



Städtische Werke
Aktiengesellschaft

Cooperative Windfarm development to create regional added value

with Stadtwerke Kassel and SUN Stadtwerke Union Nordhessen

Kassel, 05.05.2022

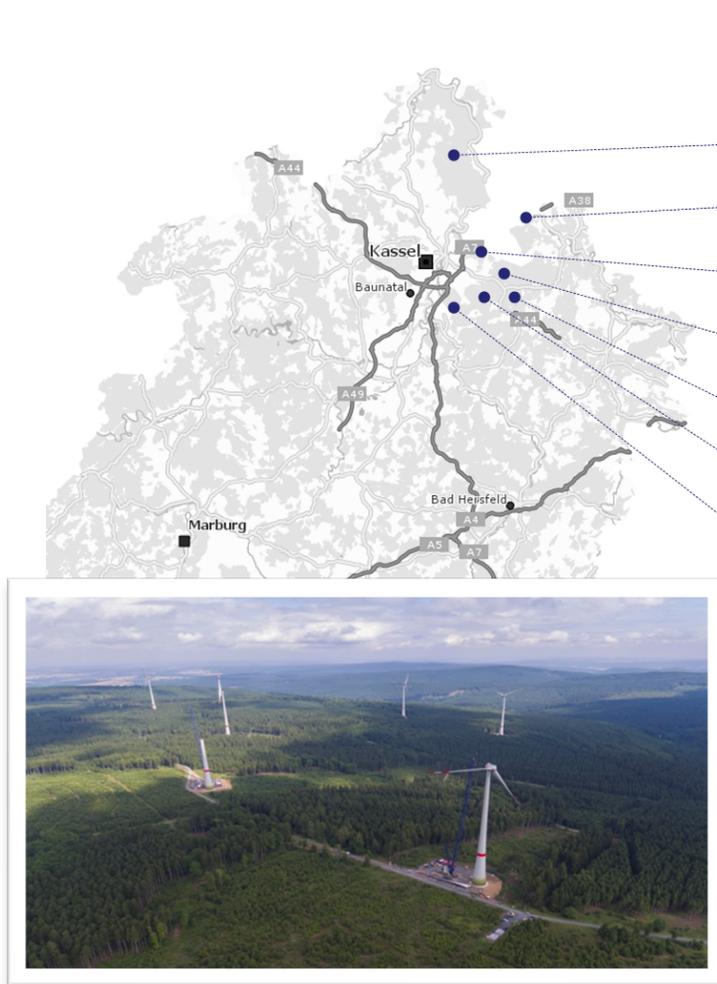
Städtische Werke AG
Lars Rotzsche

Hier ist Ihre Energie.

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)



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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)**

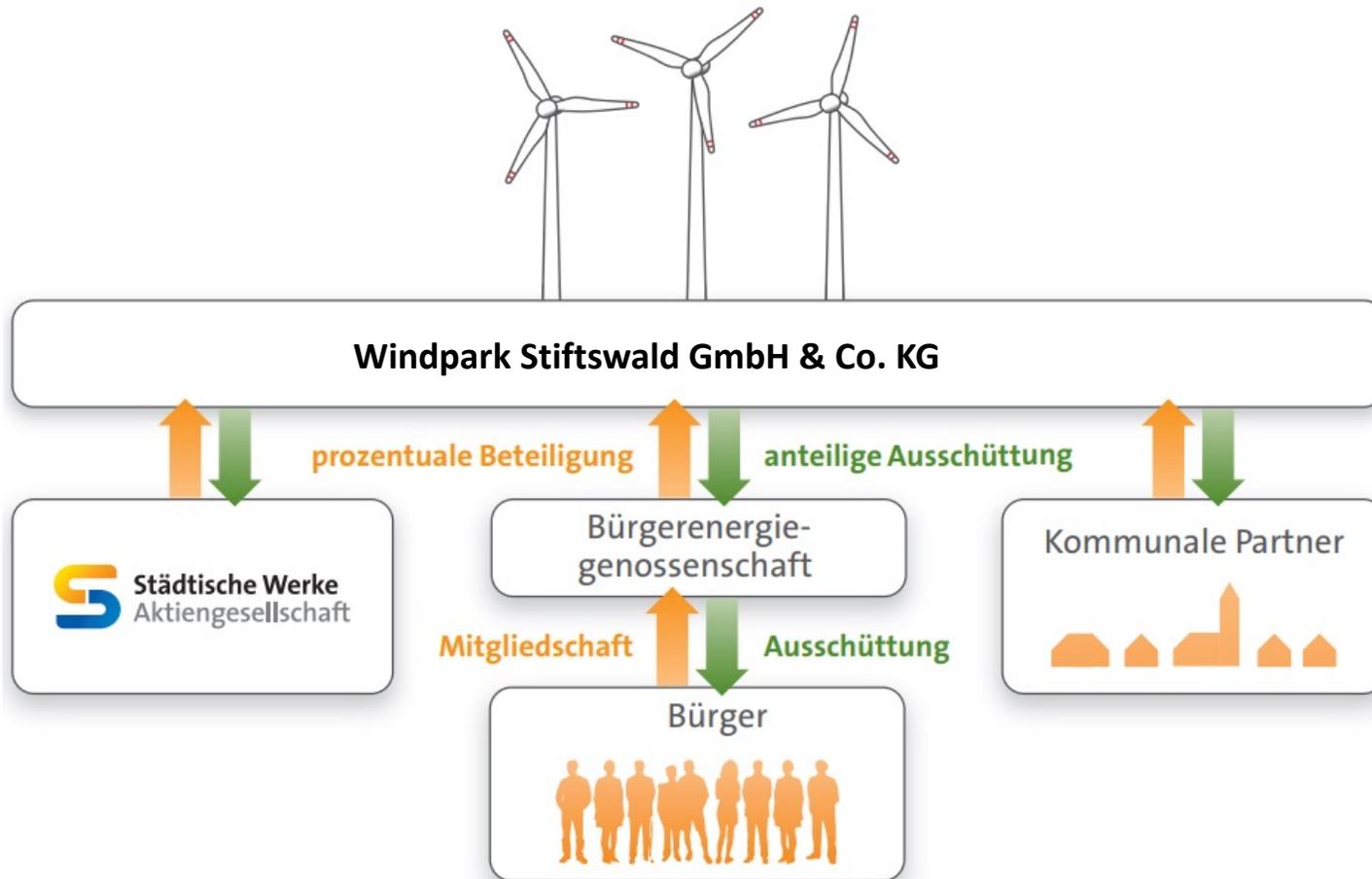
**Reinhardswald 100 MW
(2022, Genehmigung)**

**other local
municipal utilities
of SUN**

Municipalities

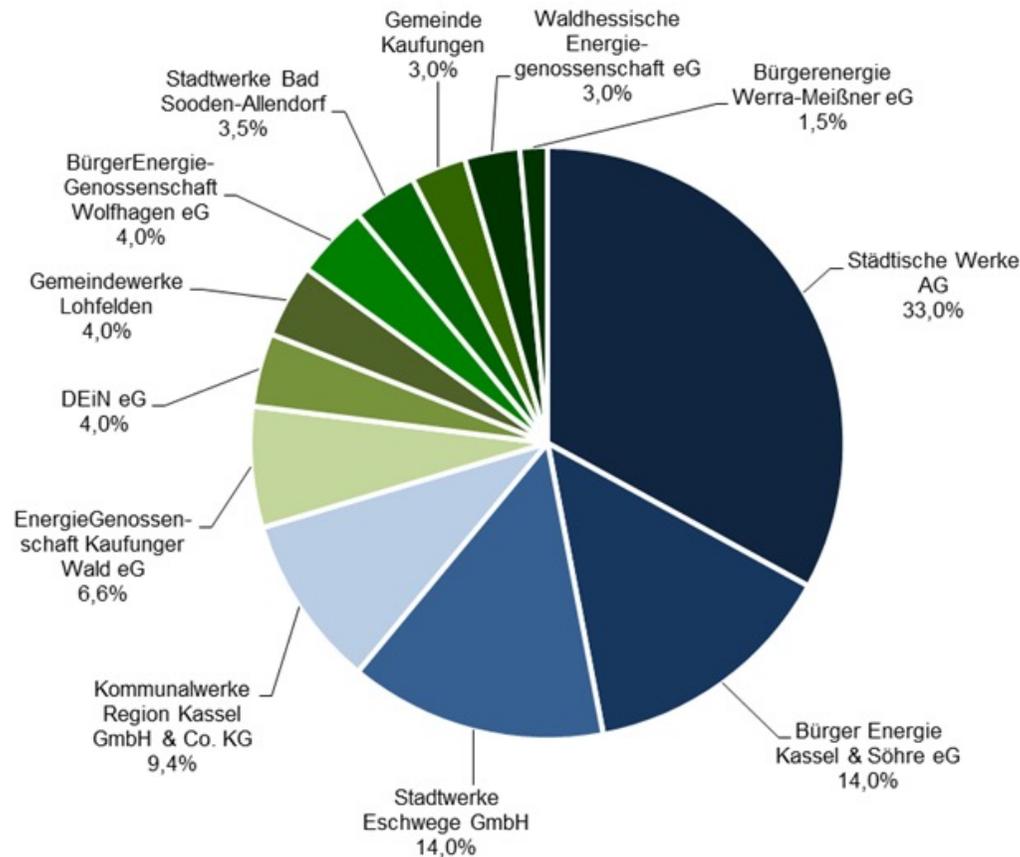
Participation creates acceptance

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

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Wind energy in the forest with regional added value

Study of Stadtwerke Union Nordhessen (SUN): 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 :

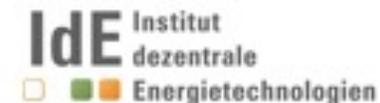
The region has the potential to make an important contribution to sustainable energy supply with regional added value

www.sun-stadtwerke.de

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)

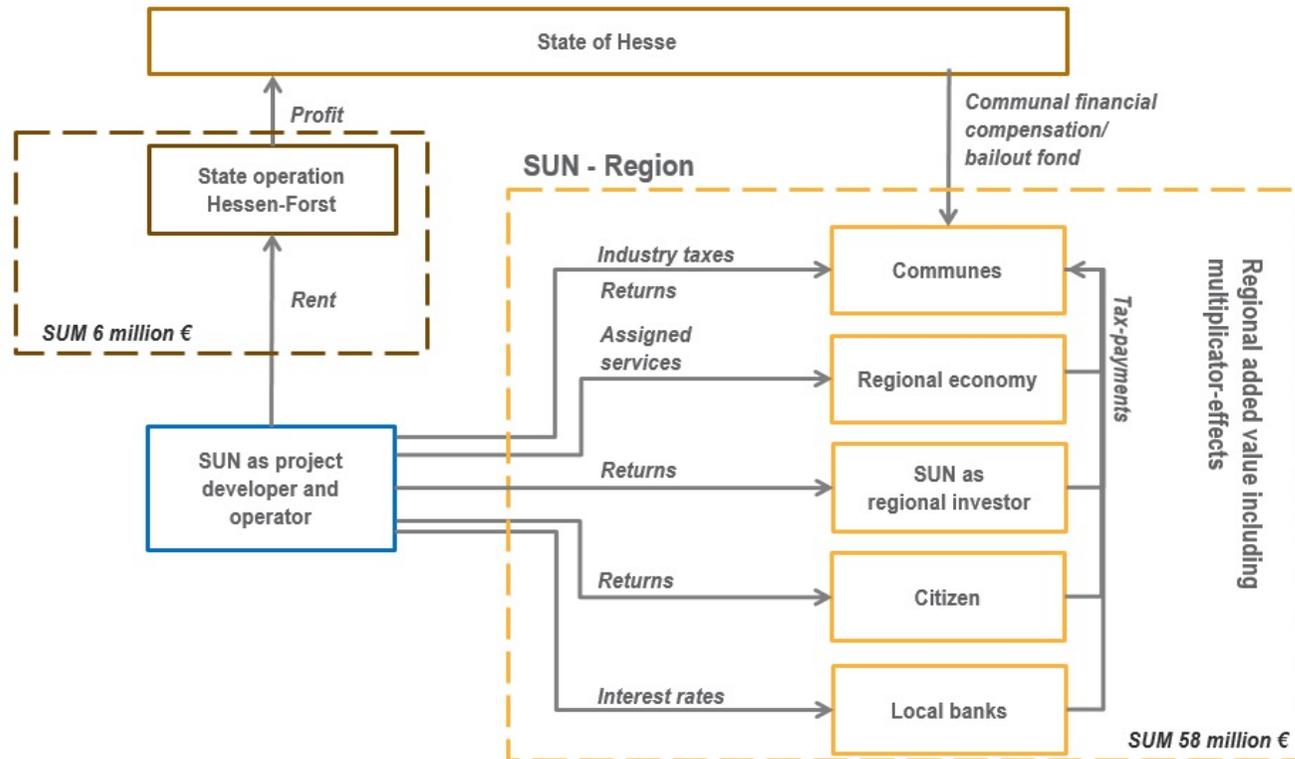
What are the main effects compared to the “Extern” scenario?

	„Extern“	„WP SUN“	Difference
Rent-based payments	10 Mio. €	6 Mio. €	+ 4 Mio. €
Regional added value (incl. multiplier-effects) in the SUN-Region:			
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. €
Total	7,0 Mio. €	58,0 Mio. €	- 51 Mio. €

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!

Städtische Werke Aktiengesellschaft
Königstor 3-13
34117 Kassel

Lars Rotzsche
Leiter Windenergie

0561 782-2927
lars.rotzsche@sw-kassel.de

www.sw-kassel.de
www.sun-stadtwerke.de



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