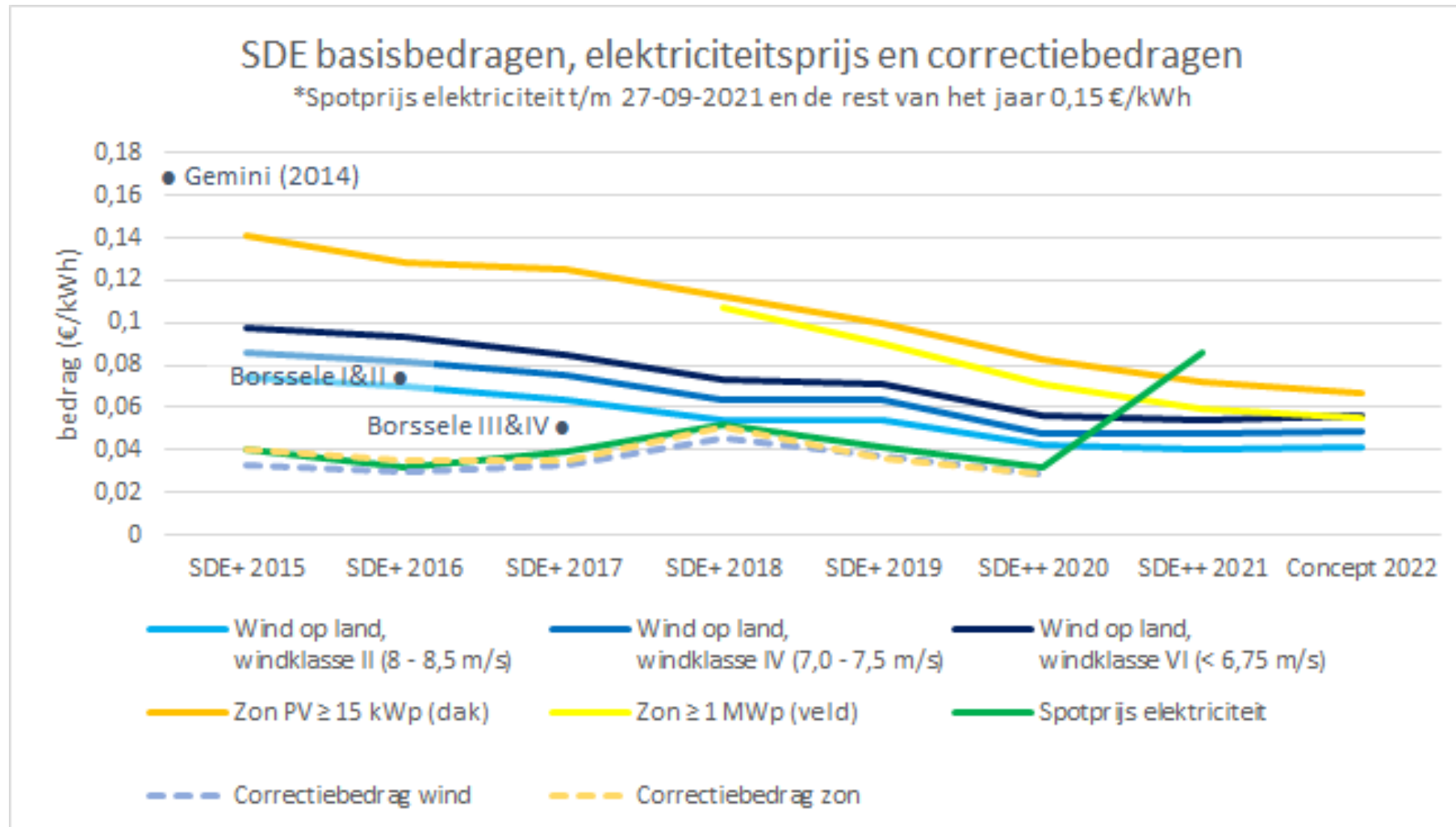
- No new grid connections in red areas
- No new SDE grants in red areas
- Grid reinforcements takes 3-10 yrs
- New tariff scheme not yet in place

## Short term solutions

- Use 40% reserve grid capacity
- New rules congestion management
- Smart inverter functions
- Cable pooling
- "70%" grid connection
- Support system storage and dsm



# Rapid Changes in electricity price



Source:  
@EmielvanDruten



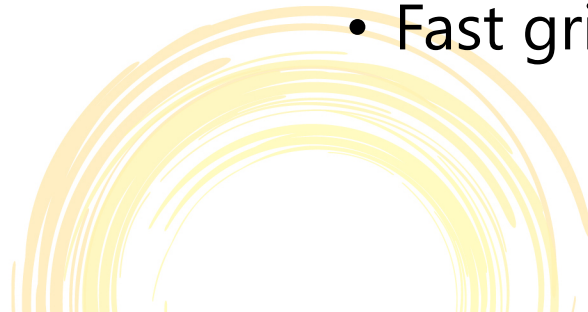
# Threats and opportunities

## Challenges

- End of SDE++ scheme for wind and solar onshore
  - Possibly in 2022
  - Definitely in 2025
  - High competition of CCS
- Energy price uncertainties
  - Challenge and chance
- Access to land and permitting
- Getting timely grid connection and transport
- Public opinion issues

## Opportunities (key lobby topics)

- Electrification of industry
- Higher demand/ goals on renewable
  - 55 TWh in 2030
  - 55% CO2 reduction
- New support scheme securing investments
  - Contract for Difference
- Incentives for “flex” and storage
- Fast grid reinforcement + smart



# If the plan comes together...

