

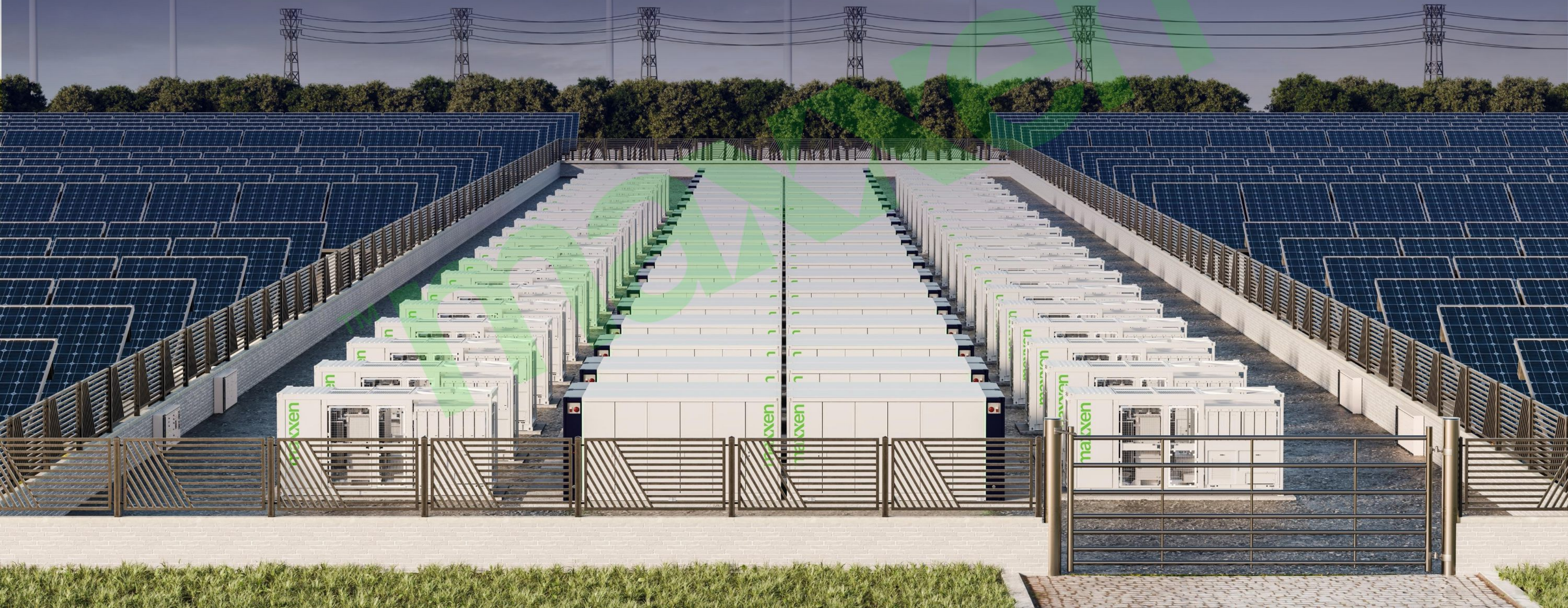
TM **maxx**en

3rd Edition
 **Energy
Storage**
Central Eastern
Europe

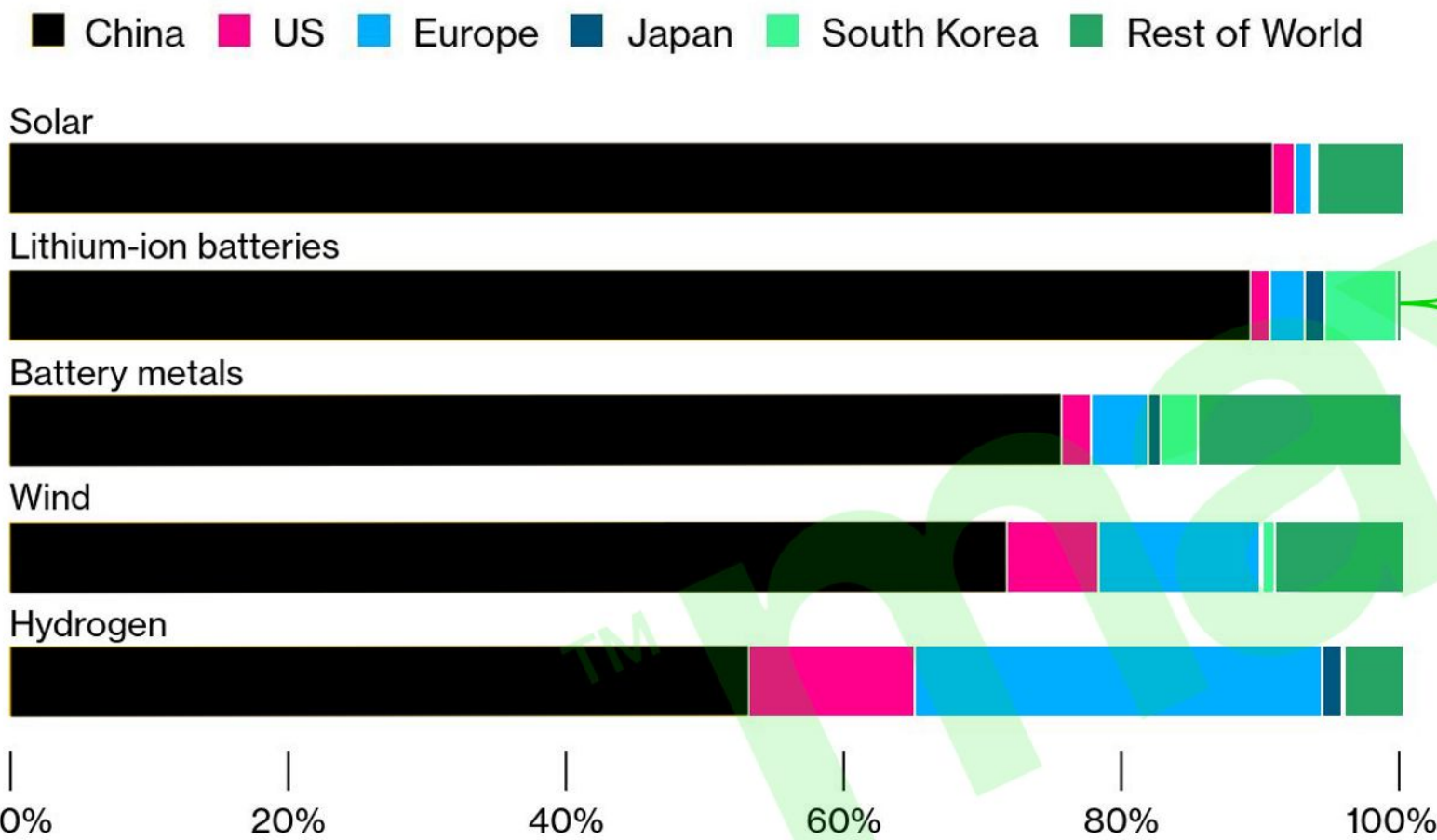
Making BESS bankable

Unlocking value through flexibility and services

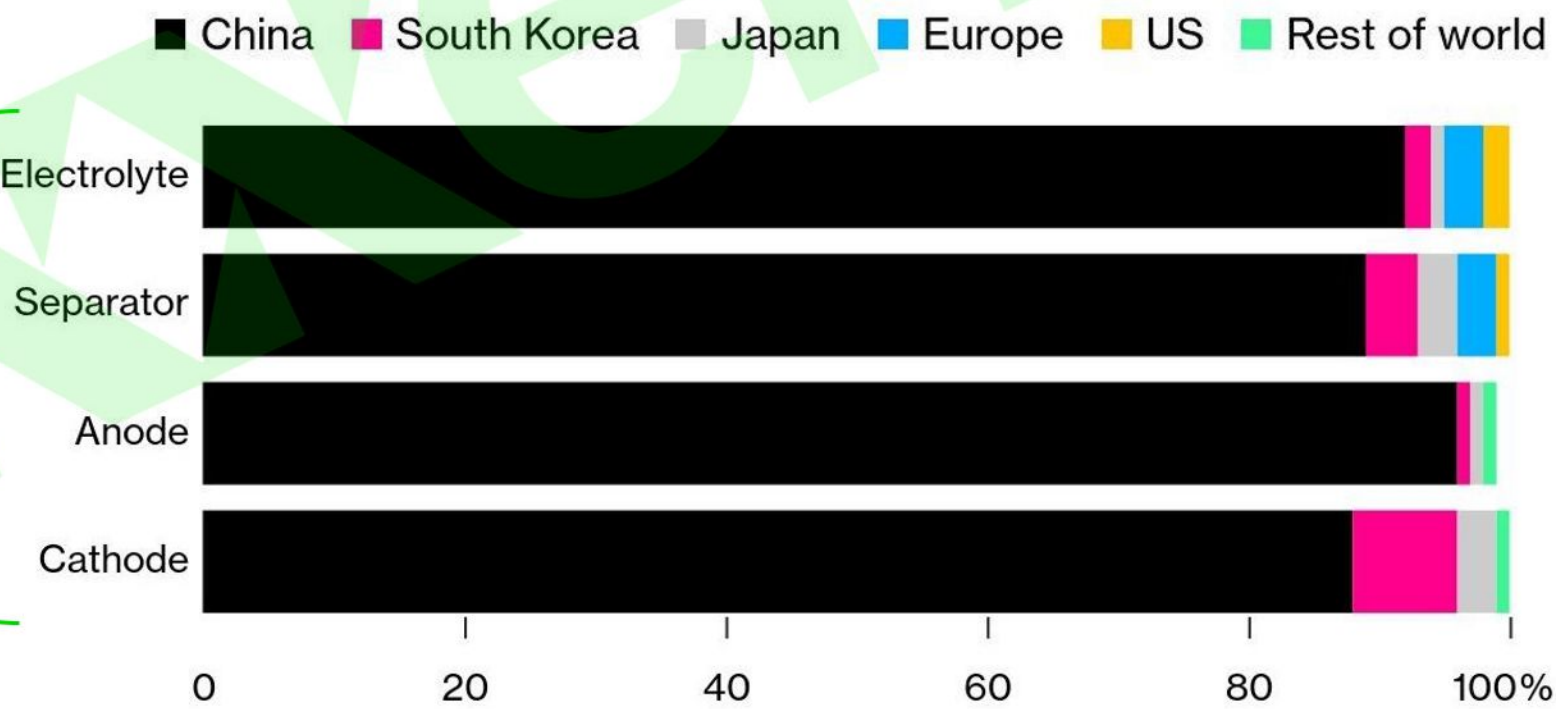
Warsaw, Sep 24th 2025 – Ruben Valiente



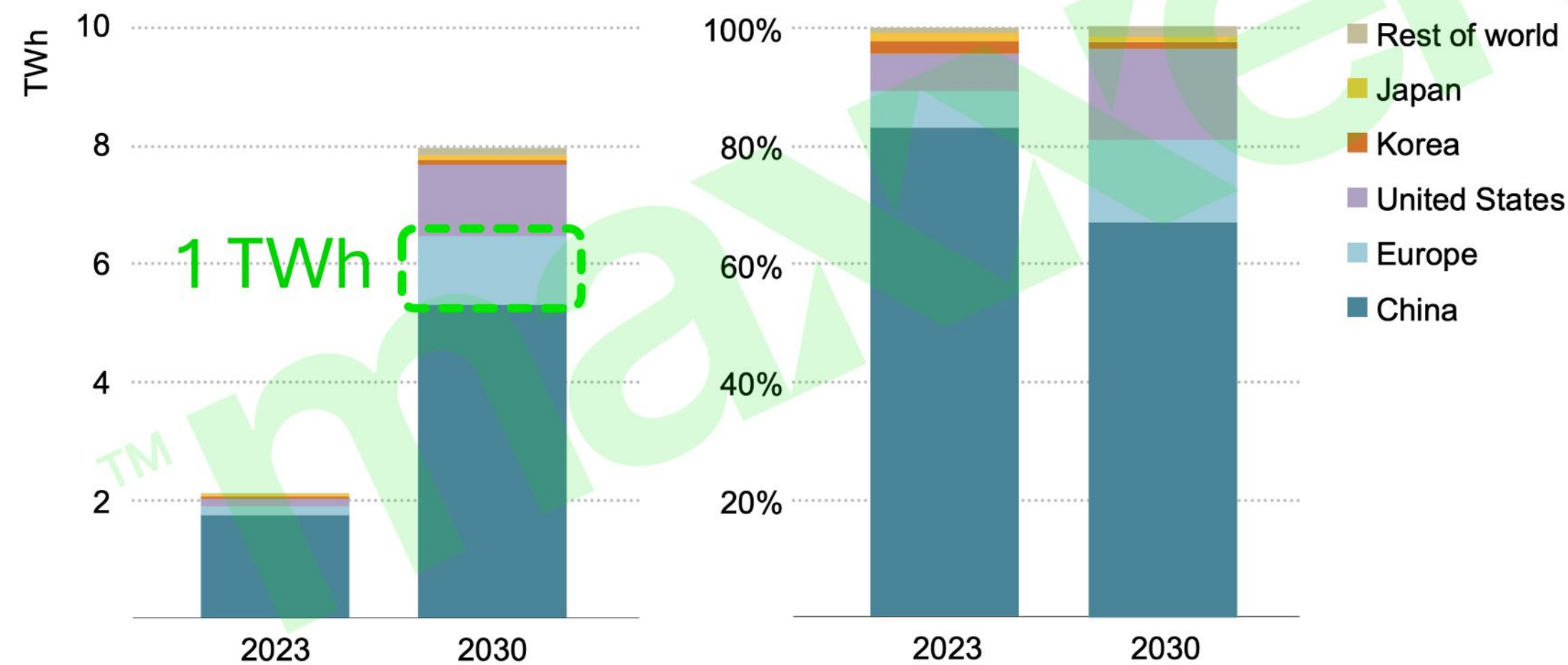
Global cleantech production capacity



Battery component production capacity



Battery assembly production capacity



MANY PLANS...

FRANCE

- 1 ACC, 13 GWh, (+27 GWh)
- 2 AESC/Renault, (+30 GWh)
- 3 Verkor/Renault, (+50 GWh)
- 4 Prologium, (+48 GWh)
- 5 Tiamat, (+5 GWh)

GERMANY

- 6 ACC, (+40 GWh)**
- 7 CATL, 14 GWh, (+10 GWh)
- 8 Leclanche, 4.5 GWh
- 9 Northvolt Drei, (+60 GWh)
- 10 SVOLT, (+24 GWh)**
- 11 SVOLT, (+16 GWh)**
- 12 Tesla, 50 GWh, (+50 GWh)
- 13 PowerCo, (+20 GWh)
- 14 Cellforce Group, (+20 GWh)
- 15 Customcells, (+unknown GWh)
- 16 EAS, 0.5 GWh

ITALY

- 17 ACC, (+40 GWh)**
- 18 ITALVOLT, (+45 GWh)**
- 19 FAAM, 0.35 GWh, (+8 GWh)

PORTUGAL

- 20 CALB, (+45 GWh)

NETHERLANDS

- 21 Eurocell, (+1 GWh)**

SWEDEN

- 22 Northvolt, 16 GWh, (+44 GWh)*
- 23 NOVO (Volvo), (+50 GWh)*

HUNGARY

- 24 CATL, 100 GWh
- 25 EVE Energy, (+28 GWh)
- 26 Samsung SDI, 40 GWh, (+10 GWh)
- 27 SK, 18 GWh, (+29.3 GWh)
- 28 Sunwoda, (+unknown GWh)

NORWAY

- 29 Elinor, (+40 GWh)
- 30 FREYR, (+29 GWh)**
- 31 Morrow, unknown GWh (+42 GWh)
- 32 Beyondr, (+10 GWh)

FINLAND

- 33 Finnish Minerals, (+60 GWh)

SPAIN

- 34 Envision AESC, (+50 GWh)
- 35 PowerCo, (+60 GWh)
- 36 Basquevolt, unknown GWh (+10 GWh)
- 37 CATL/Stellantis, (+50 GWh)

U.K.

- 38 Envision AESC, 2 GWh, (+33 GWh)

- 39 Agratas/Tata, (+40 GWh)

- 40 Nanotech Energy, (+unknown GWh)

- 41 Eve Energy, (+60 GWh)

SLOVAKIA

- 42 Gotion Inobat, 20 GWh, (+20 GWh)
- 43 ElevenEs, (+48 GWh)

POLAND

- 44 LGES, 90 GWh, (+25 GWh)

CZECH REPUBLIC

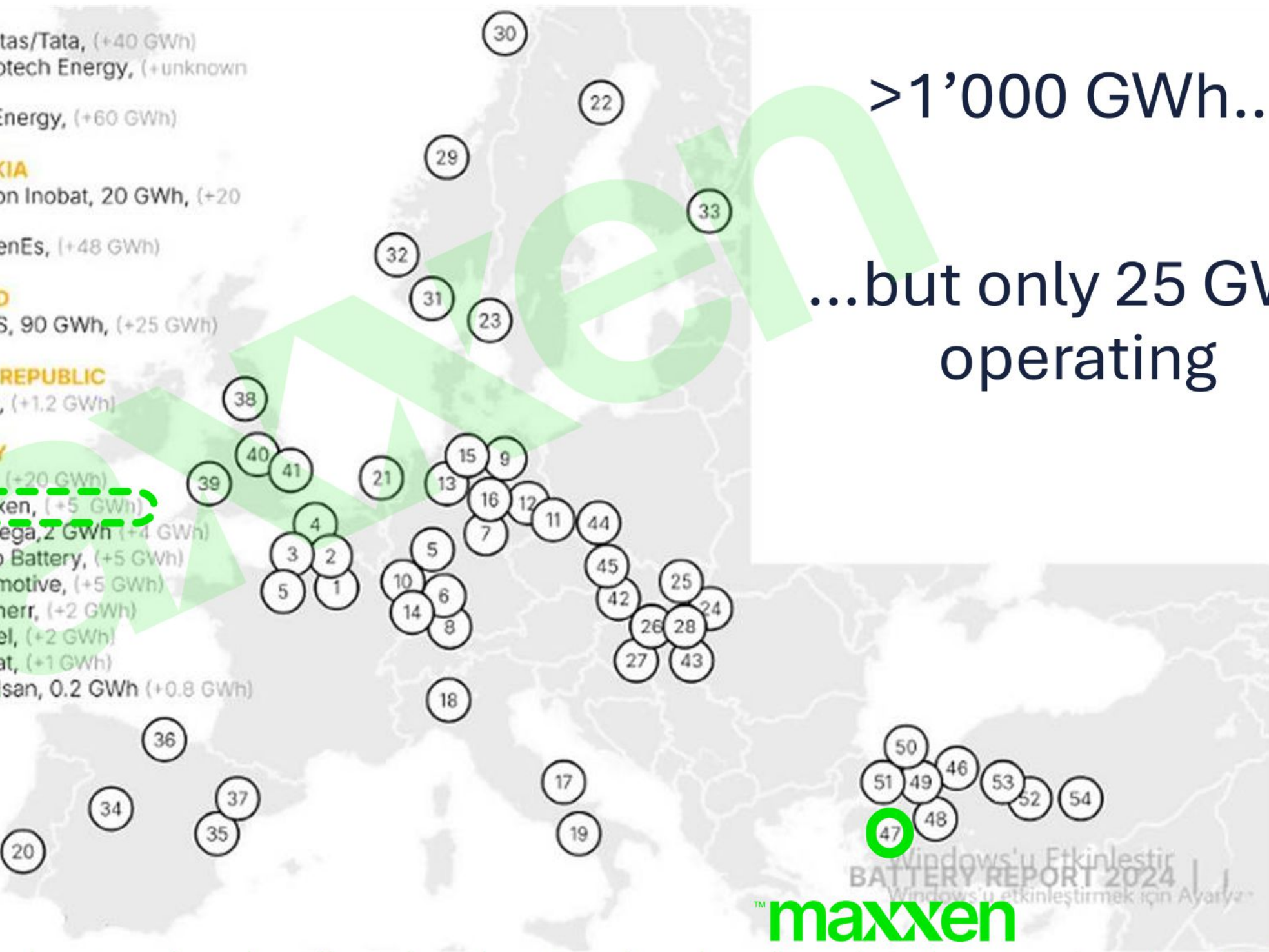
- 45 MES, (+1.2 GWh)

TURKEY

- 46 Siro, (+20 GWh)
- 47 Maxxen, (+5 GWh)
- 48 Pomega, 2 GWh (+4 GWh)
- 49 Reap Battery, (+5 GWh)
- 50 Ottomotive, (+5 GWh)
- 51 Ampherr, (+2 GWh)
- 52 Vestel, (+2 GWh)
- 53 Inovat, (+1 GWh)
- 54 Aspilsan, 0.2 GWh (+0.8 GWh)

>1'000 GWh...

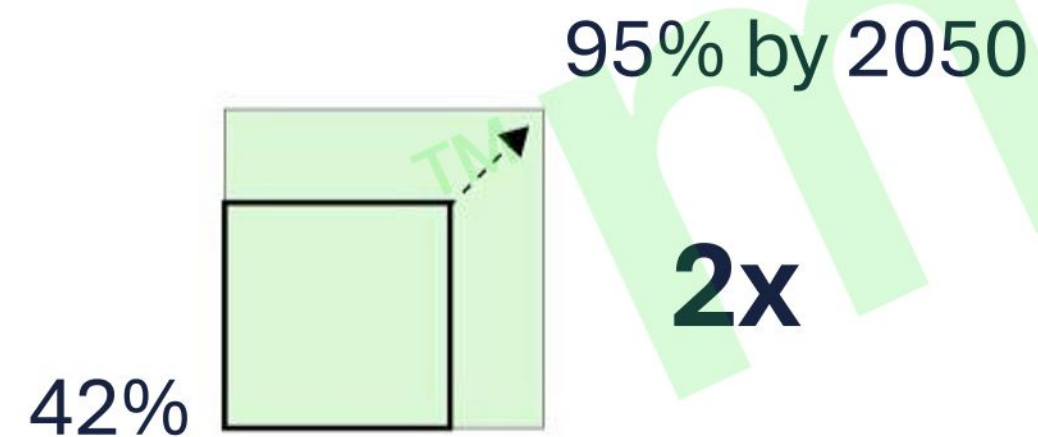
...but only 25 GWh operating



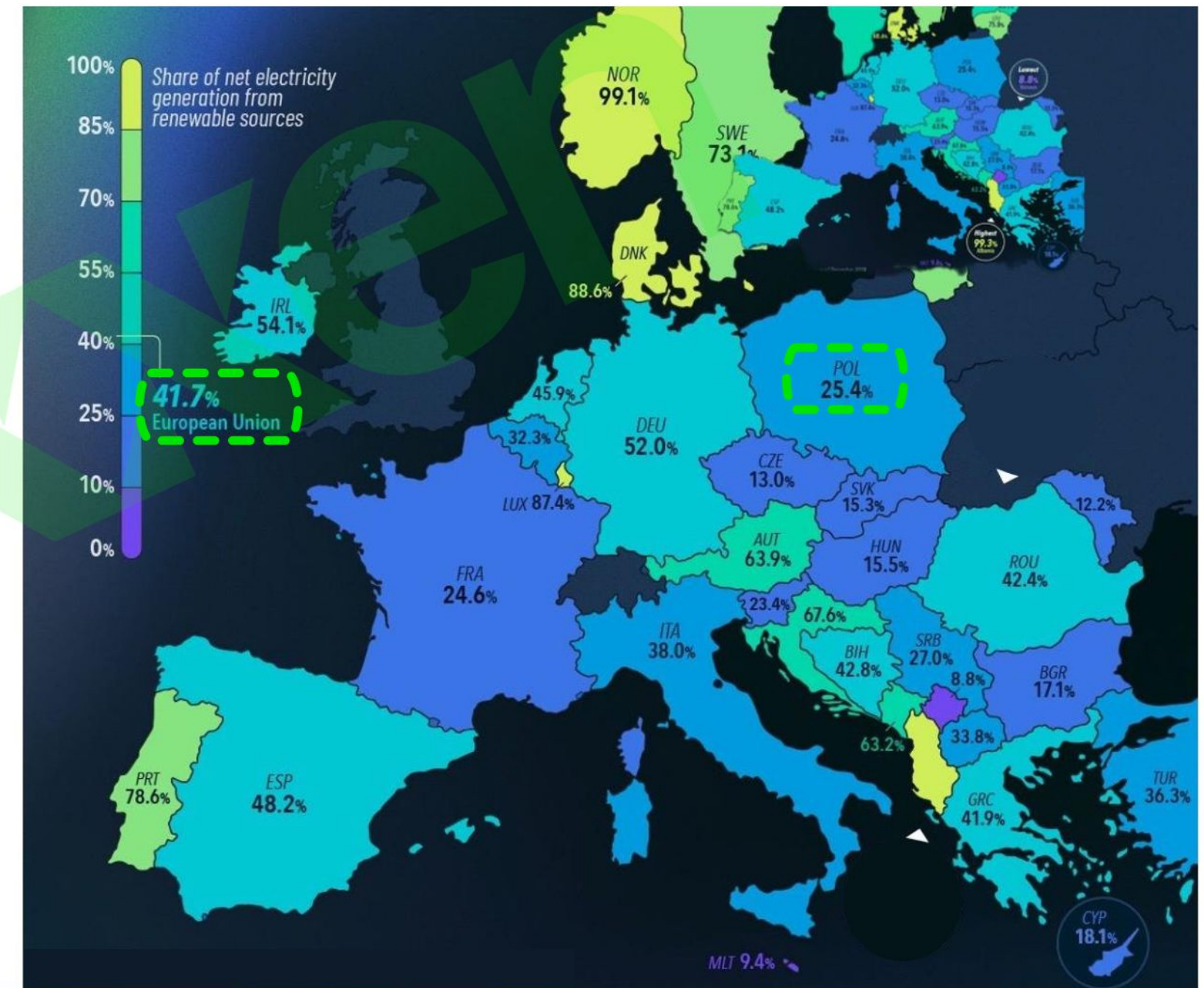


- We are less than **10%** done, **overall**
- We are less than **50%** done, in **power**

Green power generation

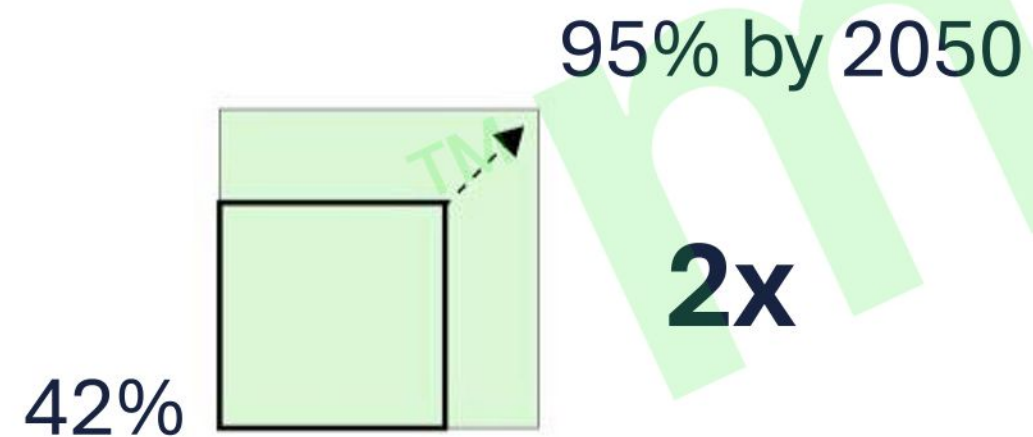


Share of electricity from renewables

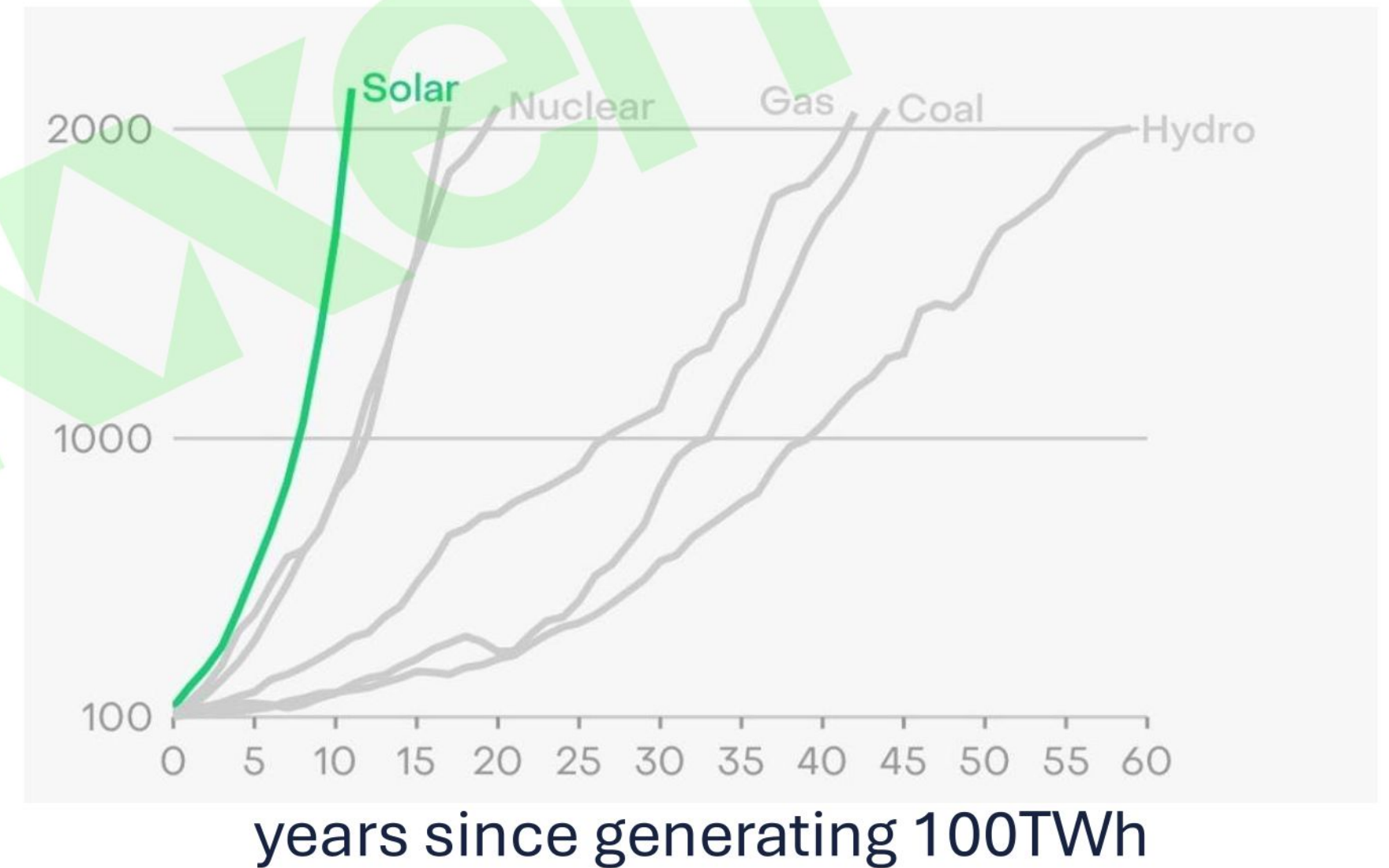


- We are less than **10%** done, **overall**
- We are less than **50%** done, in **power**

Green power generation

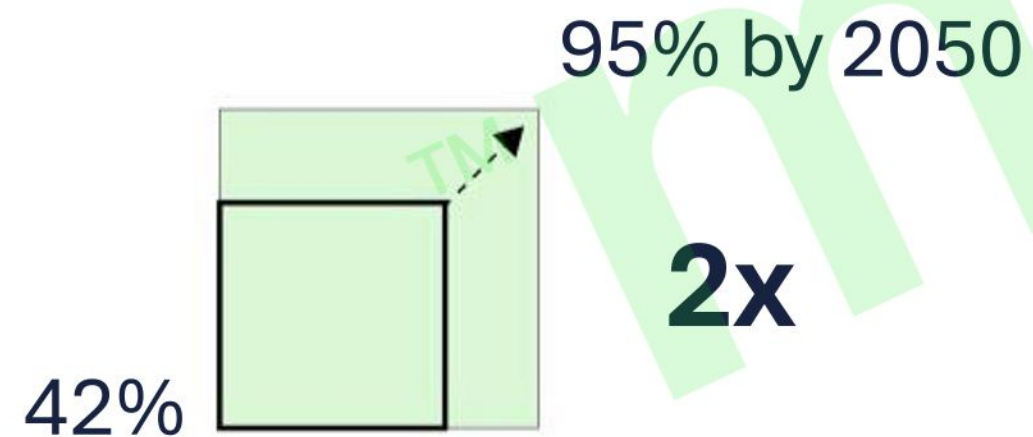


Electricity generation, globally

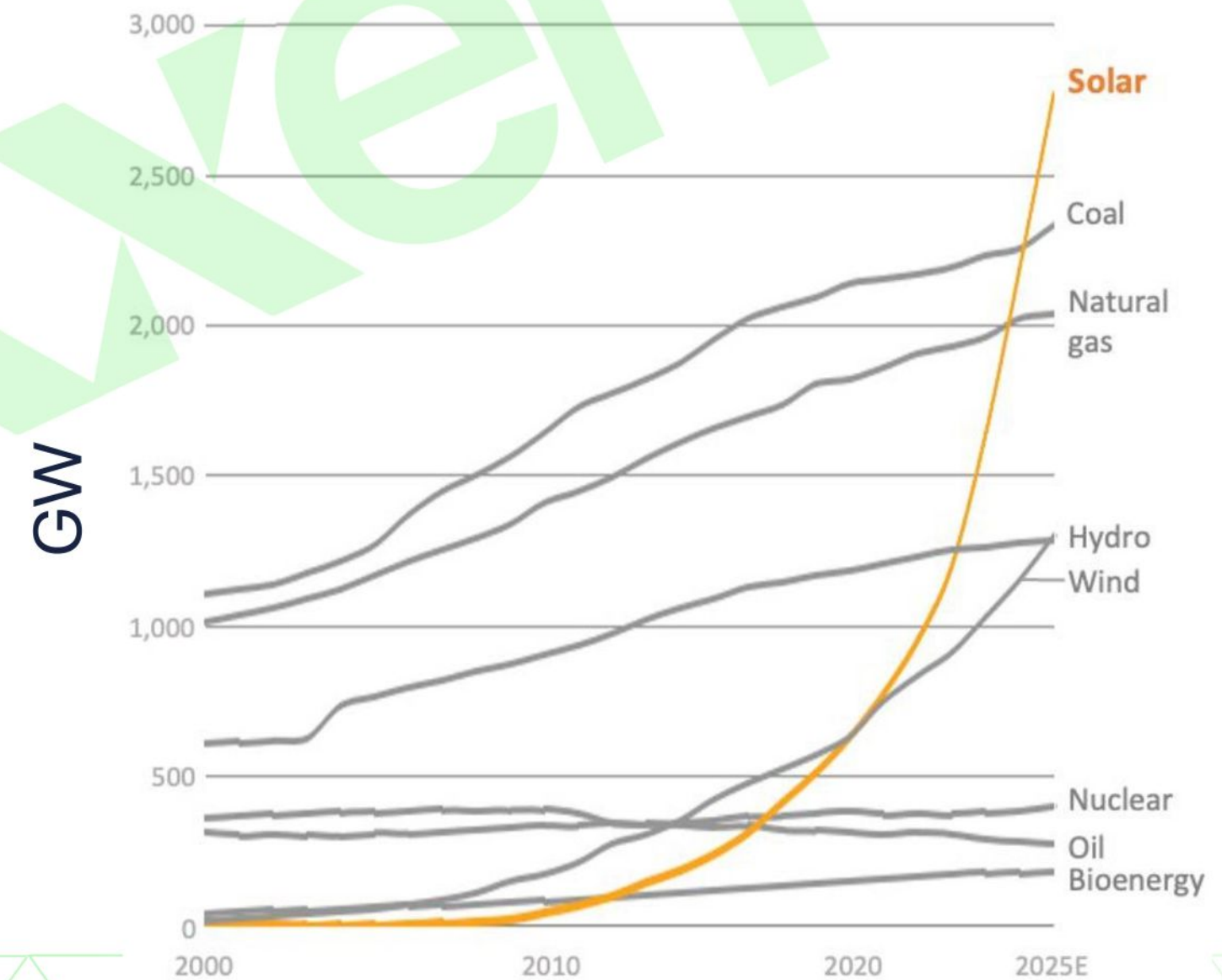


- We are less than **10%** done, **overall**
- We are less than **50%** done, in **power**

Green power generation

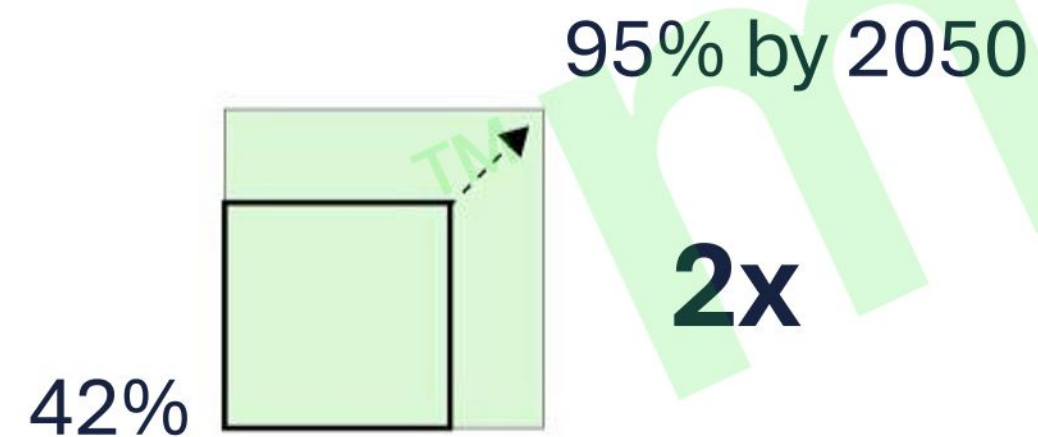


Installed capacity, globally

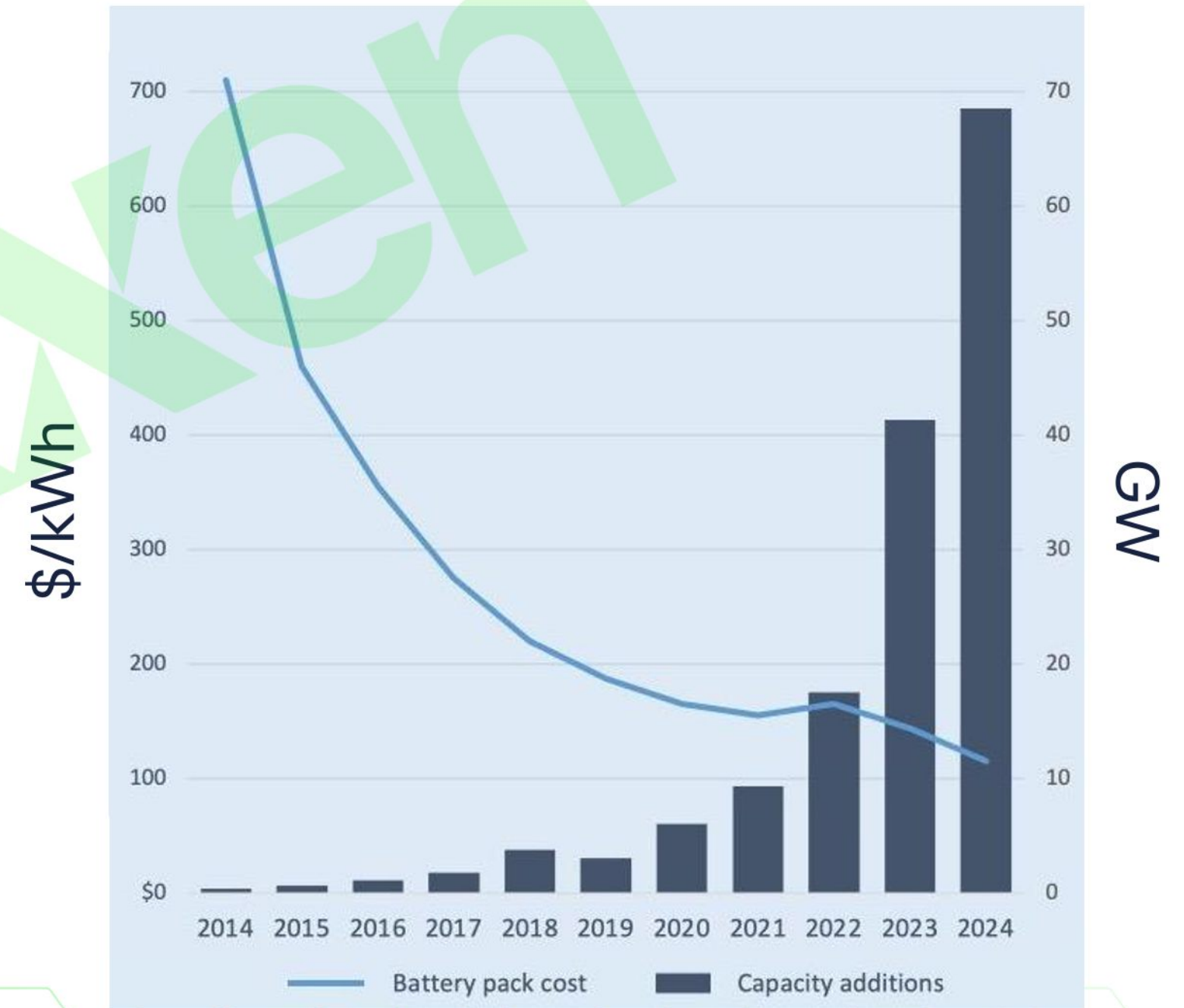


- We are less than **10%** done, **overall**
- We are less than **50%** done, in **power**

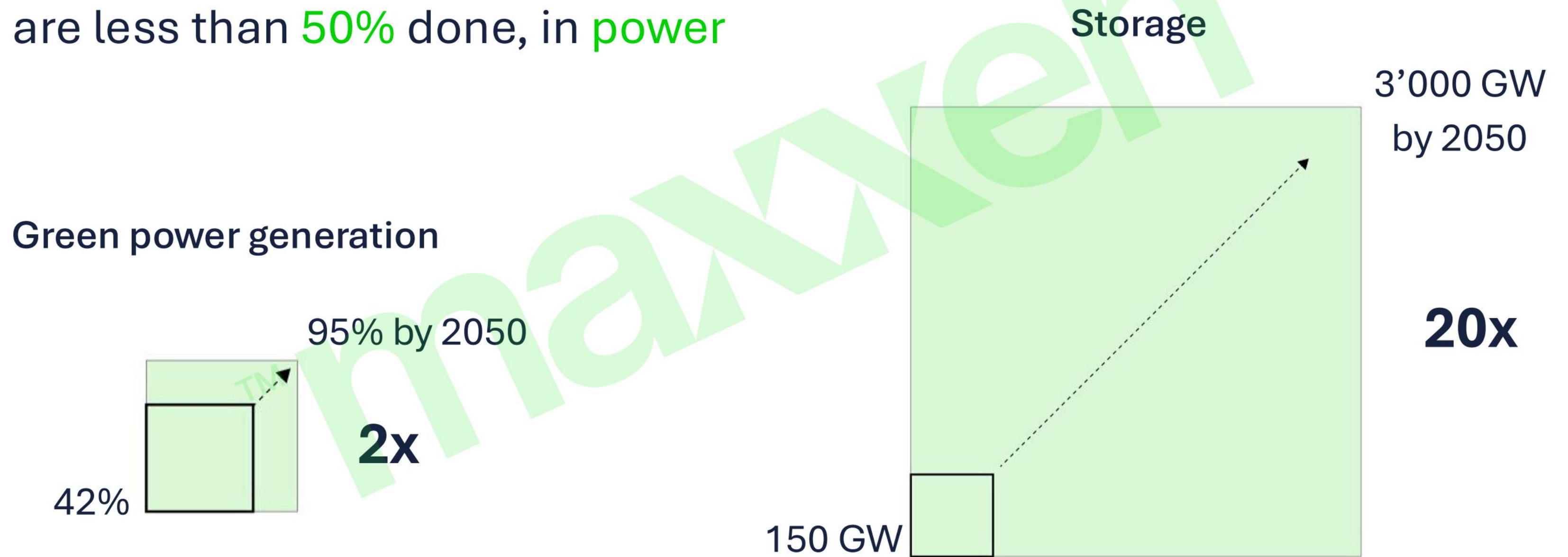
Green power generation



BESS costs and additions, globally

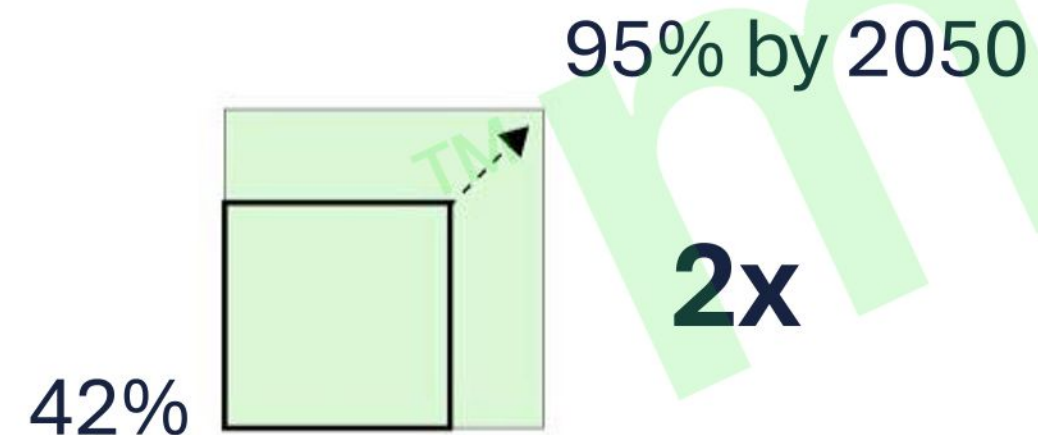


- We are less than **10%** done, **overall**
- We are less than **50%** done, in **power**



- We are less than **10%** done, **overall**
- We are less than **50%** done, in **power**

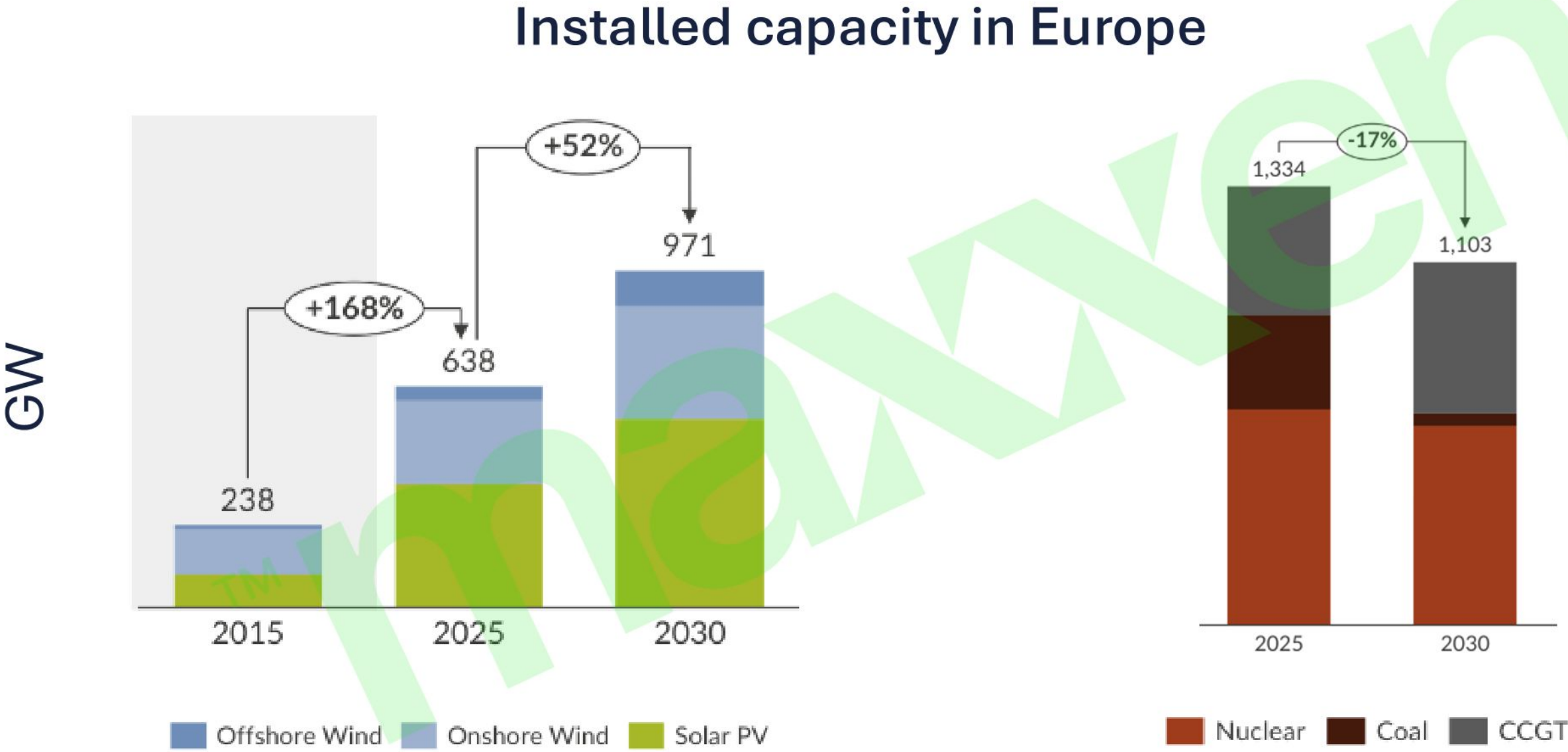
Green power generation



Solar: 6.6% CAGR

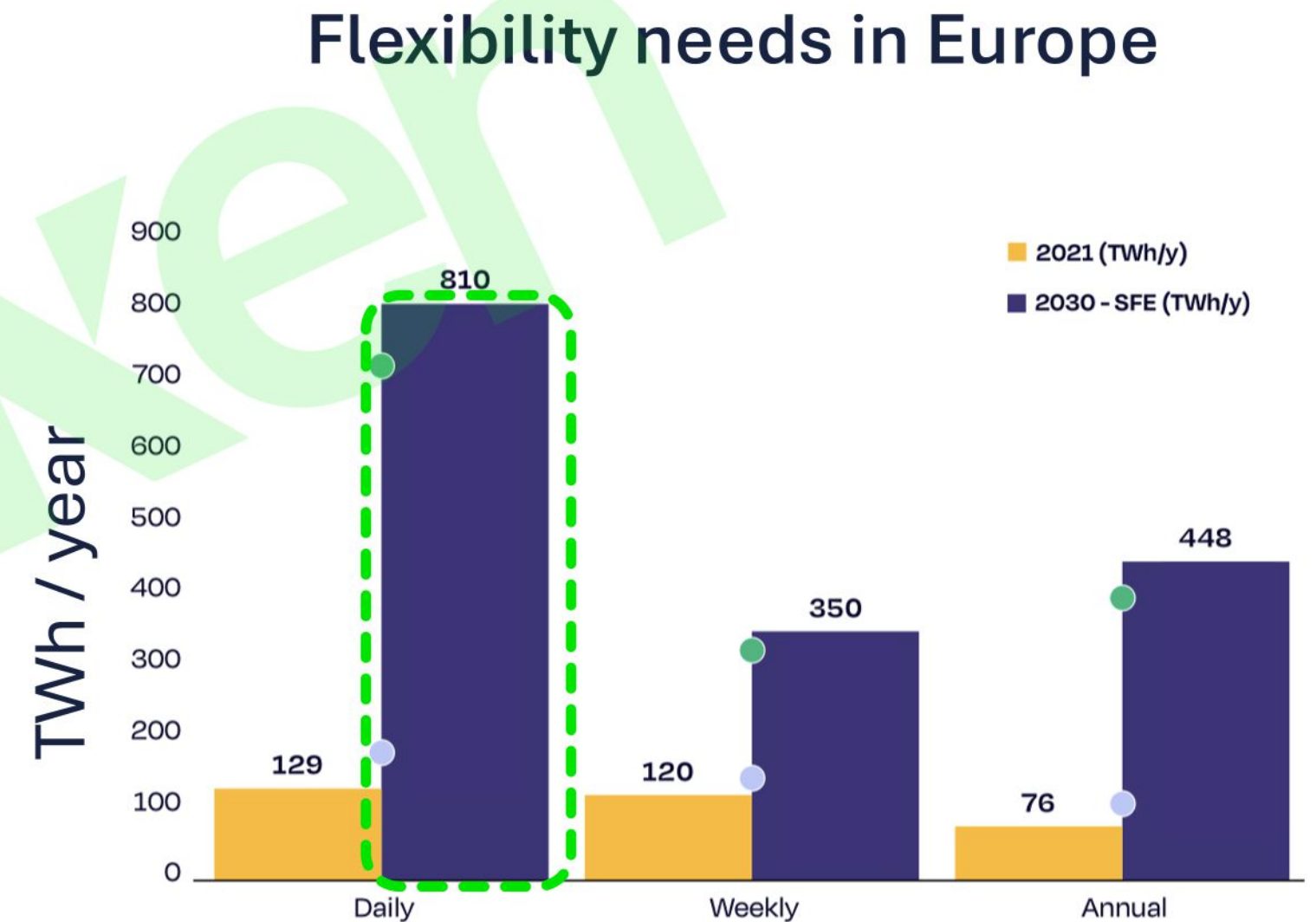
Wind: 3.6% CAGR

BESS: 14.7% CAGR



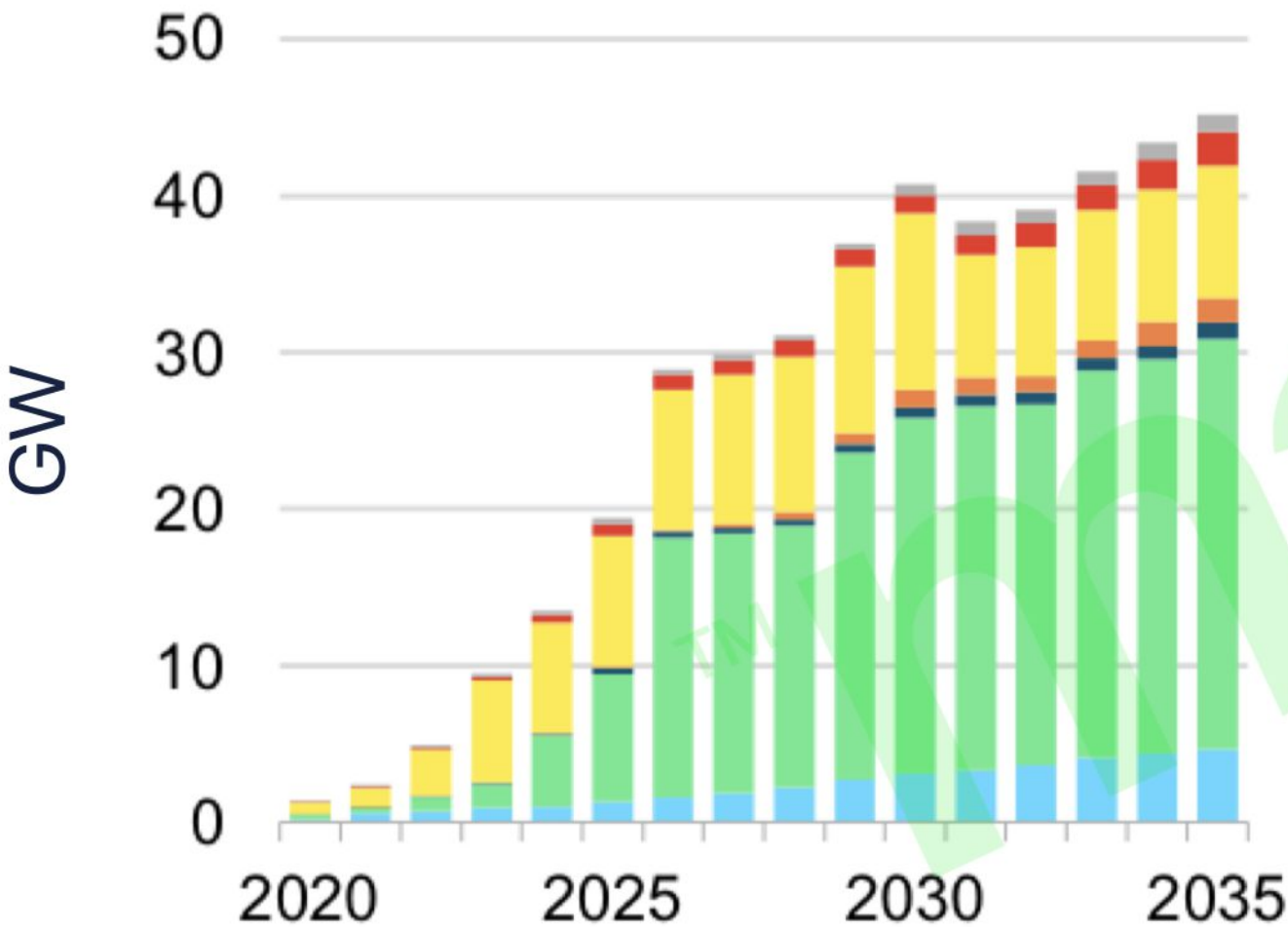
Storage systems are **flexible** by definition and can provide a wide range of essential **services** to the grid:

- energy **shifting** for hybrid assets
- power **capacity**
- energy **arbitrage**
- frequency regulation
- voltage support
- grid balancing
- grid-forming (black start, spinning)
- mitigation of grid upgrades (TSO, DSO)
- peak shaving on demand side

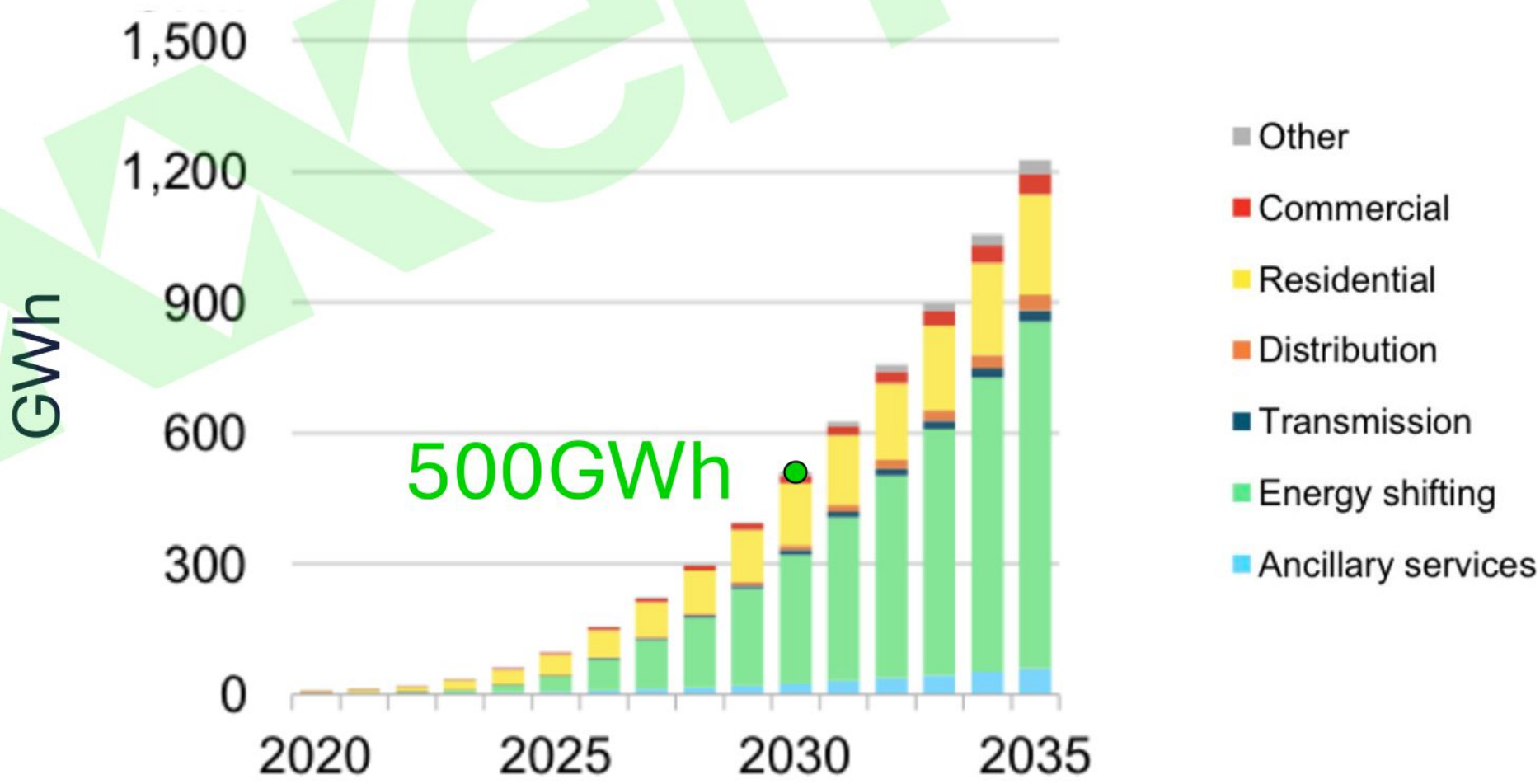


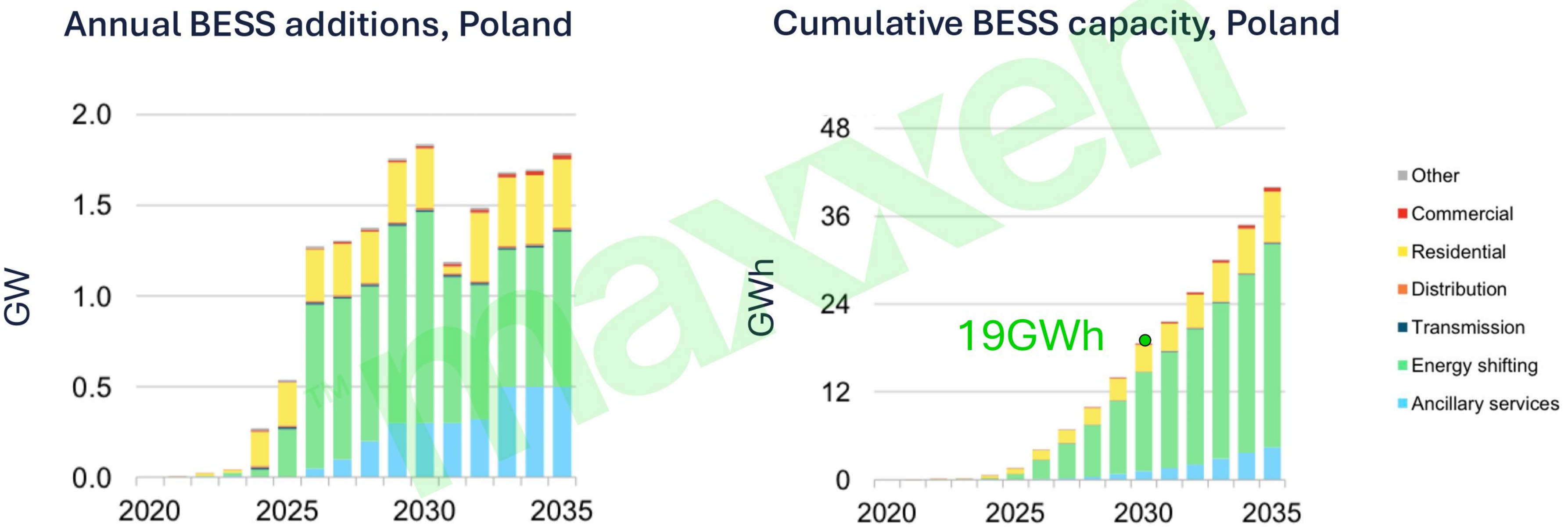
33b€ investment 2h/4h

Annual BESS additions, Europe

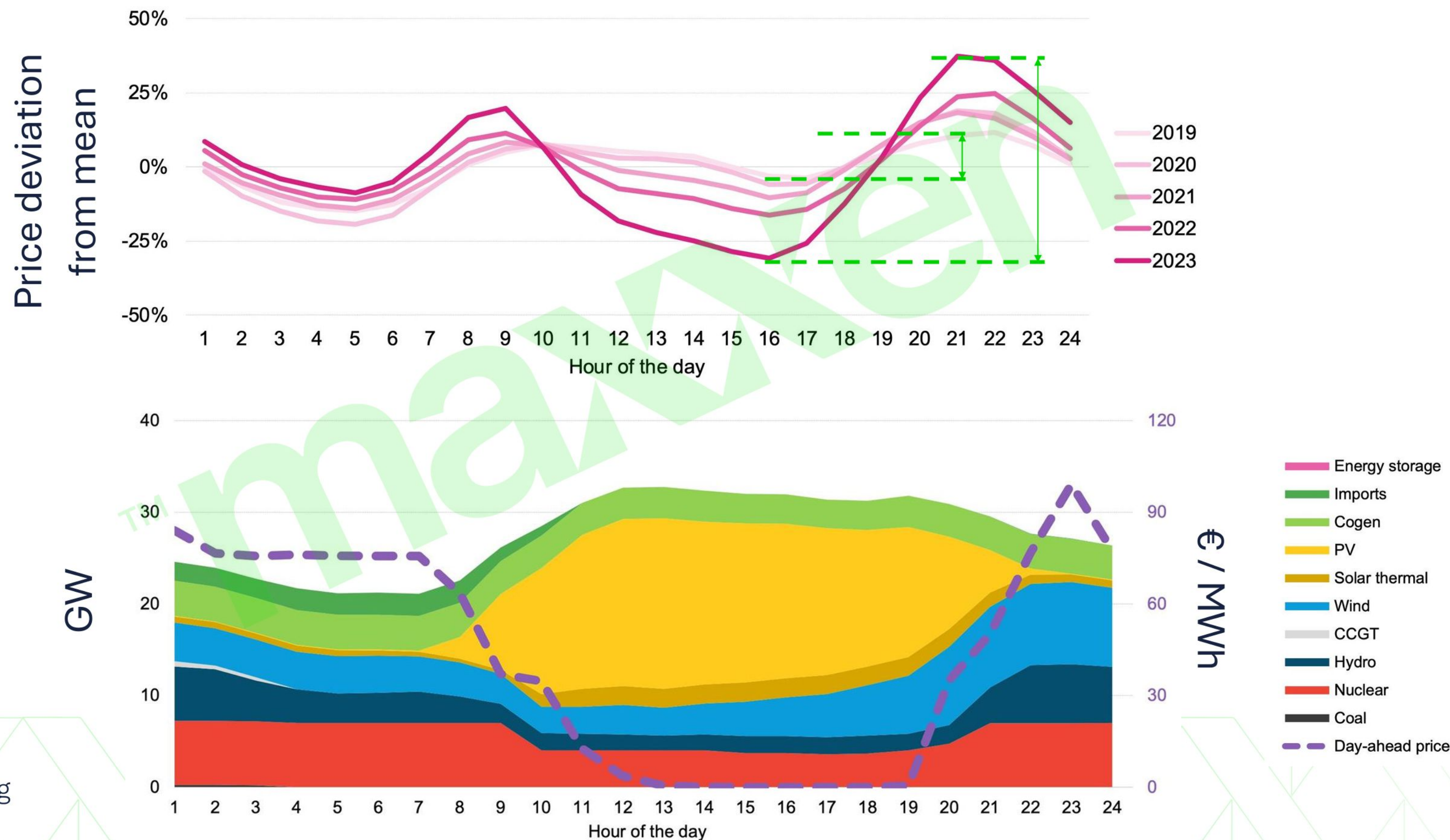


Cumulative BESS capacity, Europe



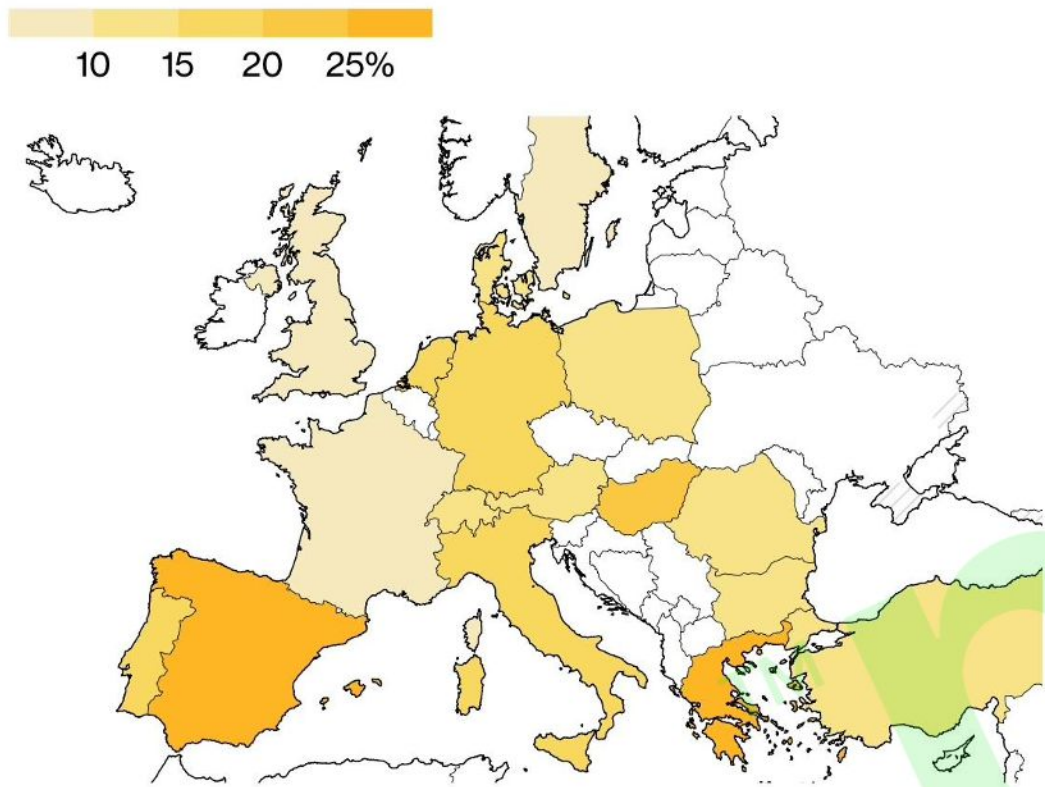


STORAGE MAIN DRIVERS: CANNIBALIZATION



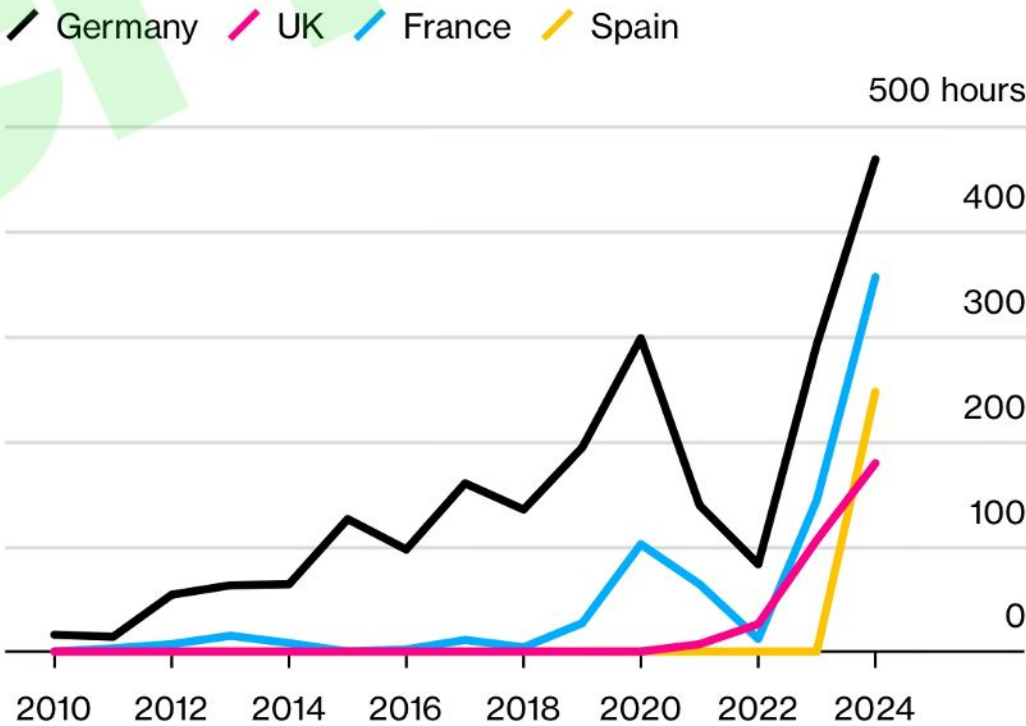
Source: Bloomberg

Solar penetration

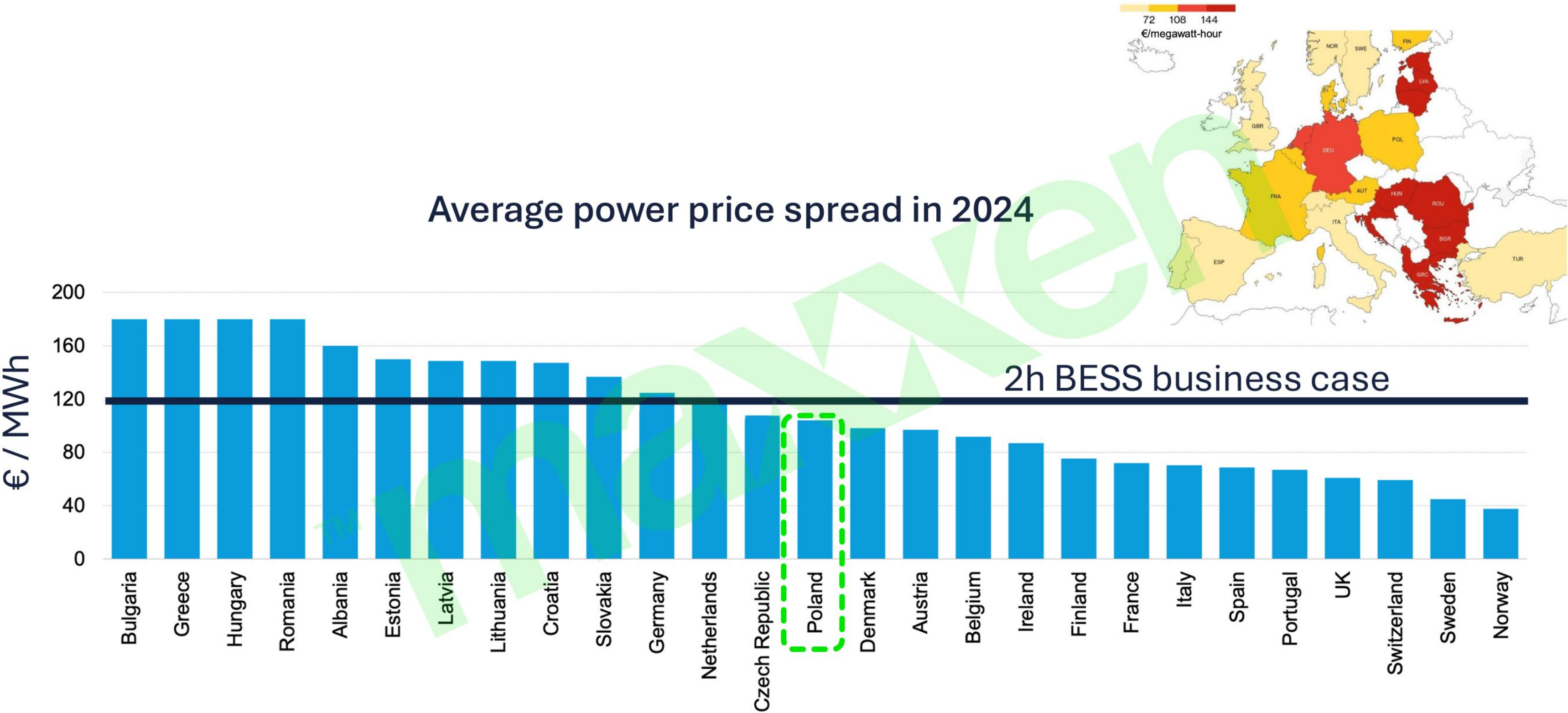


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	0.9	1.5	2.4	3.5	3.8	3.7	3.9	3.5	3.0	1.8	1.2	0.7
2021	0.8	1.6	2.7	3.4	3.8	4.3	4.1	3.6	3.1	2.3	1.2	0.8
2022	1.2	2.0	3.0	3.8	4.7	5.0	5.0	4.6	3.4	2.5	1.5	0.9
2023	1.2	2.3	3.1	4.3	5.0	5.7	5.4	4.9	4.4	2.7	1.6	1.2
2024	1.5	2.2	3.5	4.9	5.8	6.0	6.5	6.2	4.5	2.8	1.9	1.6

Negative prices



STORAGE MAIN DRIVERS: ARBITRAGE



- **Tolling** (availability fee) – maximizes leverage
- Full **merchant** – higher IRR, lower leverage; needs strong optimizer
- Revenue **floors** + profit-share hybrids – **protect downside**, share upside
- What bankable “looks like”: **40–60% contracted** + 60–40% merchant

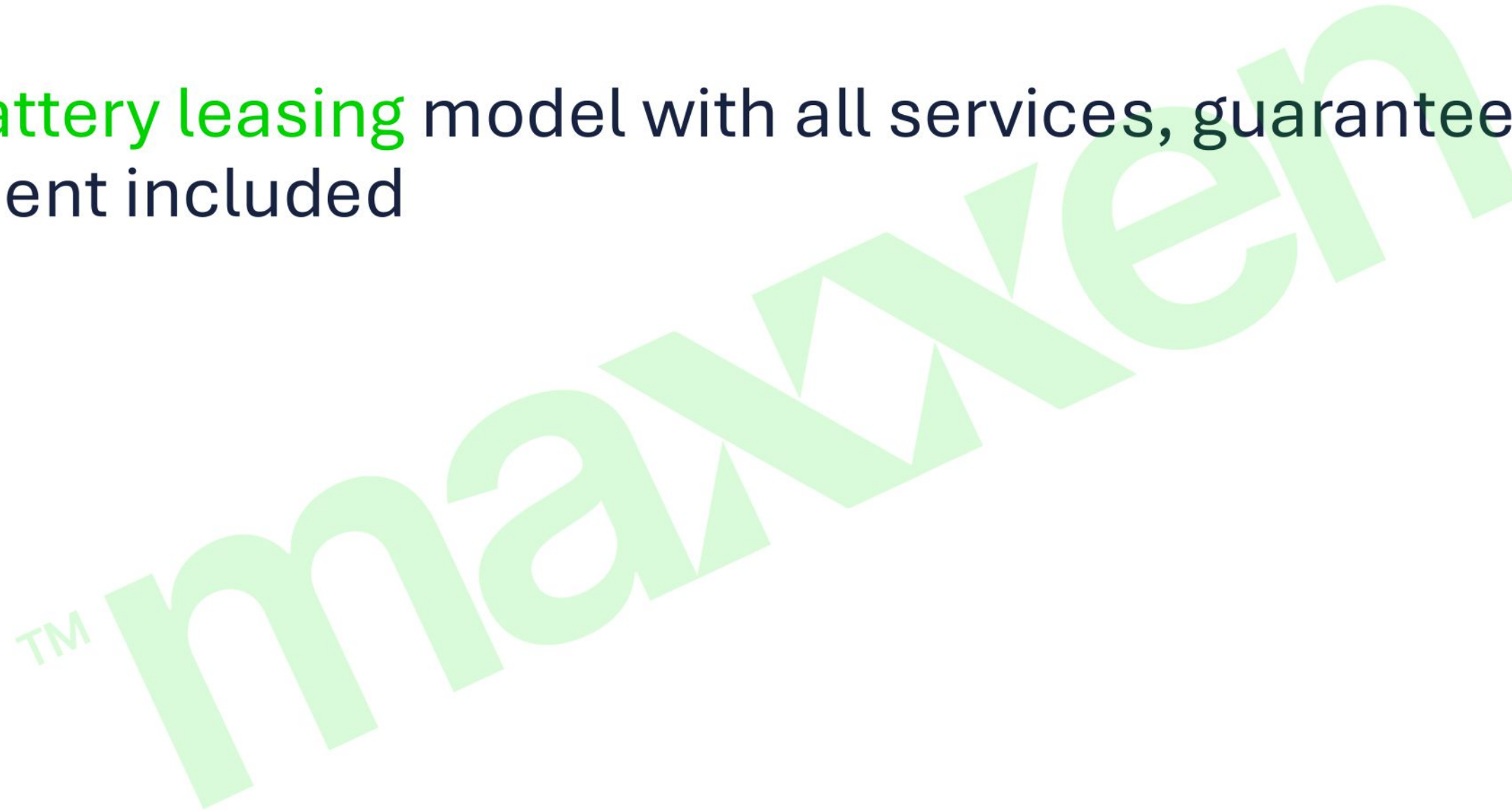
Key revenue streams for BESS



- Choose **top cell** supplier
- OEM **owns** the integration factory
- Integration factory is **certified** (not only the end product)
- **Safety**: UL 9540A, NFPA 855
- EU battery **passport** compliance
- Software platform is open and **hosted** in the **EU**
- **Insurability**

- Capacity guarantee
- RTE guarantee
- Availability guarantee
- Supplier having skin-in-the-game via LTSA and/or be part of captable

- **End-of-life** recycling and/or second life
- Consider a **battery leasing** model with all services, guarantees and end-of-life management included

A large, light green, semi-transparent watermark of the maxxen logo is oriented diagonally across the center of the slide. It includes the word "maxxen" in a bold, sans-serif font with a "TM" trademark symbol to its upper left.

Good batteries are a financial **asset** and a
fantastic **investable** opportunity

TM **maxxen**



www.maxxen.com



[maxxenenergy](https://www.linkedin.com/company/maxxenenergy)

ruben.valiente@maxxen.com

