

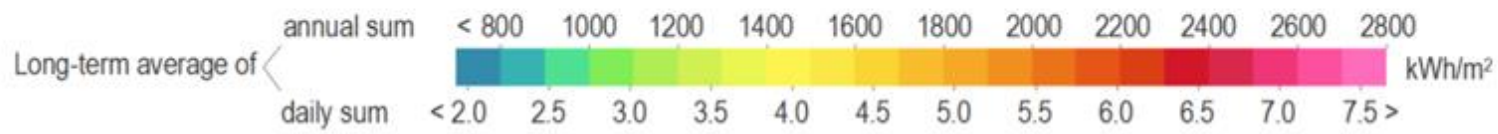
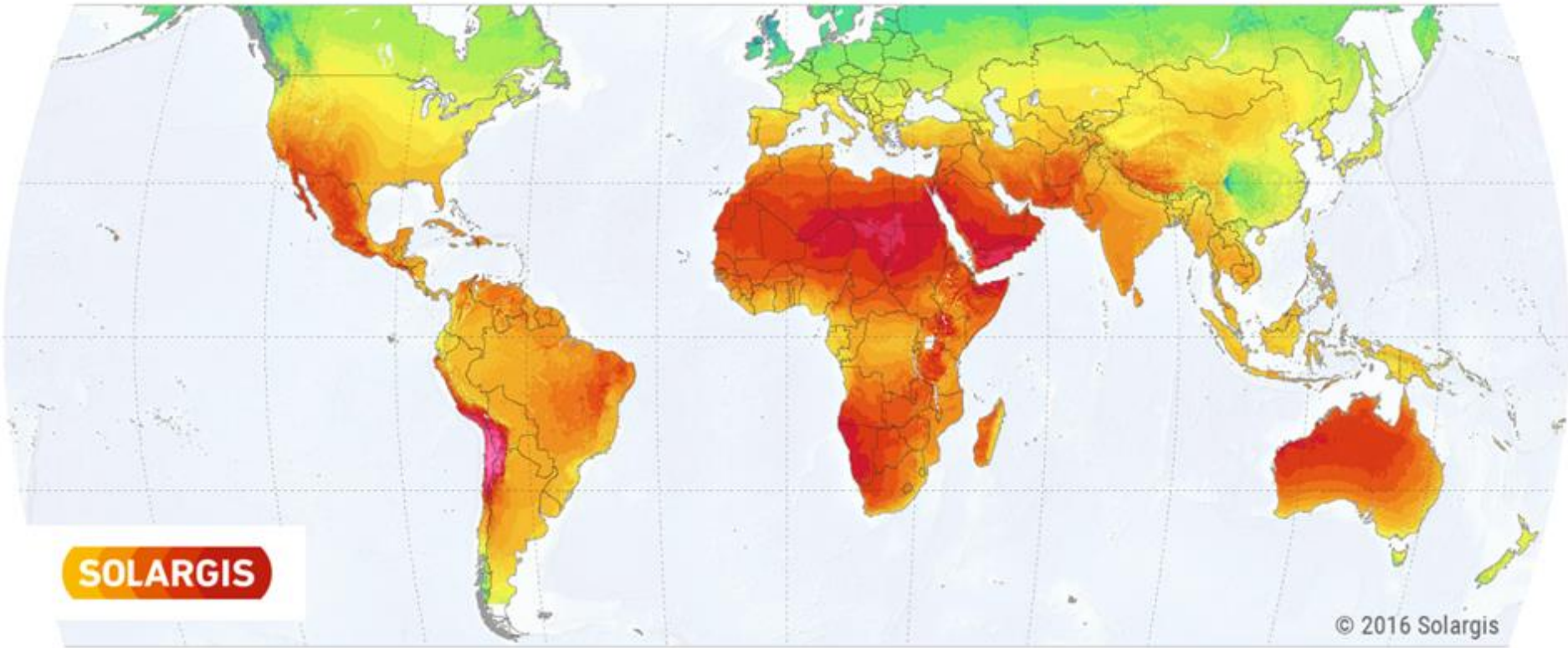
SunOyster Systems GmbH, Halstenbek

SunOyster Cooling – Socool feasibility study

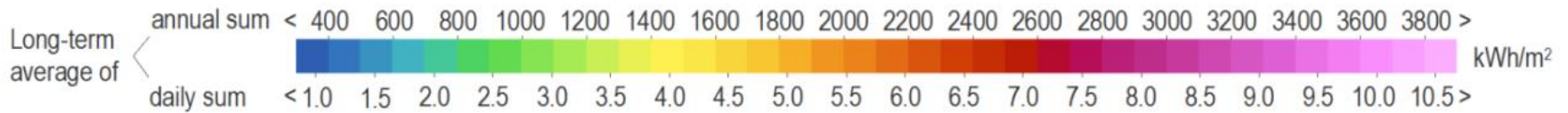
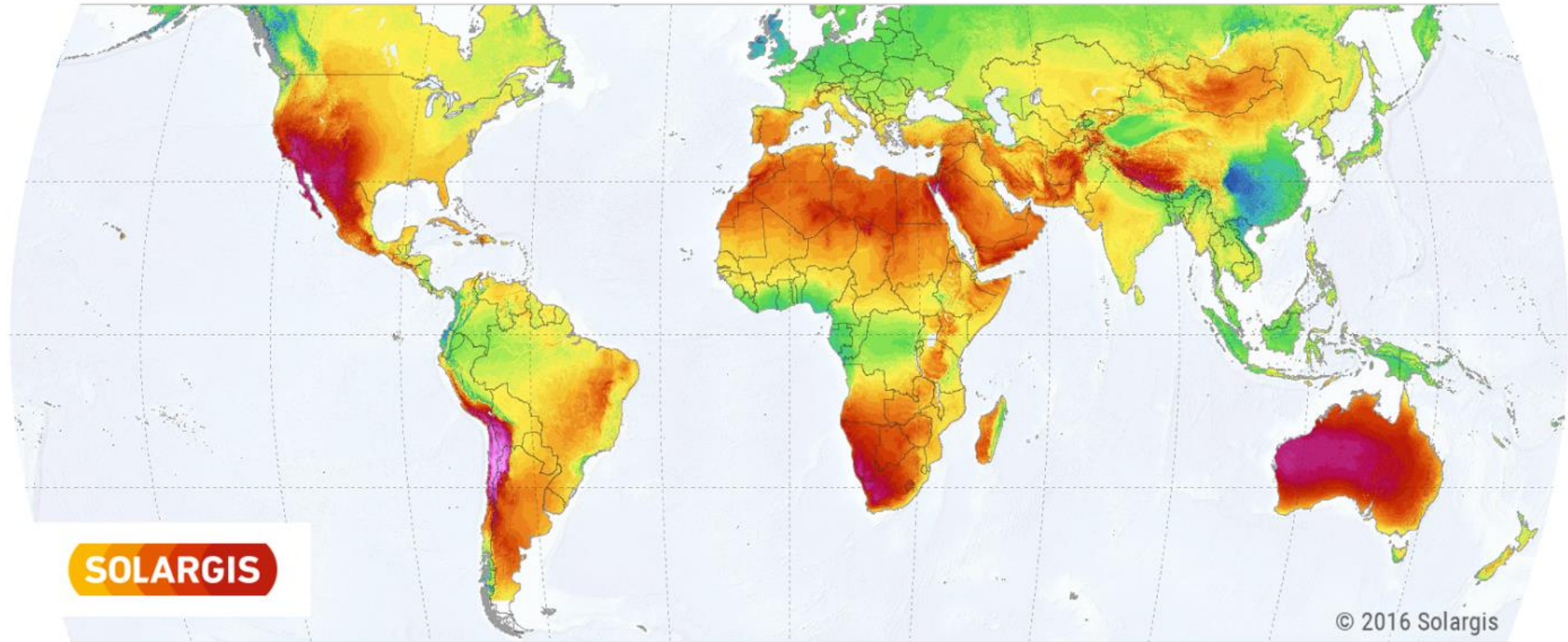
Dr. Carsten Corino, Messina, 19 April 2017



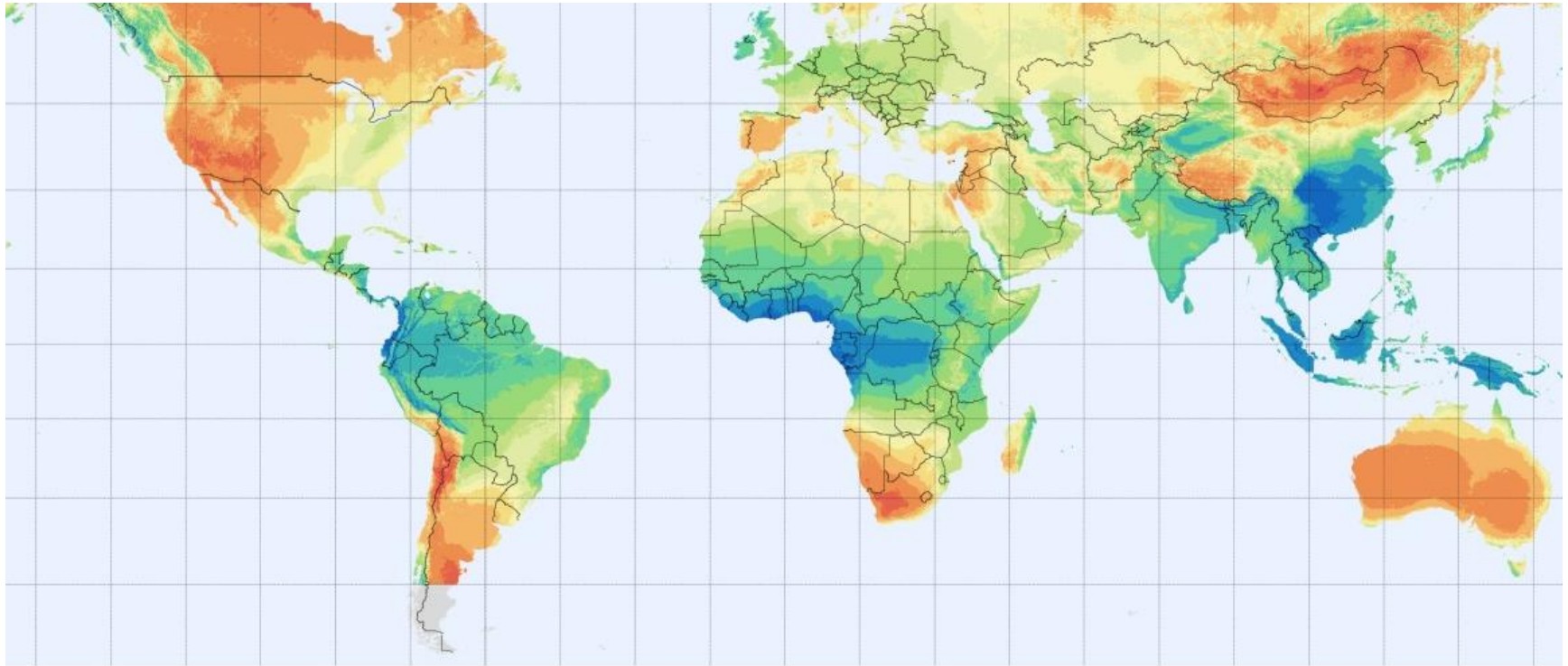
World map of Global Horizontal Irradiation GHI



World map of Direct Horizontal Irradiance DNI



World solar map comparing DNI and GHI



comparison



Global cooling degree days

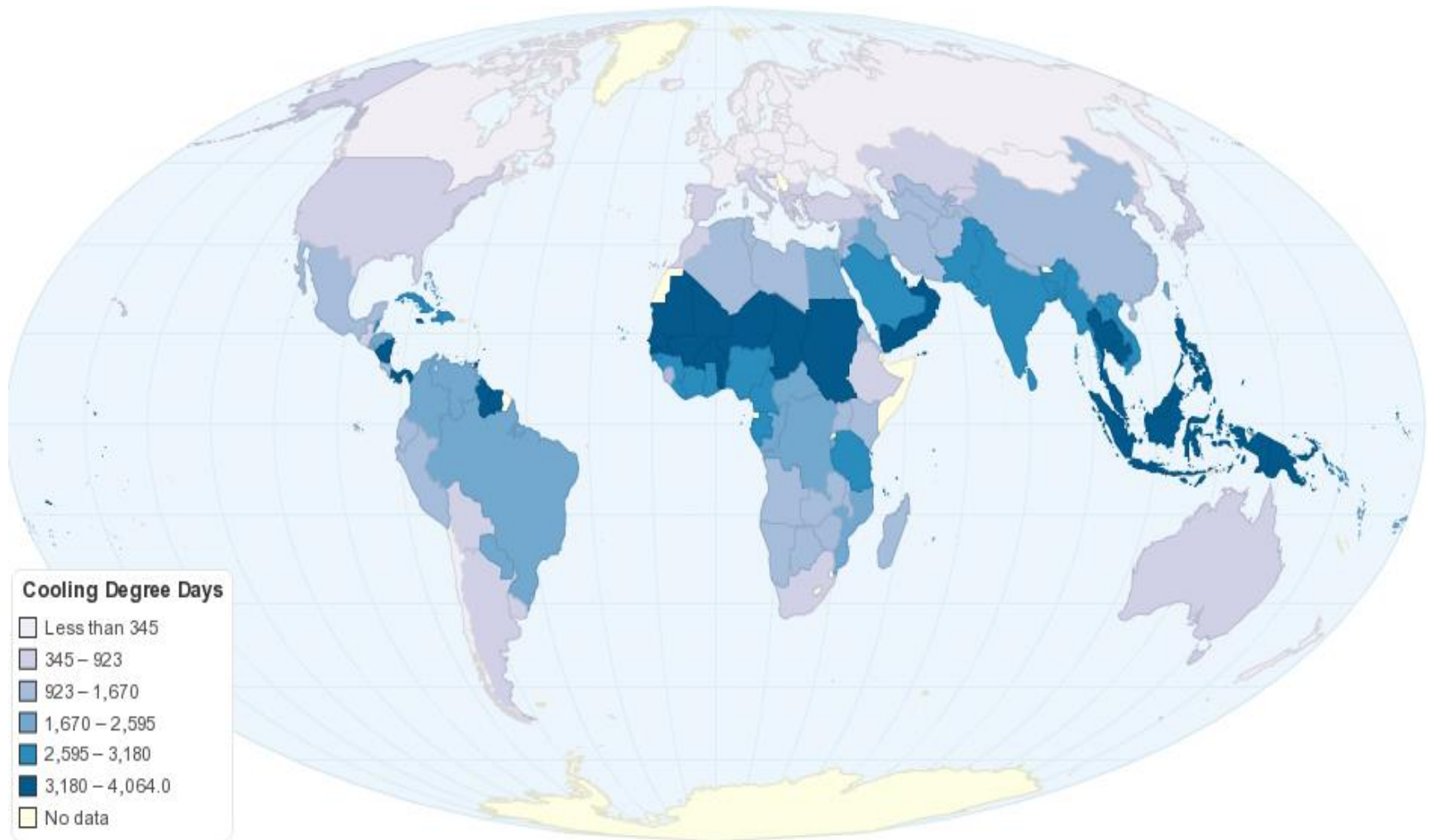


Fig. 7: World map of cooling degree days, temperature level for CDDs. Source: Cooling Degree Days, Climate Analysis Indicators Tool. World Resources Institute. <http://cait.wri.org/>

Global Electricity Prices

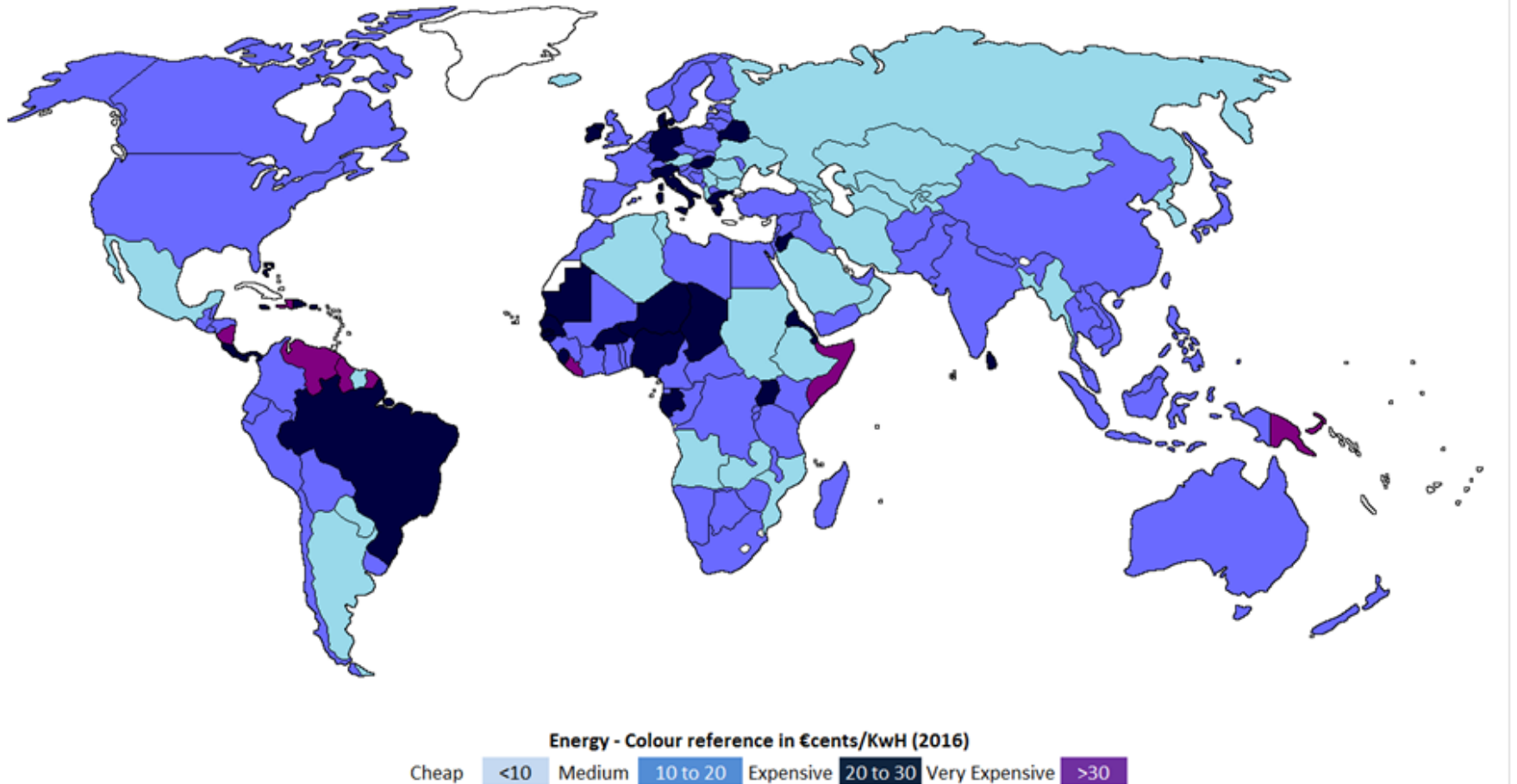
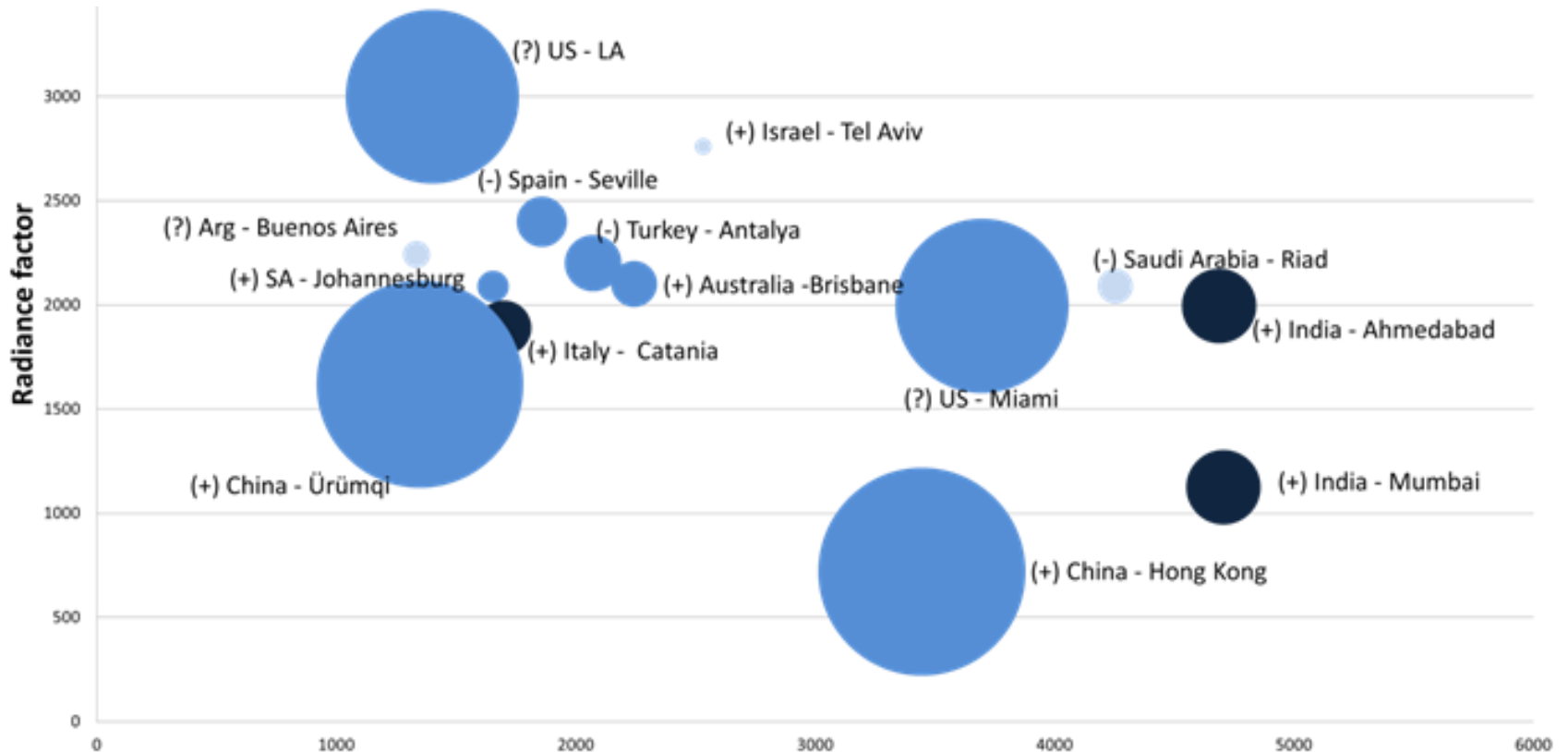








Fig. 12: Electricity prices in key countries (2016) – own graph based on doingbusiness.org/

Attractiveness of solar cooling markets



SunOyster cooling - SOcool packages (Catania)

SunOyster Package	P1 House with pool			P2 Office building		P3 Hotel	
No. of SunOysters				7x 		24x 	
Picture of chiller							
Criterion	P1 House with pool			P2 Office building		P3 Hotel	
	Conv.	PV el	SOcool	Conv. Ref.	SOcool	Conv. Ref.	SOcool
kWh el [Ct]	24.3	8.0	7.1	21.9	7.7	21.1	7.6
kWh heat Ct	17.2	17.2	5.4	14.1	10.3	12.6	2.9
kWh el or sol. cold Ct	16.6	12.8	15.8	9.9	10.2	5.9	4.9
kWh th fossil cold Ct	-			18.7		15.6	
IRR [%]	-	27.6	37.2	-	36.8	-	38.7
Proj payback [a]	-	4.9	5.1	-	5.5	-	5.3
Equity payb. [a]	-	1.5	1.5	-	1.6	-	1.6

SOcool Pool and Hotel shall tri-generate

Complete energy supply



Fig. 16: The SunOyster covers the complete energy demand of power, heat and cold

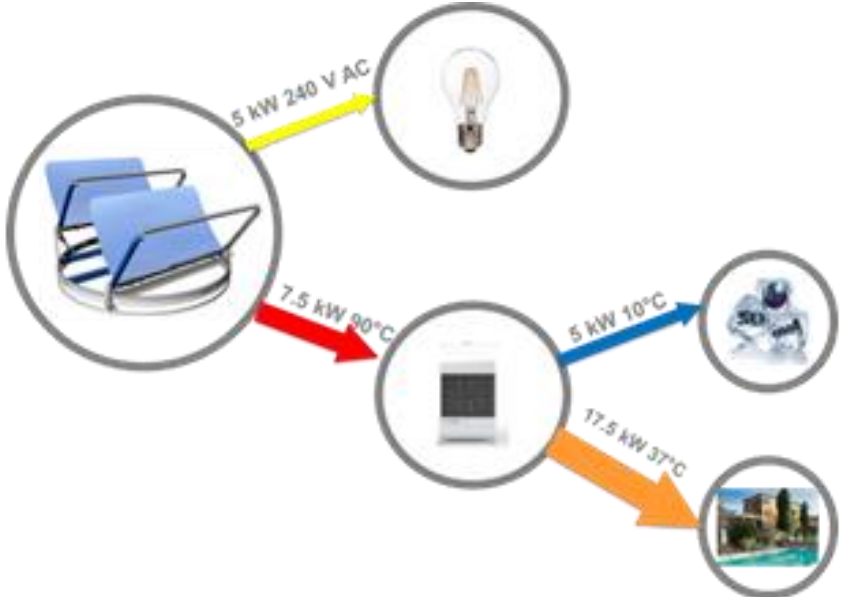


Fig. 17: Power of tri-generation in P1 SOcool Pool



Thank you for your attention!

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