Climate impact: Mainstream vs Low-Carbon Solar panels

concept

Emissions during production

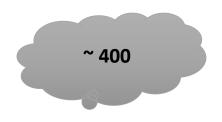
kg CO₂-eq per 380 W_o PV-module

CO₂ pay-back time in the Netherlands*

by preventing emissions in fossil power plants

Mainstream PV module

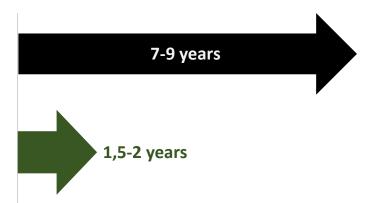
crystalline Silicon from China >90% market share in NL



Low carbon PV module

Avg of top 5 low carbon PV Commercial scale production

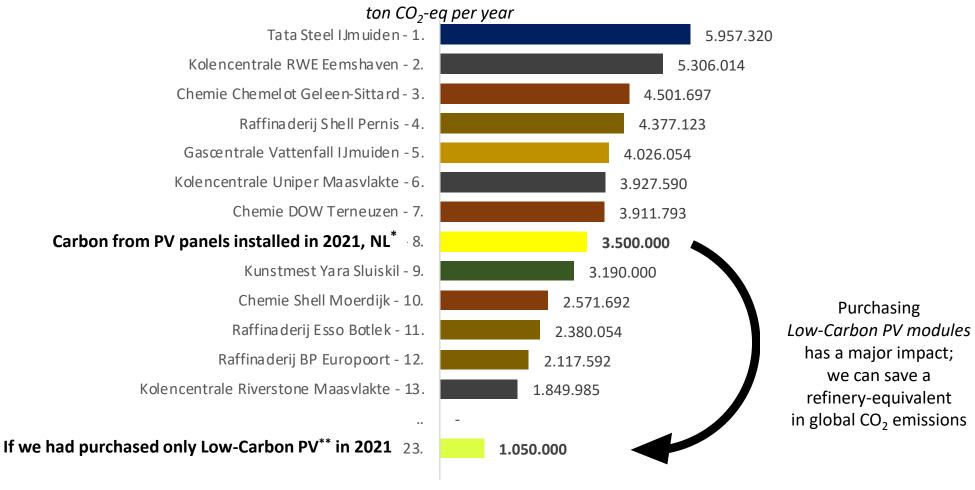




*) Assumptions: Installation in 2024, East-West on flat roof, in middle of Netherlands, degradation 0,5%/jr; electricity mix and carbon emissions develop along government ambitions

Durable PV potential impact in NL: 2,5 megaton CO₂ /yr





Notes

The majority of carbon emssions from PV module production takes place in China; these 'scope 3' emisisons are normally not considered

*) in 2021 (and 2019, 2020 also) ~ 3,5 GW_p of new PV modules were installed in the Netherlands; assumption 1 ton CO2-eq /kWp for mainstream PV

**) Assumption: 0,3 ton CO2-eq /kWp for Low Carbon PV

WORK		TARGET
PACKAGE	TASK	DUE DATE
WP 1. MAN	AGEMENT OF COMMUNITY AND DIGITAL PORTAL	
	1.1 Identify and contact additional CPOs/public PV buyers in additional countries	Jun'23
	1.2 Align agenda (actions, meetings)	Jun'23
	1.3 'About Us' document for general audience & publish on bigbuyers website	Jun'23
	1.4 Portal management	
	1.5 Webinars, workshops	
	1.6 Organize meetings and events	
	1.7 Project management	
WP 2. KNO	WLEDGE AND INSIGHTS	
	2.1 Introductory documents and impact sheet (presentation/whitepaper)	Apr'23
	2.2 Sustainability issues	Q3'23
	2.3 Market & Product insights	Nov'23
WP 3. TOOL	S, TEMPLATES, EXAMPLES AND GUIDES	
	3.1 Tools	Q1'24
	3.2 Sustainable PV modules - templates and example clauses of selection criteria in tenders	Q4'23
	3.3 Guides for public buyers	Q2'24
	3.4 PPA contracts	Q2'24
WP 4. BEST	PRACTICES AND GUIDELINES	
	4.1 Financials and Risks	Q1'24
	4.2 Eco-friendly PV installations	Q1'24
WP 5. LOBBY	ING FOR INCENTIVES FOR SUSTAINABLE PV	
	5.1 Financial incentives	Q3'24
	5.2 Regulatory requirements	Q3'24
WP 6. DISSEN	/INATION IN YOUR COUNTRY	
	6.1 Translate documents (if needed)	Q3'24
	6.2 Organize webinars/meetings for other public organisations	Q3'24