2030 - 300GW



New approaches for originating decentral green RE projects in Europe

Baxcompany.com Rolf Bastiaanssen BAX & COMPANY/



About us Technology, Market & Policy piloting

- Development of innovative RE projects and local support programmes across Europe
- Co-development of <u>technology</u>, <u>markets</u> and <u>policies</u> for a sustainable world
- 'readiness levels' as core concept; match instruments to effectively lower system risk and accelerate development





Example Maturing use of Solar and Storage

Solar has reached, in Europe

- Global mass manufacturing (TRL9),
- Business cases across segments (MRL8)
- Finetuned policies for niche uptake (PRL8)

Storage and Power markets have reached

- Piloting mass manufacturing (TRL6)
- Exploring mass applications (MRL5)
- Piloting policies for energy transition (PRL3)



Large & Small scale projects





Trends in development support needs



- Continuous re-alignment of systemic benefits and risks for public and private players across the system. Coordination of standards over time.
- Large-scale: PV + storage. Revenue stacking and balancing
- Small scale: BTM Leasing models with pre-qualification of retailers
- Common: simplified TA and project standardisation, regional public pre-commercial development support

Capacity auctions Netherlands, Germany

- Annual calls for specific type of projects
 - Best projects receive subsidies, PPA, guarantees
 - Great to find quality projects, competitive pricing
 - Commercial or Cooperative
- Germany
 - >750kW-100MW, tariff set €0.057/kWh
 - <750kW range. 30% approved @0,085 (>750 bids)
- Netherlands
 - Dozens of developers, 2x oversubscribed
- For developers
 - Attention is shifting from policy makers to market
 - New strategic risk: congestion with DSO or TSO





urce: Bundesnetzagentur, graphic: TaiyangNews

Project development risk

- No horizontal, vertical policy alignment at 5y timescales.
- Macro-economic factor: WACC trending up, fast
- Operating risk: load shedding by TSO, DSO
- Storage & Revenue stacking
 - Stability and significant revenues
 - €1M / 1MWh, €100k/100kWh installed
 - BTM: 65% of services is FTM
- Technology and alternative markets as back-up of policy and core market risks





Public local energy facilitator South-East, UK

- Manages investment for large rooftop PV, >1MWp range
- 20 year PPA 'behind the meter'
- Cost+ arrangement for users
- Contracts locally tendered

• Interest: 10k users C + R (2022)







Green finance ING Bank, the Netherlands

- Top-up on standard C + R financing
- Solar, energy efficiency targets
- Private one-stop shop
- 10-15BP discount entire programme
 - Provided by national, EU sources
- €200m programme target
- EIB grants €2m to support
 - Nation-wide publicity, sales training
 - Energy scan for applicants

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Hypotheek voor een duurzaam huis

Ontdek wat er voor jou mogelijk is



Als je een duurzaam huis koopt, kun je besparen op je energiekosten. Hierdoor kun je in aanmerking komen voor de Duurzaamheidskorting van 0,10% tot 0,15% en voor een hogere hypotheek, dan op basis van je inkomen mogelijk is. Deze verhoging kan €9.000, €15.000 of €25.000 zijn.

Project development risk



- High preliminary cost
- Need to know & connect with site owners
 - Also for social acceptance
- Regional bodies (supported by TA) doing 90% of precommercial development. One stop shop.
 - 10fte per city of 100k inhabitants (5 for energy)
 - Regional Energy Strategy, layered investment approaches
- High BRL projects tendered among larger group of developers
 - Level playing field, strong competition
 - IRR trending downwards to match lower risk of projects

West Suffolk is helping local businesses to reduce their carbon footprint and save on energy bills through free solar panel installations.

Shared by Greater South East Net Zero Hub Oct 2021

Location West Suffolk

Action Areas





Initiative Africaine pour les ÉnergiesRenouvelables

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VALUE FROM SCIENCE AND TECHNOLOGY

EPC for building renovation Province, the Netherlands

- 100% finance for Deep Energy Performance Renovation
 - €100m target (1000 homes)
- Regional public management
 - 10fte, 5 years development time
- Aligned with National instrument
 - Long term, low interest, guaranteed



PROVINCIE **II UTRECHT**







Group procurement of rooftop solar Suffolk, UK

- Households register interest
- Local authority auctions lot
- Individualised offers
- Interest: 10k household (2022)



Solar 7

Solar Together Suffolk

Group-buying for solar panels and battery storage



TRL applied (I)

Figure 4: Example Project Evaluation for a Utility Scale Solar PV Project





https://arena.gov.au/assets/2014/02/Commercial-Readiness-Index.pdf