Regulatory Frameworks for Community Energy

SolarPower Europe Buildings & Prosumers Workstream

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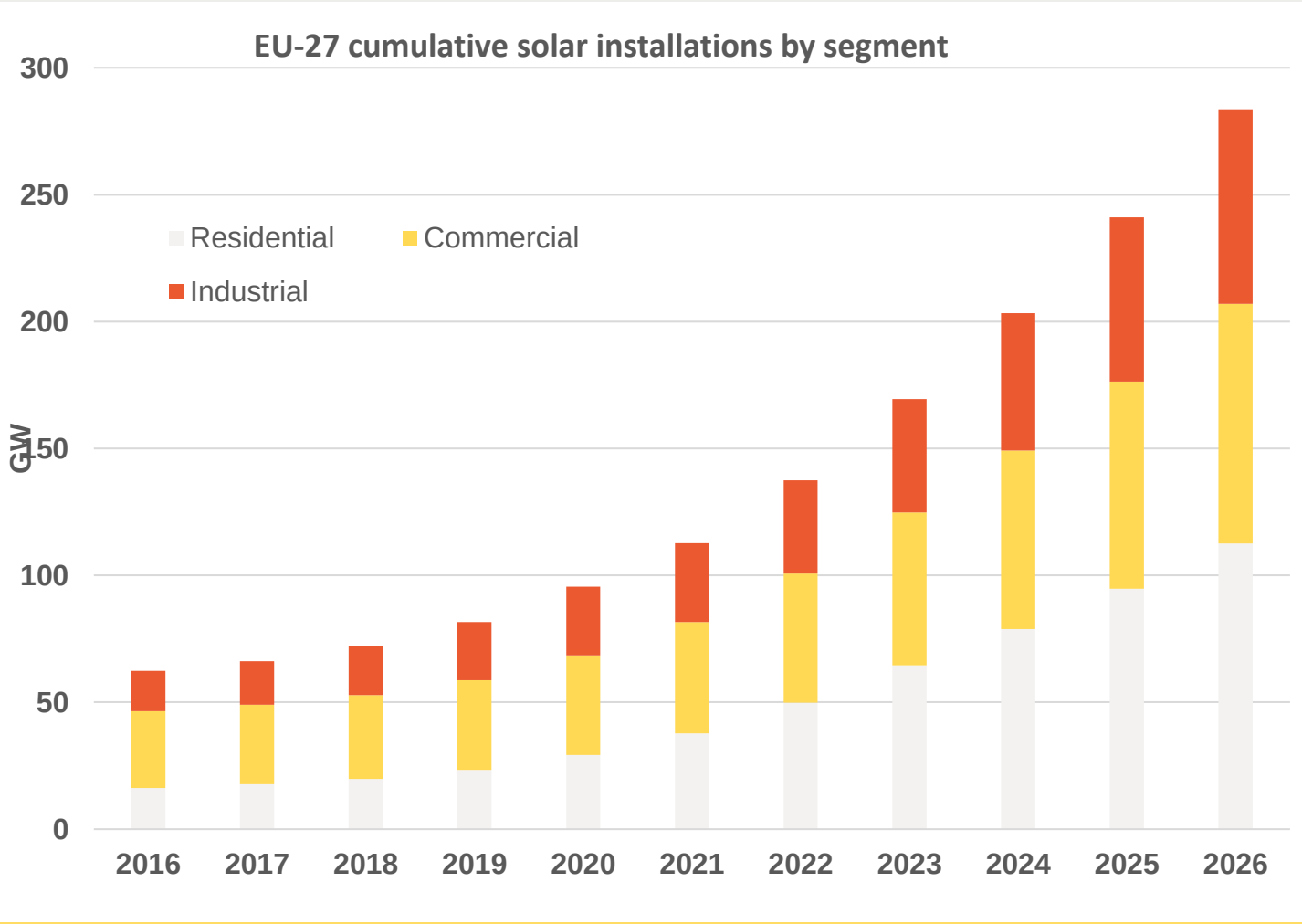
Demand for solar reached new heights in 2022

- **Europeans ran for solar to protect themselves against high energy prices**
- Annual solar installation growth increased from 9 % (2021) to 48 % (2022) in the commercial and industrial sector and by 42 % (2022) in the residential sector
- 2022 cumulative installations power the equivalent of 41 million homes



The solar market is booming

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But the existing frameworks have problems

50% of citizens are excluded	We shouldn't subsidise forever	Grid congestion	Limited self-consumption potential
Multi-dwelling units	**Feed-in tariffs**	**Net-metering + net-billing congest grids**	**Demand for grid electricity remains**
Unsuitable roofs	**Solar is CAPEX intensive**		

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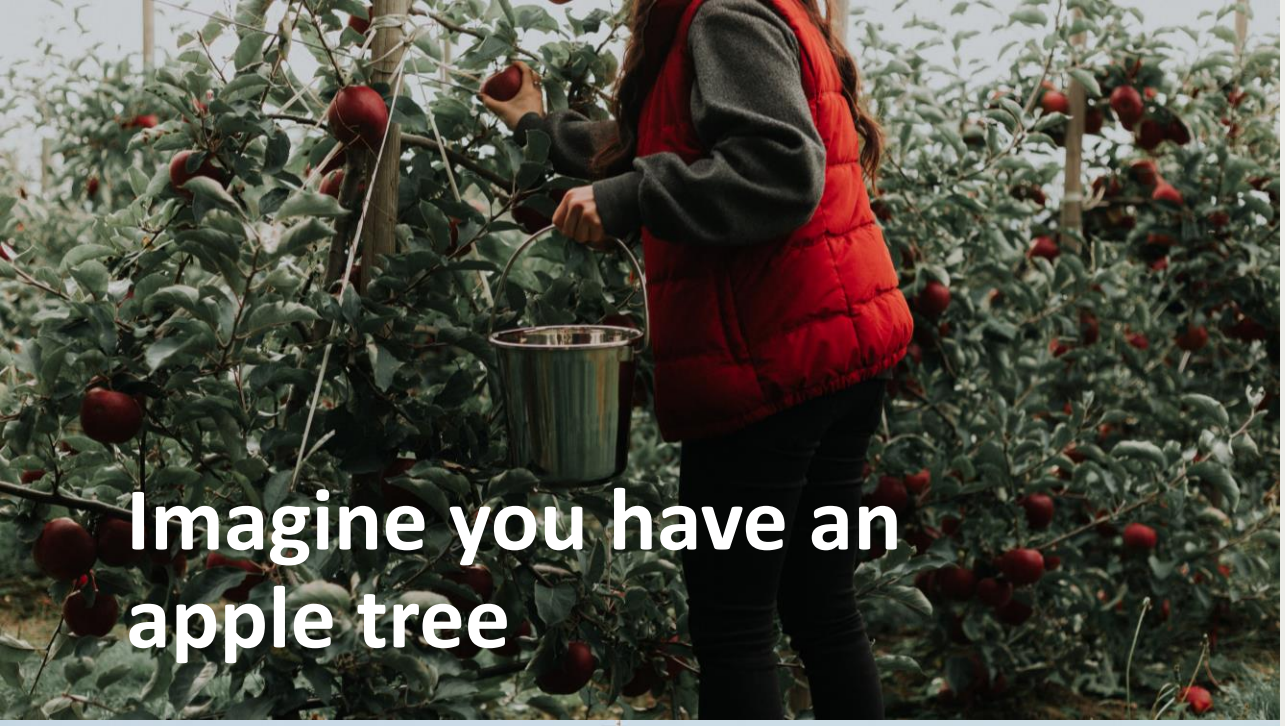


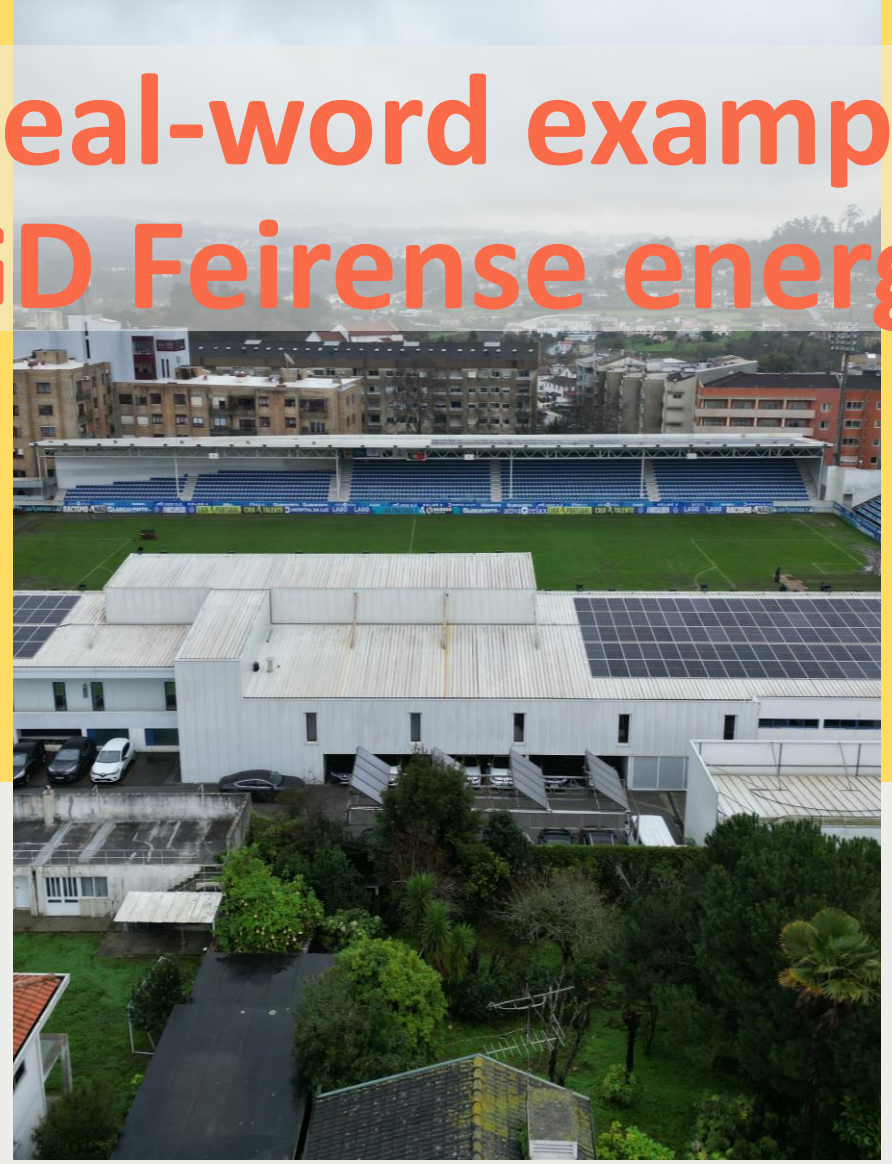
Your big apple tree produces more apples than you need

Your friend loves apples but doesn't have a tree

You 'share' apples with her

Energy sharing is a bit like that. But instead of apples, we're talking about electricity.

Real-word example: GD Feirense energy sharing



- **Solar panels (645 kWp) on GD Feirense football stadium** in Santa Maria da Feira, Portugal.
- **85% of the produced energy will be shared with families and corporates located in a 4 km radius**. The fee is expected to be 30% lower than the energy rate of market suppliers.
- **Greenvolt Comunidades**, a Portuguese solar supplier, implemented all administrative, commercial and technical steps for consumers.

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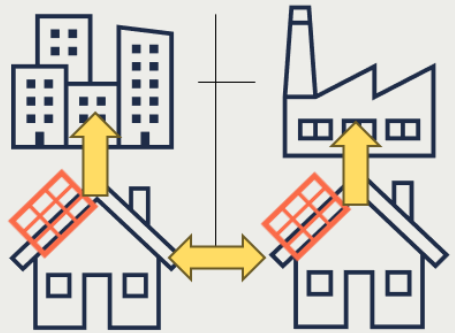
Greenvolt

Energy Communities vs. Energy Sharing

In Energy Communities citizens organize themselves for a non-profit activity

They're like your organic, non-profit food cooperative – you own and manage the cooperative without going through a store.

In Energy Sharing individuals trade electricity – extending rooftop PV self-consumption



They're like your organic food shop – a way of organising food production to value local, organic food.

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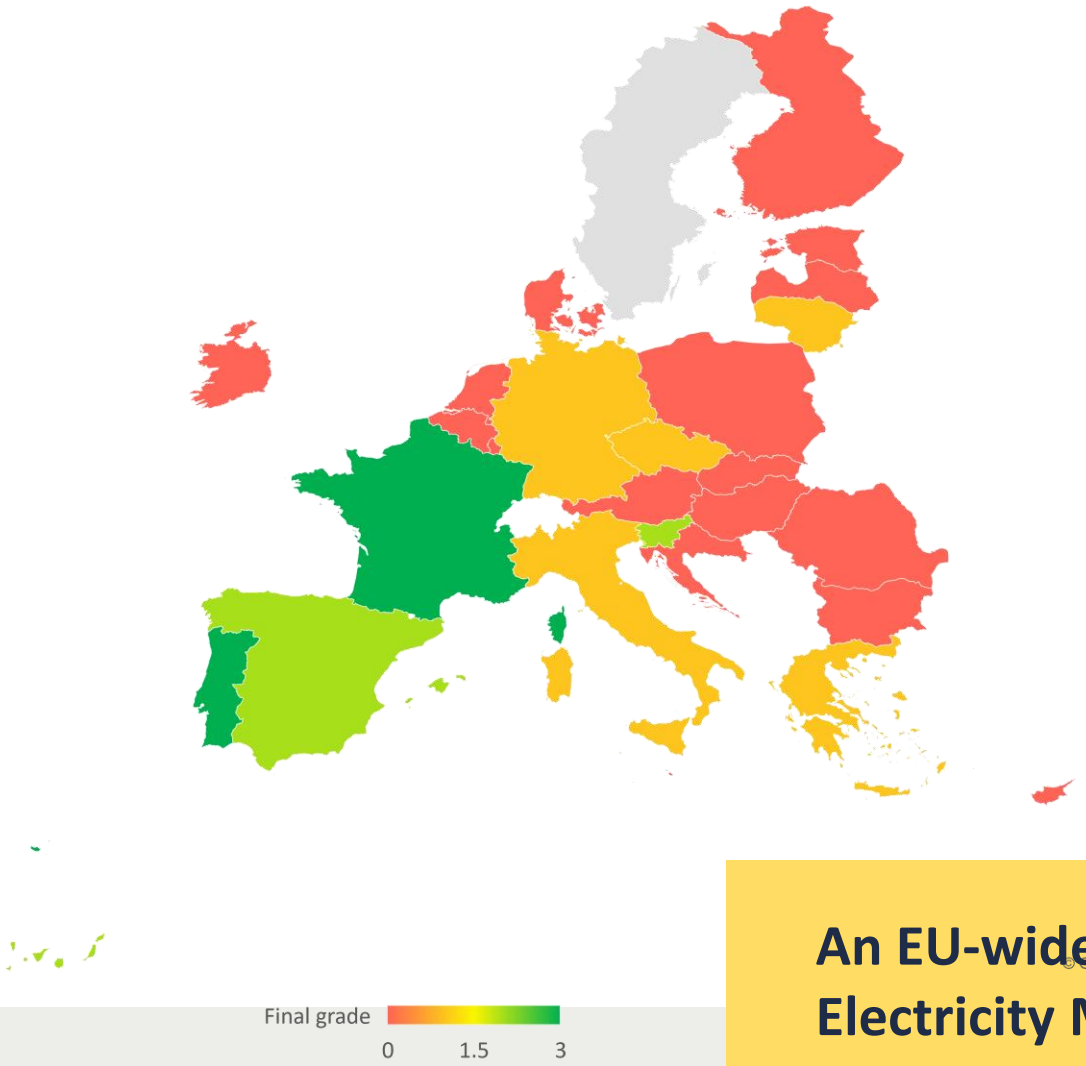
Very few countries allow for energy sharing or collective self-consumption



- **Dark green**: France and Portugal have very developed frameworks
- **Light green**: Spain and Slovenia have limited frameworks
- **Yellow**: frameworks mostly limited to multi-apartment buildings
- **Red**: No dedicated frameworks for electricity sharing beyond building premises

An EU-wide framework is now under discussion in the EU Electricity Market Desing

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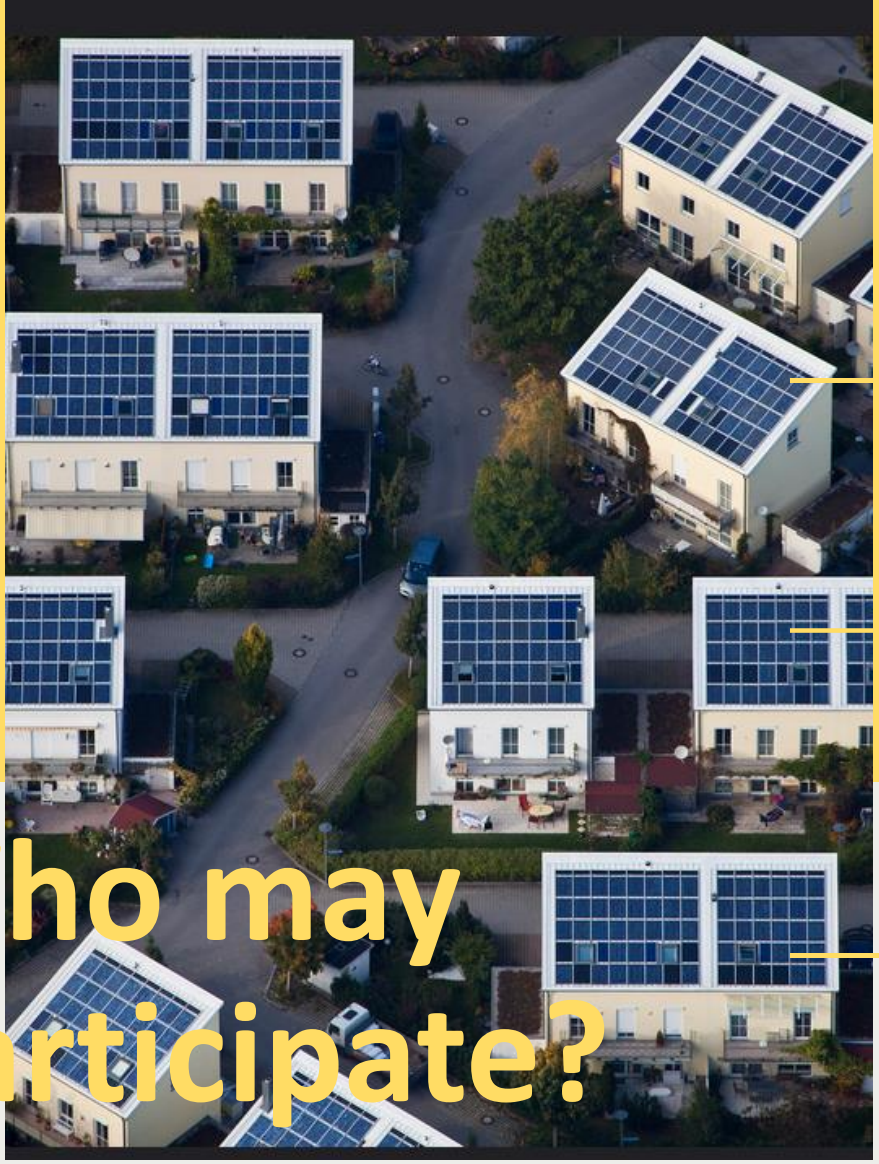

Who may participate?

- Participation should be **open to households, SMEs, large companies and public bodies.**
- Participants should have the right to delegate administration and ownership to a **commercial third party.**
- **Energy sharing should be limited to 5 MW per individual generation capacity.**

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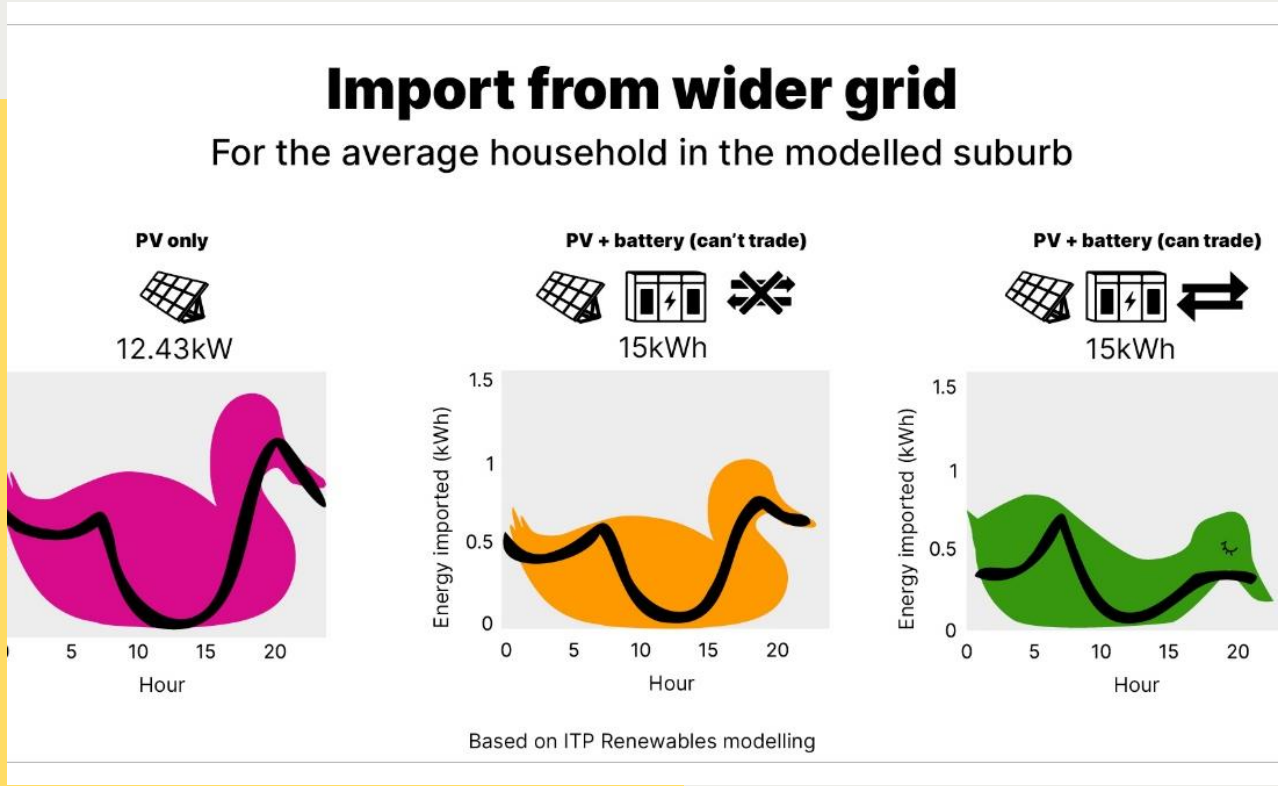
Grid operators are key facilitators

→ **On the balance sheets:** account for energy produced in one location to another location

- Forward calculation to sharing participants and suppliers
- Allow for static and dynamic sharing coefficients

→ **Collaborate with energy sharing operators**

- Dedicated, cost-reflective grid tariffs: remunerate third parties which mitigate grid congestion
- Communicate congestion-related data to such parties



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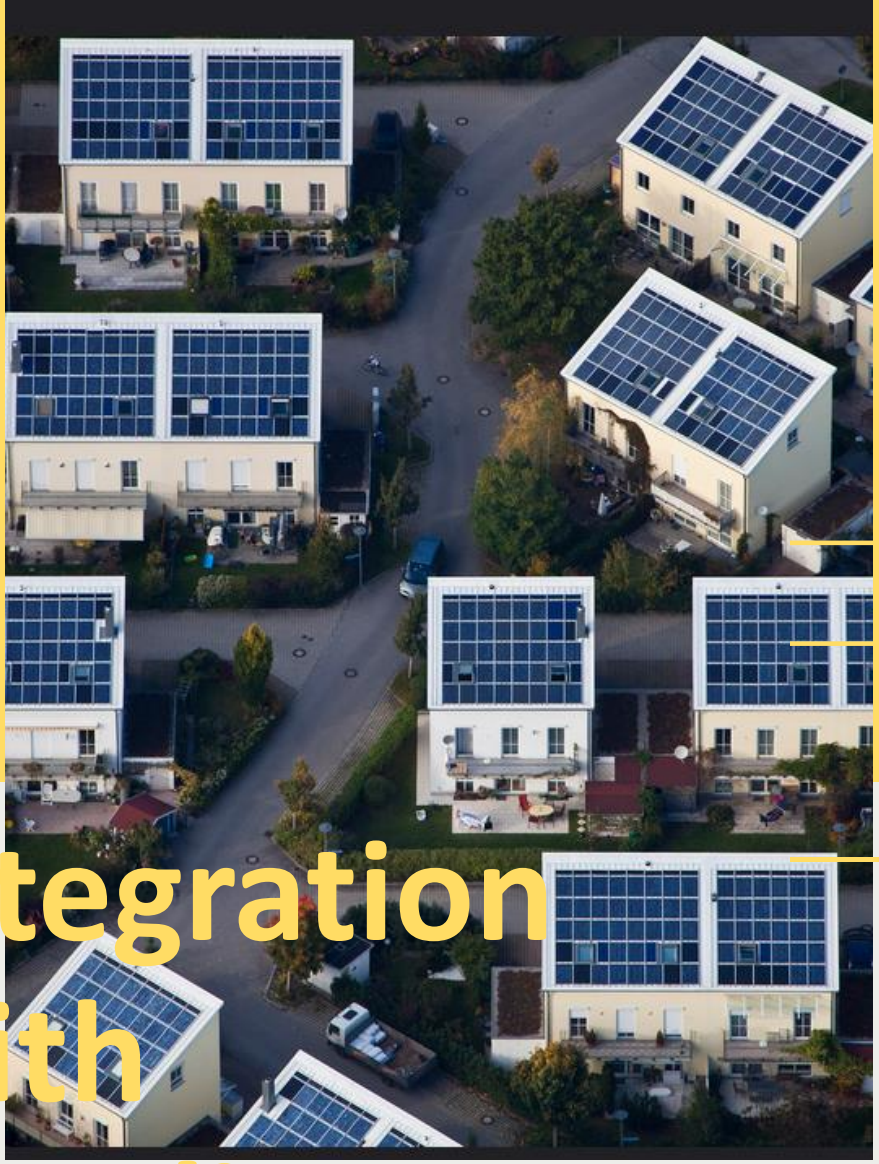

Integration with suppliers

Energy Sharing vs. Traditional Supply

- Energy sharing is different from supplier activities.
- **Registered electricity suppliers should keep the balancing responsibility** for consumers participating in energy sharing.
- **Electricity suppliers shall refrain from compensation payments and charge only limited, proportionate additional costs.**

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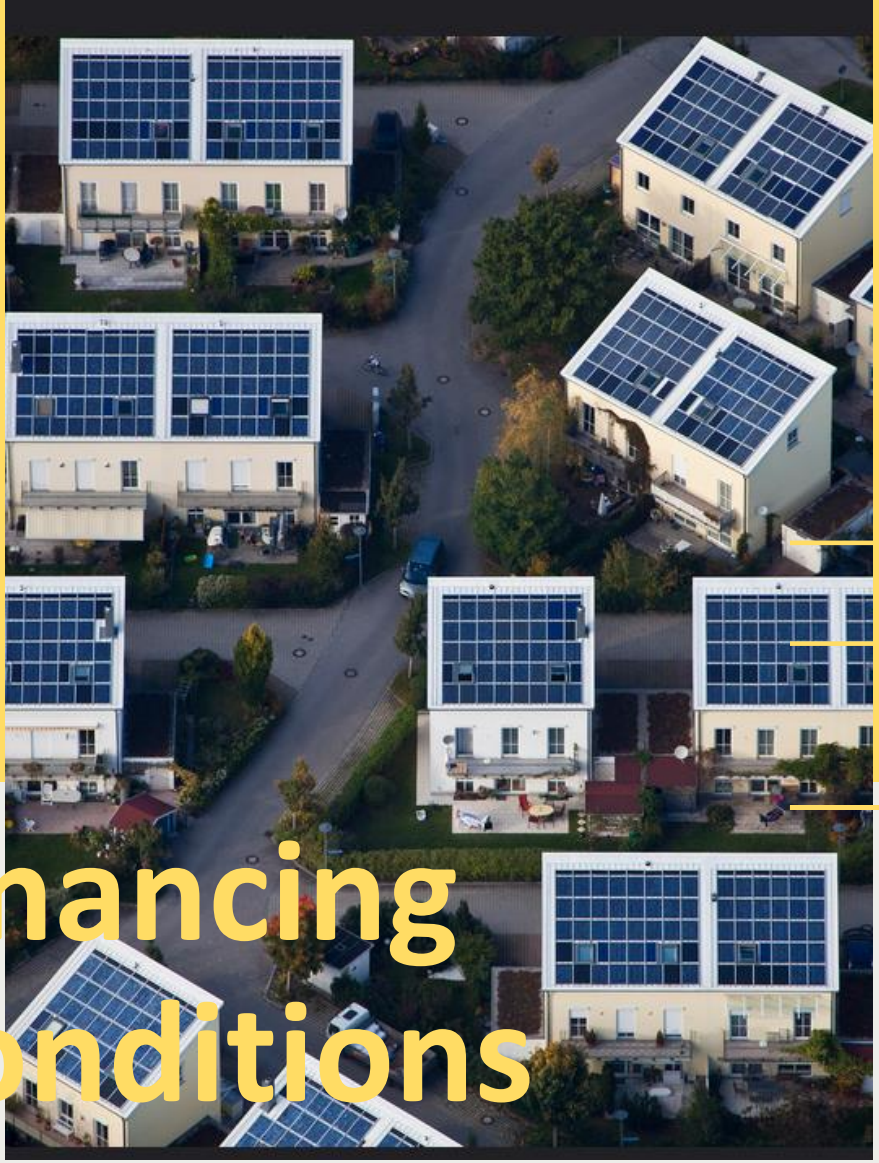

Financing Conditions

Who bears the risk?

- Gov’ts can set up de-risking schemes, i.e. guarantees
- Professional actors can use equity finance or green bonds
- Leverage energy-as-a-service companies

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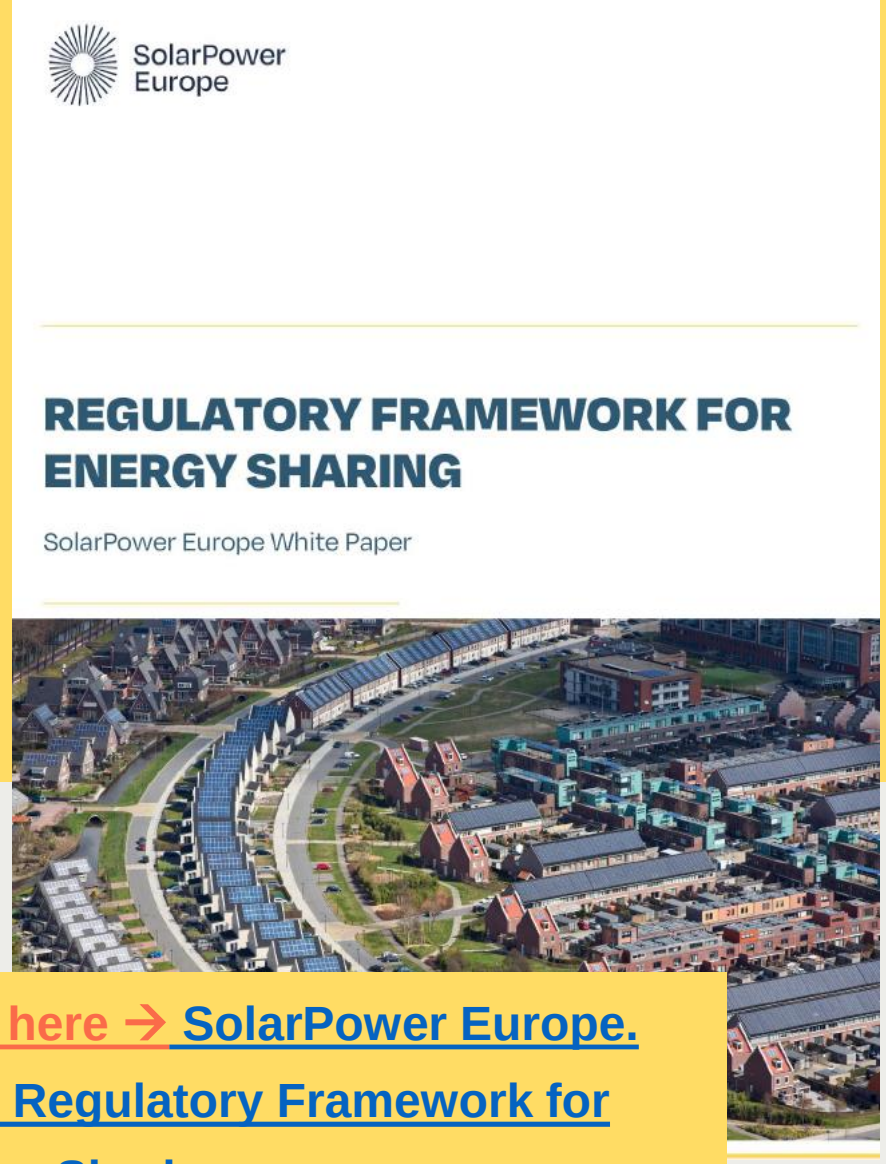

Click here → SolarPower Europe. 2023. Regulatory Framework for Energy Sharing

Details for practical implementation

… in our report on energy sharing

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