

RABBLE

Unlocking the solar energy potential of all roofs

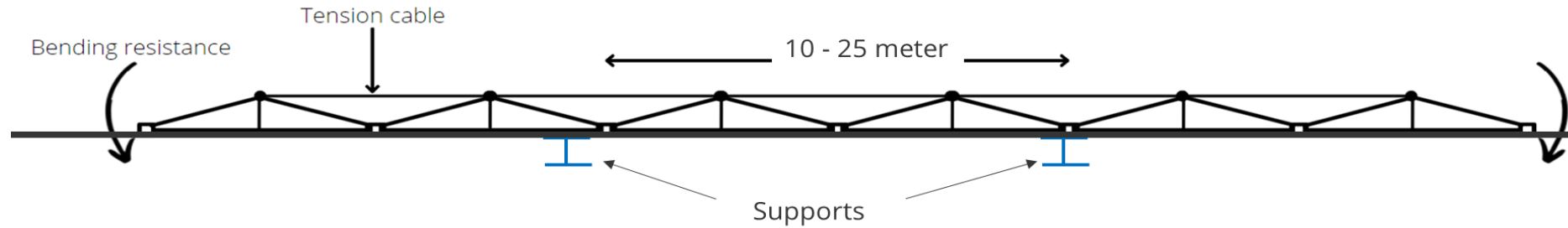
& carparks



Rabobank Impactfonds

Winner Innovation Award 2023

RABLE technology - 3 applications



- **Rable2Go**

For residential flat roofs

2 Panel module - 20 minutes to install - "stekker" system

-> Up to 25% of annual electricity consumption covered for 850,= EUR



- **Rable4Roofs**

For commercial flat roofs

4 panels module - ballast free system - supports on roofbeams

-> Weak roofs can be PV equipped without constructive renovations



- **Rable10Park**

For large solar carports

10 panel module - serial construction - 80 panels per ground column

-> Making the business case work for solar carports by using less columns

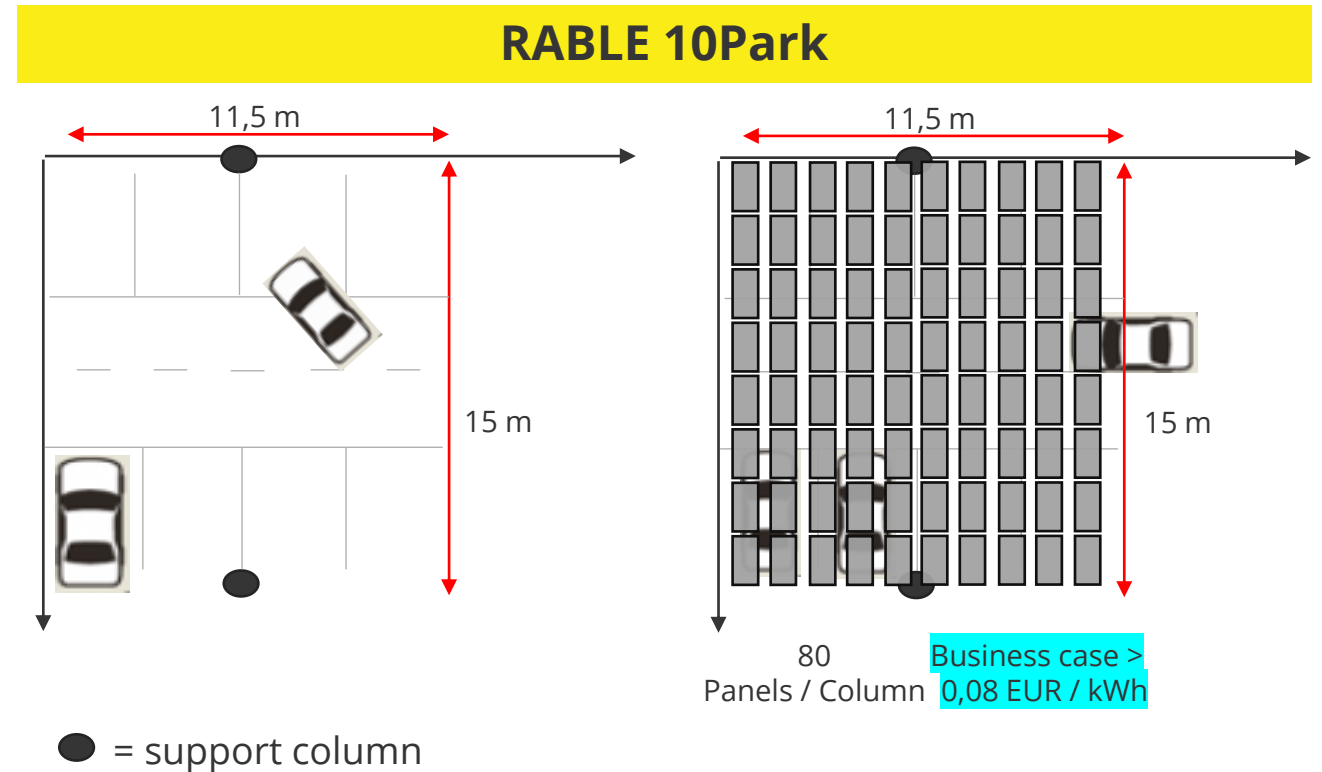
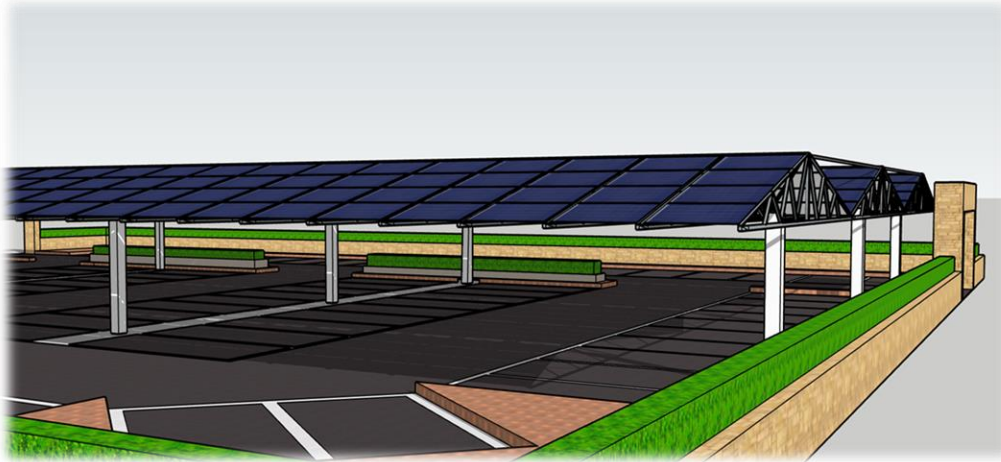
RABLE for carpark

What is the key issue ?

- Price per kWh at PV parking lots is too high
- Due to high construction costs, in particular costs of ground columns & foundation

Carpark PV Solution

- Apply lattice technology of RABLE XL PV rooftop
- **Reducing the amount of required support columns by > 50%**
- Providing a mounting structure that holds 80 panels per support column



Business Case – Prijs calculatie

Project	Parkeerplaats	Paneel	450Wp
		Dimensies	176 X 1134 X 30mm
		Aantal	2048 panelen
			Prijs p. paneel
Hardware	PV Mono Full Black	€	89
Hardware	Boven constructie	€	138
Hardware	Staanders + fundering	€	40
Hardware	Omvormers	€	19
Hardware	Cables & connectors	€	18
Hardware	Verdeel inrichting	€	11
Services	DC Installatie	€	40
Services	Veilig werken voorziening	€	8
Services	Transport (incl. kraan)	€	6
Services	Bouwplaats voorziening	€	3
Services	Engineering Service	€	25
		Installatie Prijs per paneel	€ 397
		Installatie Prijs per kWp	€ 881

Kosten Project	€	812.032	EUR
Levensduur		20jaar	
Opbrengst per jaar		783.360	kWh
Opbrengst over levensduur		15.667.200	kWh
Onderhoud per jaar (@ 2,5%)		406.016	EUR
		Prijs per kWh	€ 0,08 EUR/kWh

Other installation features :

- Minimum surface 300 m2 (16 cars)
- Structure is demountable (demontabel) up to the foundation level
 - Helpful in permissions if not fixed structure
- 99% watertight
- 1e Demo project will get subsidies !
- RABLE has installation partners ready to start

Special opportunity today :

- See our prototype in KD Lab !