

# AUSTRALIA

International Energy Agency-Photovoltaic Power Systems Programme

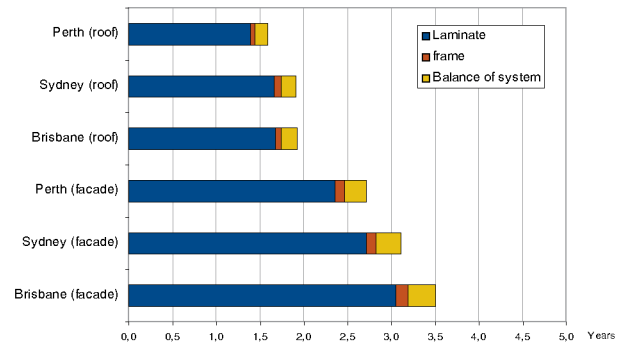
European Photovoltaic Technology Platform

European Photovoltaic Industry Association

Compared assessment of selected environmental indicators of photovoltaic electricity in OECD cities

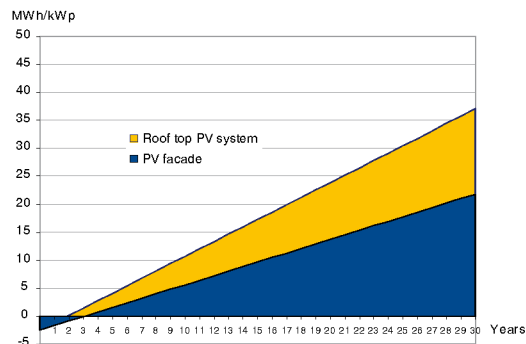


Location of studied cities



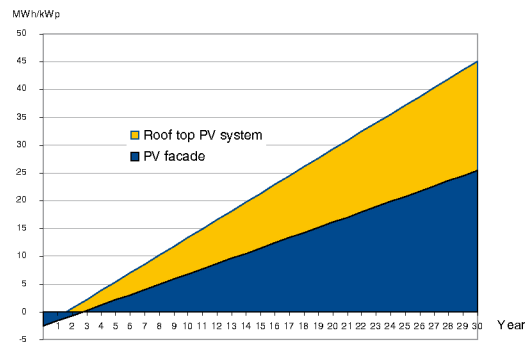
Energy Payback time

Sydney	Global horizontal irradiation 1614 kWh/m <sup>2</sup>	
	Roof-top	Façade
Annual output [kWh/kWp]	1 319	811
Energy Pay-Back Time [years]	1,91	3,11
Energy Return Factor [number of times]	14,7	8,6
Potential for CO <sub>2</sub> mitigation [tCO <sub>2</sub> /kWp]	33,285	20,459



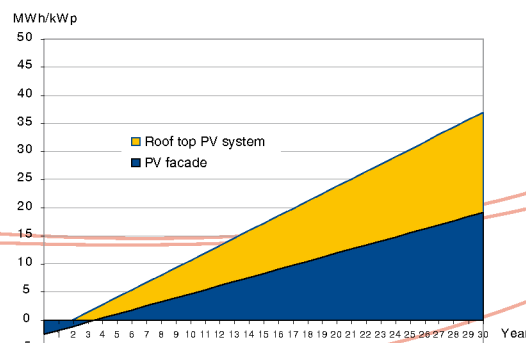
Cumulative net energy production over system lifetime for Sydney

Perth	Global horizontal irradiation 1941 kWh/m <sup>2</sup>	
	Roof-top	Façade
Annual output [kWh/kWp]	1 587	932
Energy Pay-Back Time [years]	1,59	2,71
Energy Return Factor [number of times]	17,9	10,1
Potential for CO <sub>2</sub> mitigation [tCO <sub>2</sub> /kWp]	40,028	23,503



Cumulative net energy production over system lifetime for Perth

Brisbane	Global horizontal irradiation 1686 kWh/m <sup>2</sup>	
	Roof-top	Façade
Annual output [kWh/kWp]	1 315	721
Energy Pay-Back Time [years]	1,92	3,50
Energy Return Factor [number of times]	14,6	7,6
Potential for CO <sub>2</sub> mitigation [tCO <sub>2</sub> /kWp]	33,174	18,182



Cumulative net energy production over system lifetime for Brisbane