

# Public-Private Cooperation in the German Energy Transition

---

Panama-EU Dialogue on Financing the Energy Transition  
Alexander Ochs, CEO, SD Strategies GmbH  
12 May 2023 – Panama City



# PPPs in Germany

---

- German PPPs **based on an agreement governed by private law**, concluded **between a public partner** (the Federal Republic, a federal state or a local community) and a **private legal entity or consortium**.
- PPPs have **not been central** so far for projects related to the energy transition.
- There have been however **pilot PPPs in street lightening**.
- **Most important PPP projects in Germany:**
  - extension of **German motorways (*Autobahnen*)**, so-called **A-models** ('A' as an abbreviation for *Autobahnausbau*; motorway extension - private partner takes responsibility for **extending the number of lanes as well as for paying the costs of maintenance and operation** of both the existing and new lanes in certain parts of existing motorways.
  - **approximately 100 other PPP projects are in the planning or implementation phase: the renovation, extension or construction of public buildings** (schools, hospitals, prisons, castles, gardens).
- In the future, PPPs will likely play an important role mobility :
  - investments in **rail infrastructure** (will likely rise substantially over the next decade); **urban mobility** initiatives
  - ...as well as in the **economic transformation of coal regions** following the German government's decision to phase out coal-fired plants. ”

# Idea to tender PPP packages for street-lighting

---

- **Great investment needs in Germany**
- **High saving potentials in energy and CO2-emission** (in av. 35%, up to 80 %)
- Reason: **30%** of about 9 Mio. street-lighting facilities are **from the 1970`s** or older
- Projects “similar” to PPPs: Bremen, Gera, Hagen
  - Call for bids, then contracted
- PPP **tender** packages, contract period of 20 years (15 years for small projects)
  - Private companies in charge of operation and maintenance of facilities and energy supply
  - Ownership of existing facilities remains with the municipality-->Transfer of ownership of new assets to the municipality once they are operational
- Potential benefit:
  - **Investment barriers overcome**, municipalities face lack of liquidity (in Germany, lack of resources at the local level is a major problem)
  - **effective and cost-optimal accomplishment of energy efficiency and CO2 emissions**
  - **targets set by the public actor**

# State Aid to EVs charging stations (2022)

---

- In a recent decision (Dec. 2022), European Commission approved a **1.8 billion euros German State aid scheme for high-power charging infrastructure for electric vehicles**.
  - funding about **8500 high-power charging [HPC]** points in **900 locations**.
  - **reducing charging times** to about 15-30 minutes
- Under the scheme, aid will take the form of **direct grants** and **recurring payments** covering part of the operating costs.
  - Beneficiaries will be companies with experience in the construction and operation of recharging infrastructure
  - Selected following a competitive bidding process.
- The scheme will enable Germany to roll out the necessary high-power charging infrastructure for electric vehicles in urban, suburban and **rural areas** (where it is less attractive to install them from a commercial perspective due to less consumption).
- The scheme will **accelerate the deployment of electric mobility** and **help reduce greenhouse gas emissions**, in line with the **European Green Deal** objectives.

# Public-private cooperation for the energy transition

---

- Beyond these PPPs in the narrow sense, public-private partnerships as in **cooperation between public and private actors** essential for continuous market development and achieving long-term energy transition goals. **This kind of PPP drives the energy transition**
- **Public actors establish the legal framework**, regulations, and targets to.
- **Private actors invest** in renewable energy projects, develop technologies, and participate in auctions or FIT/FiP schemes.
  
- Public-private cooperation ensures a balanced approach.
- Public actors **set market rules in the public interest**, provide **stability, long-term contracts, and financial incentives, encouraging private actors to invest** in renewable energy projects.
- Private actors bring **innovation, efficiency, and competition, driving down costs and advancing renewable energy technologies**.
- **FIT and FiP schemes** initially **kick-started renewable energy deployment**, providing a stable market for private actors to invest in renewable energy projects.
- **Auctions introduced market competition**, fostering cost reductions and efficiency improvements in the renewable energy sector.

# Public-private cooperation for the energy transition

---

## 1. Feed-in Tariff (FIT):

- Public actors (government) set a fixed price per unit of renewable energy produced and guarantee purchase for a specified period.
- Private actors (renewable energy producers) receive a stable income and long-term investment security, incentivizing renewable energy generation.

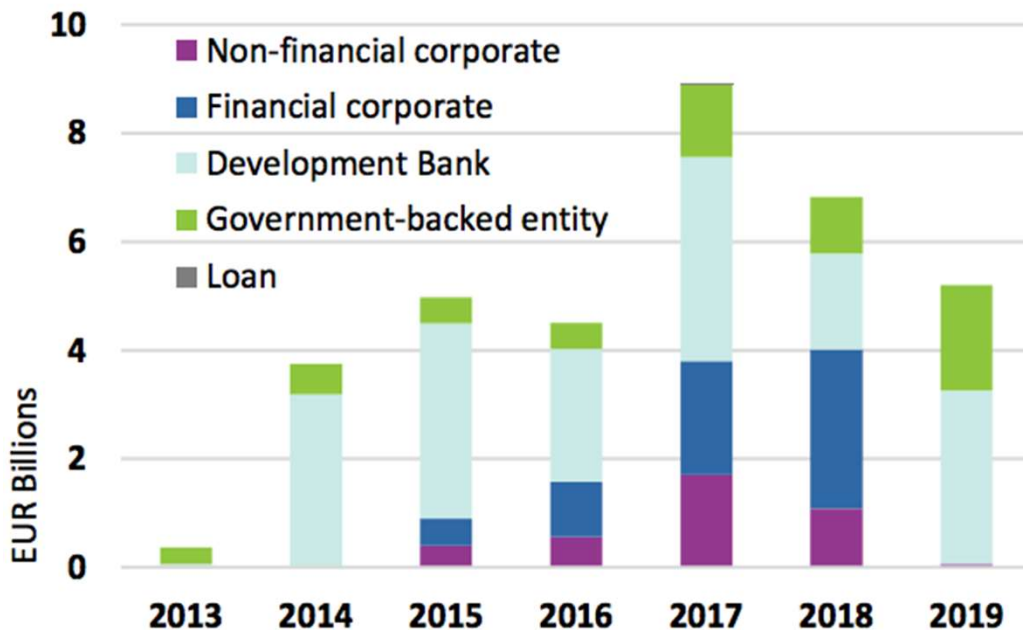
## 2. Fixed Premium (FiP):

- Public actors provide a premium on top of the market price for each unit of renewable energy produced.
- Private actors participate in the market and receive additional financial incentives, encouraging renewable energy generation.

## 3. Auctions:

- Public actors organize competitive bidding processes where private actors submit bids for the right to sell renewable energy.
- Private actors offer their desired price and quantity, and the lowest bids receive contracts to supply renewable energy.

# Public and Private Financing for Sustainable Energy



- **Concessional loans** were one main financing instrument supporting the Energiewende.
- Important role of **government-backed investment banks**: during **2012–2016** alone, the KfW issued commitments with a total volume of **€103 billion (!)** for projects in connection with the energy transition

Source: Climate Bonds Initiative

# KfW Renewable Energies programme

---

## ➤ For whom?

- Private **individuals and not-for-profit organisations** which feed the generated electricity/heat into the grid, at least in part
- **Self-employed professionals, farmers**
- **German and non-German enterprises** majority-owned by private or municipal individuals

## ➤ For what?

- For **plants in which power or heat is generated from renewable energies**
  - solar energy (photovoltaics), biomass, wind energy, hydropower, geothermal energy
  - combined heat and power stations
  - Grids, heat storage
- **Also for investments outside Germany!**

## ➤ What makes this KfW loan so special?

- Up to **100% of the investment costs** eligible for financing
- **low-interest loans up to 20 years**
- loan amount up to **EUR 50 million**



# KfW Offshore Wind Energy Programme

---

## ➤ For what?

- focuses on **project finance transactions**
- construction of offshore wind farms in the **German exclusive economic zone (EEZ) or the 12-mile coastal zone in the North and Baltic Sea**

## ➤ What kind of promotional funds are available?

- Two different term **loan options (A/B)** which can both be combined with a **cost overrun loan (C)**:
- A – Up to EUR 400 million and max. 50% of total project debt direct loan as part of a banking consortium (max. KfW loan amount up to the amount provided by commercial banks)
- B – Up to EUR 700 million and max. of 70% of total project debt financing package composed of a loan from KfW on-lent through a bank and a direct loan from KfW
- C – Up to EUR 100 million and max. of 50% of total cost overrun loan a direct loan under banking consortia to finance unforeseen cost overruns

## ➤ What makes this KfW loan so special?

- Financing of high loan volumes up to a term of 20 years
- For project companies with no limits on investor background
- Focus on commercial bankability

# KfW Building Renovation Programmes

---

- KfW programmes for **energy-efficient construction and retrofitting**
- Instrument: **low-interest loans and additional grants**
- Coverage: Residential, municipal/social and commercial buildings
- Finances **energy efficient refurbishment (retrofitting measures) and new constructions** that meet KfW energy efficient standards



# Institutionalized contact partners and gatherings

---

- National Office for Energy Cooperatives (German Cooperative and Raiffeisen Confederation)
- Renewable Energy Association (BEE)
- **Energiewende Alliance**
- Intersolar Europe
- WindEnergy Hamburg
- **Berlin Energy Transition Dialogue**
- German Renewable Energy Summit
- Energy Storage Europe
- Renewable Networking Platform

# The Energiewende Alliance

---

- The "**Alliance for Transformation**" is a leading dialogue between the federal government and **decision-makers from businesses, trade unions and associations**. It was launched by the Scholz government in June 2022.
- It aims **to promote the transition to a sustainable energy system by fostering cooperation and exchange of knowledge** between stakeholders.
- The alliance helps identify funding opportunities, provides guidance on project development, and assists in navigating regulatory frameworks.
- Through **education campaigns, information dissemination, and participatory activities**, the alliance aims to **empower individuals and communities** to actively participate in the transition to a sustainable energy system.
- The following transformation topics are on the Allianz agenda for further meetings
  - **Climate neutrality and resource efficiency**
  - **Digital innovation and technological sovereignty**
  - **Modern and resilient state**
  - **A society open to innovation**

# Energy Transition Buildings Platform

---

- Since 2014, the **Energy Transition in Buildings Platform, work with stakeholders from real estate, commerce, industry, consumer groups and the public sector** to identify the many ways the energy transition can be applied in the buildings sector and to develop appropriate measures.
- The plenary session of the Buildings Platform is held once a year and brings together the relevant stakeholders from commerce, civil society, science and the appropriate government ministries.
- Buildings-related findings and updates from the working groups of the two Energy Transition Platforms on “Efficiency” and “Buildings” are discussed. Talks also take place with the Länder in parallel to this.
- The plenary is co-chaired by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety.
- **“Funding Programmes” Working Group**

The “Funding Programmes” Working Group mainly presents changes to the KfW funding for energy-efficient construction and refurbishment set up under the CO2 Building Renovation Programme

# Energy research networks

---

- The energy research networks are an initiative of the Federal Government's **National Action Plan on Energy Efficiency (NAPE)**. (2014)
- **Dialogue-oriented forums: platforms for exchange, facilitate dialogue between research, politics, and industry**, supported by the Federal Ministry for Economic Affairs and Climate Action (**BMWK**).
- Goals: **Knowledge transfer and participation**:
  - **foster relationships** between stakeholders from industry and science, policymakers
  - **knowledge dissemination**
  - discuss **application** of research findings,
  - offer opportunities for researchers' **participation in real-world energy policy**, and
  - increase transparency in **funding policies** through events, webinars, and opinion polls.
- **Broad topics**: Networks represent **Germany's research expertise in various fields related to the energy transition**, such as bioenergy, renewable energy sources, power grids, and systems analysis.
  - leading to joint research projects and faster translation of research findings into practical applications.
  - **Advisory boards and innovation platform**: Each network is provided with an advisory board to strengthen the dialogue between research, practice, and politics.

# German Energy Solutions Initiative

---

- The German Energy Solutions Initiative **supports small and medium-sized enterprises (SMEs)** offering energy solutions in areas such as renewable energy, energy efficiency, smart grids, and storage technologies, emphasis on **emerging technologies like power-to-gas and fuel cells**.
  - led by the Federal Ministry for Economic Affairs and Climate Action
  - aims to **facilitate the entry of German companies into international markets**
  
- Multiple phases: **market preparation, market-entry, and market consolidation.**
  
- Services provided:
  - detailed **foreign market information** through events, publications, and social media;
  - **matchmaking services** abroad in collaboration with **chambers of commerce**;
  - **export and project financing** consultancy
  - **marketing support** through participation in **trade fairs** and online showcases
  - the **promotion of reference projects** to raise awareness of German technologies.
  - **manager training programs and innovation seminars**

# Berlin Energy Transition Dialogue (BETD)

---

- The Berlin Energy Transition Dialogue (BETD) is an internationally recognized and influential event that has gained prominence since its establishment in 2015. It has become one of the world's foremost forums for discussions and deliberations on the global energy transition. It is the **largest event hosted by the Federal Foreign Office and the longest-running energy transition conference organized by the German government**,
- The BETD holds a significant position in shaping the global energy transition discourse. It is organized in collaboration with key stakeholders such as **the German Renewable Energy Federation (BEE), the German Solar Association (BSW), the German Energy Agency (DENA), and the consulting firm Eclareon.**
- The BETD serves as a platform for high-level engagement, bringing together key decision-makers from governments, global businesses, scientific communities, and international organizations and NGOs. One of the central messages conveyed at the BETD is the realization that achieving a 100% renewable energy transition is not only possible but also crucial in addressing the pressing challenges posed by climate change.
- The BETD has attracted prominent guests and speakers over the years, including distinguished figures such as President of the European Commission Ursula von der Leyen, U.S. Special Envoy for Climate John Kerry, President of the Republic of Kenya Dr. William Ruto, and Patricia Espinosa, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC).



# Start-up incubators: the Climate-KIC Green Garage

- The **Climate-KIC Green Garage** opened in 2013 in Berlin-Schöneberg as the **first start-up incubator in Germany that exclusively targets climate innovations.**
- The project was developed in the **EUREF-CAMPUS**, a newly born city district.
- The city district functions as a **forum and information hub** by means of events in connection with the subjects of environmental protection and sustainability, guided Campus tours



# ¡Muchas gracias!

---

## Contact:

Alexander Ochs

[ochs@sd-strategies.com](mailto:ochs@sd-strategies.com)

## Follow us:

[www.sd-strategies.com](http://www.sd-strategies.com)

<https://www.linkedin.com/company/sd-strategies>

Twitter: @sd\_strategies