



Städtische Werke  
Aktiengesellschaft

# Cooperative Windfarm development to create regional added value

with Stadtwerke Kassel and SUN Stadtwerke Union Nordhessen

Kassel, 05.05.2022

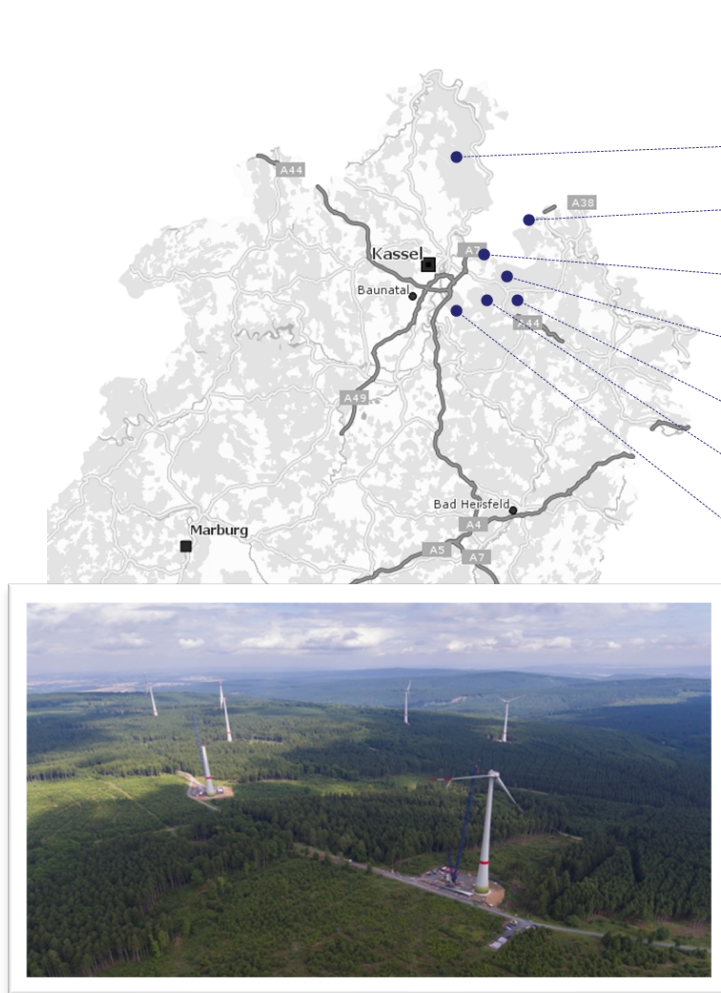
Städtische Werke AG  
Lars Rotzsche

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# Agenda

- 1. Städtische Werke AG Kassel and Windfarm Projects**
2. Participation creates acceptance
3. Wind energy in the forest with regional added value

# Project references from Städtische Werke AG and SUN



- Reinhardswald (112 MW in Planung mit EGR, EAM und SWE)
- Steinberg (ca. 4 WEA in Planung, mit SUN)
- Niestetal (6 MW Wind + 0,7 MW PV – in Betrieb)
- Kreuzstein (24 MW in Betrieb, mit SUN)
- Rohrberg (15 MW in Betrieb)
- Stiftswald (27 MW in Betrieb)
- Söhrewald (15 MW in Betrieb)



# Agenda

1. Städtische Werke AG Kassel and Windfarm Projects
2. **Participation creates acceptance**
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# Active citizen participation creates acceptance

Project references from Städtische Werke AG

**Städtische Werke  
AG Kassel**

**various citizen  
energy cooperatives**

**Söhrewald 15 MW  
(2013)**

**Niestetal 6 MW  
(2014)**

**Kreuzstein 24 MW  
(2017)**

**Stiftswald 27 MW  
(2016)**

**Rohrberg 24 MW  
(2015)**

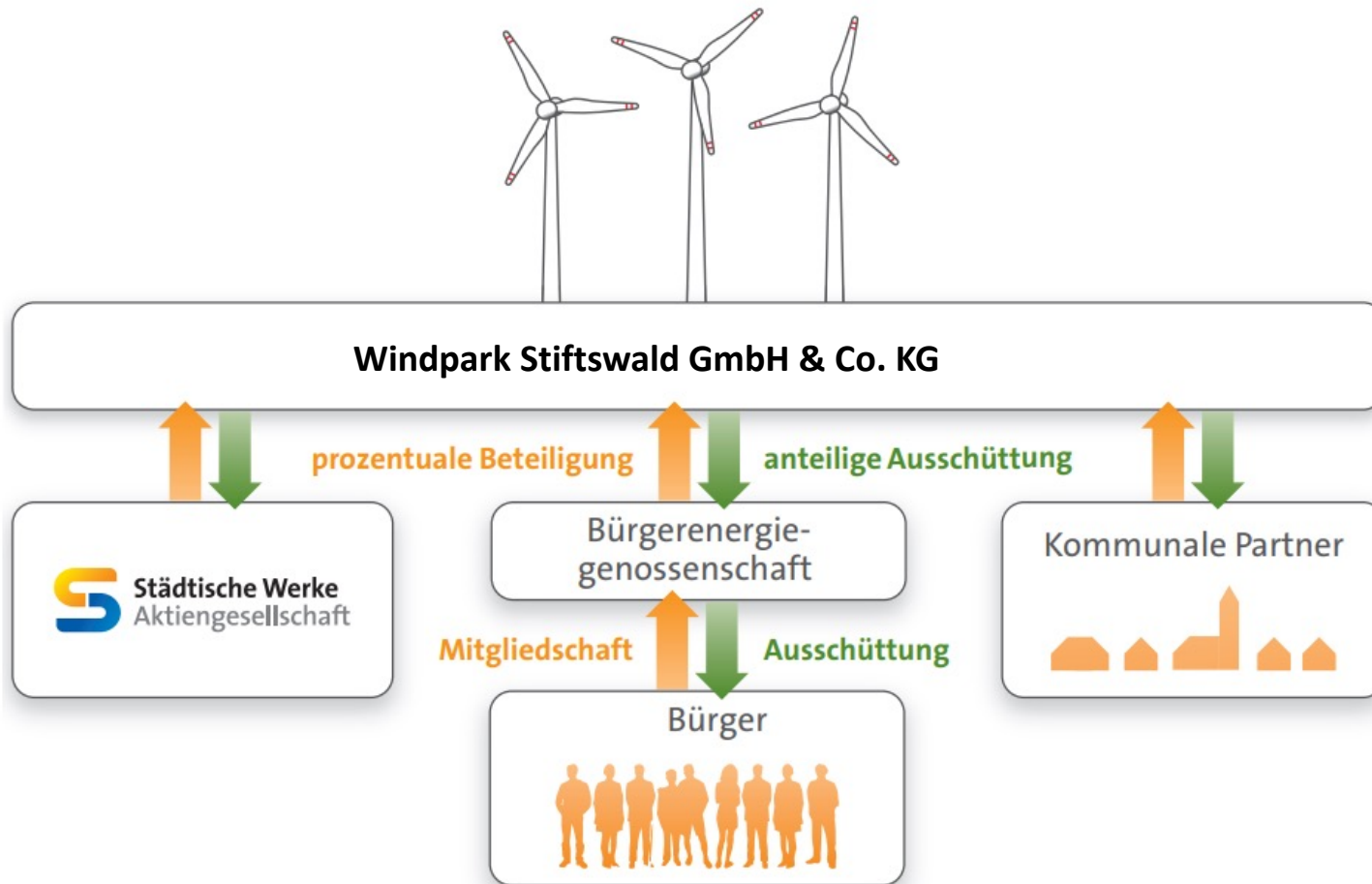
**Reinhardswald 100 MW  
(2022, Genehmigung)**

**other local  
municipal utilities  
of SUN**

**Municipalities**

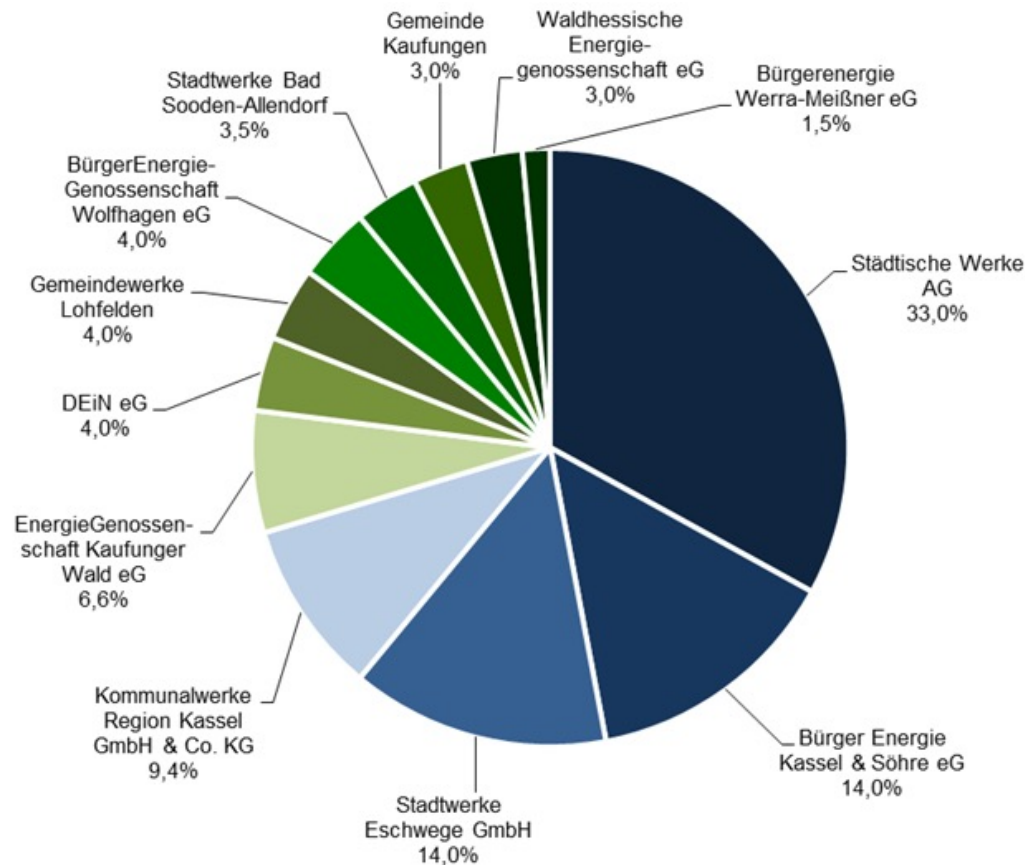
# Participation creates acceptance

## Best practise example Windfarm Stiftswald



# Participation creates acceptance

## Best practise: Regional added value through citizen participation at the Stiftswald windpark



12 shareholders:

- 6 citizen energy cooperatives with approx. 3000 members
- 2 neighboring municipalities
- 4 regional public utilities / communal utilities

**Together we generate regional added value**

# Agenda

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2. Participation creates acceptance
3. **Wind energy in the forest with regional added value**



# Wind energy in the forest with regional added value

Study of Stadtwerke Union Nordhessen (SUN): [www.sun-stadtwerke.de](http://www.sun-stadtwerke.de)

- SUN, cooperation of six municipal utilities (city and county of Kassel, districts „Werra-Meißner“ and „Schwalm-Eder“)
- SUN policy is cooperate with local shareholders especially municipalities, energy cooperatives, local banks....
- Motivation of the study: Look at the influence of payments for rent for properties



**SUN - Energy Transition Study 2012 :**

**The region has the potential to make an important contribution to sustainable energy supply with regional added value**

[www.sun-stadtwerke.de](http://www.sun-stadtwerke.de)

# Wind energy in the forest with regional added value

## Study of Stadtwerke Union Nordhessen

- RAV for an average windpark in the SUN region, 21 MW, 7 wind turbines > „Windpark SUN“ (real data)
- Compared with RAV of a windpark developed and operated by a supra-regional project developer > „Extern“ (based on assumptions)
- Compared with the total cash flows of a windfarm > „Total“ (real data)



# Wind energy in the forest with regional added value

## Study of Stadtwerke Union Nordhessen (SUN)

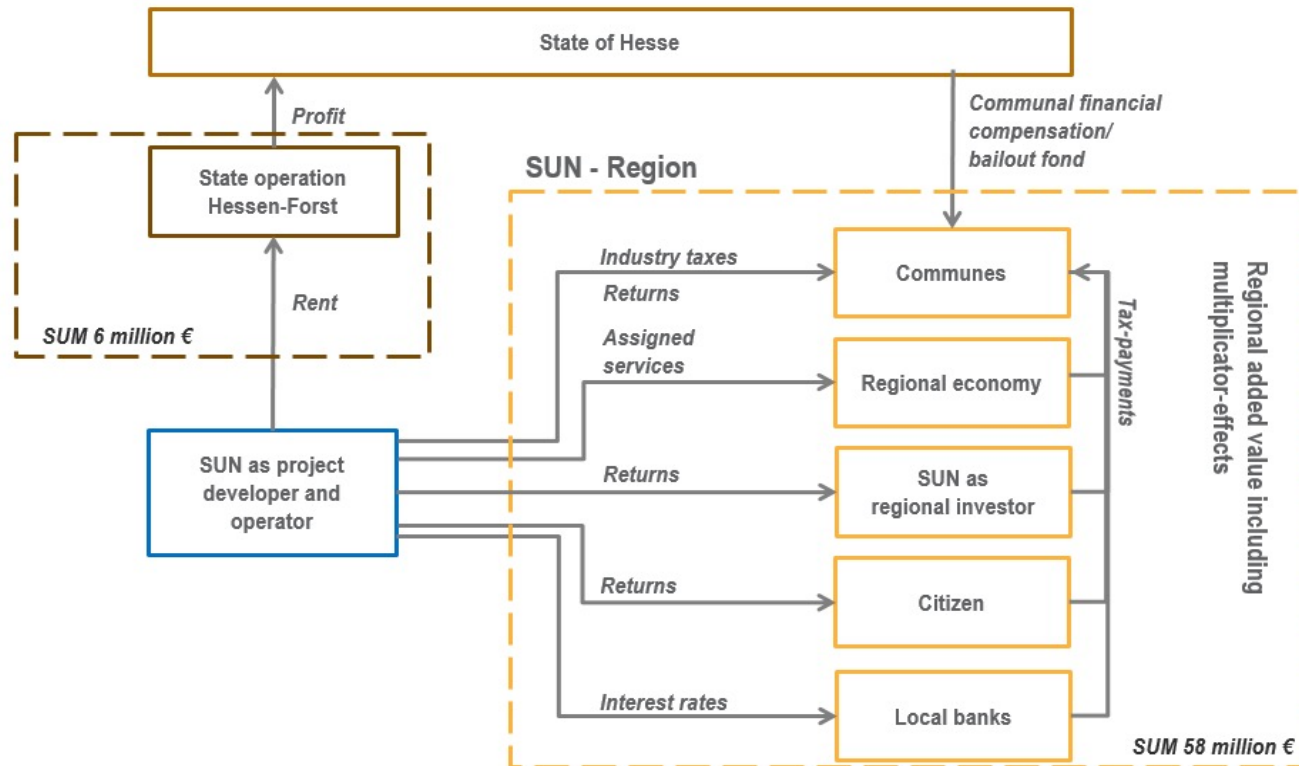
What are the main effects compared to the “Extern” scenario?

	„Extern“	„WP SUN“	Difference
Rent-based payments	10 Mio. €	6 Mio. €	+ 4 Mio. €
<b>Regional added value (incl. multiplier-effects) in the SUN-Region:</b>			
Investments in the location and continuous regional turnover in the local economy	3,5 Mio. €	20,9 Mio. €	- 17,4 Mio. €
Industry taxes for municipalities	3,5 Mio. €	4,9 Mio. €	- 1,4 Mio. €
Communal income (regional investors)	-	1,6 Mio. €	- 1,6 Mio. €
Income of citizens (private investors)	-	9,1 Mio. €	- 9,1 Mio. €
Income of SUN (regional investors)	-	20,0 Mio. €	- 20,0 Mio. €
Interest payments to local banks	-	1,5 Mio. €	- 1,5 Mio. €
<b>Total</b>	<b>7,0 Mio. €</b>	<b>58,0 Mio. €</b>	<b>- 51 Mio. €</b>

# Wind energy in the forest with regional added value

## Study of Stadtwerke Union Nordhessen (SUN)

### Influence of ownership and rent-based payments: variant „WP SUN“



# Wind energy in the forest with regional added value

## Study of Stadtwerke Union Nordhessen (SUN)

### Central results

- While an extern project operator of a wind park analog to the „WP SUN“ creates 4 million € additional rent-based income compared to a regional project developer, he simultaneously involves the relinquishment and loss of 51 million € regional added value
- In the „WP SUN“-variant each installed MW creates a regional added value of 2,76 million € (including multiplier-effects).
- In the “WP-SUN”-variant about 59% of the overall payments (Total) can be created regionally, respectively they can be created as regional added value including multiplier-effects

# Wind energy in the forest with regional added value

## Study of Stadtwerke Union Nordhessen (SUN)

### Central results

- Municipalities need to be participating actively in wind park projects, to ensure that all citizens can profit either directly or indirectly.
- Financing through citizen-funds is an additional option to optimize the regional added value.
- It is necessary that regional investors and operators are bound by a long-term engagement.
- When leasing, landowners do not have to look for the highest rent - but for the most acceptance-promoting operator concept with citizen participation.

### Further Experience:

**The EU state aid guidelines forces public owners to lease according to the highest rental income and not according to the best citizen energy concept**

**In cooperation we trust!**

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