Factors which should be analyzed: ①cost (money, time, manpower)

② availability (the intensity of limitation, land uses)

③harm (after the method took into practice, the harm it can cause)

④economic benefit

⑤capacity of producing energy.

Renewable power

1. Solar and wind power

①cost: (1)money

From: http://www.sciencedirect.com/science/article/pii/S0140988317301044

Name	Short	Change over Tax-30 case
Low Cost	LowCost	Capital costs for wind and solar power technologies decreased by 50%
High Cost	HiCost	Capital costs for wind and solar power technologies increased by 50%
High Resource	HiRes	Resource potentials in each resource quality grade doubled
Low Resource	LowRes	Resource potentials in each resource quality grade halved
Generous Integration	GenInt	Low challenges to VRE integration, e.g. due to more optimistic assumptions about flexibility provision, grid expansion and storage
Strict Integration	StrInt	High challenges to VRE integration, e.g. due to more pessimistic assumptions about flexibility provision, grid expansion and storage
All Optimistic	AllOpt	Combination of *Low Cost*, *High Resource* and *Generous Integration* assumptions

Name	Short	Change over Tax-30 case
All Pessimistic	AllPess	Combination of *High Cost*, *Low Resource* and *Strict Integration* assumptions
Very Low Cost	VLC	Levelized costs of wind/solar power reduced to ~ 20% of cheapest conventional technology (counterfactual)
Full Integration	FullInt	Neglect wind and solar integration challenges (counterfactual)

(the different policy influence the cost of money)

These cost assumptions were increased by 50% for the *High Cost* scenario, and decreased by 50% in the *Low Cost* scenario.

② availability: (1) suitable locations are confined to the lower latitude subtropical and tropical regions with limited cloudiness

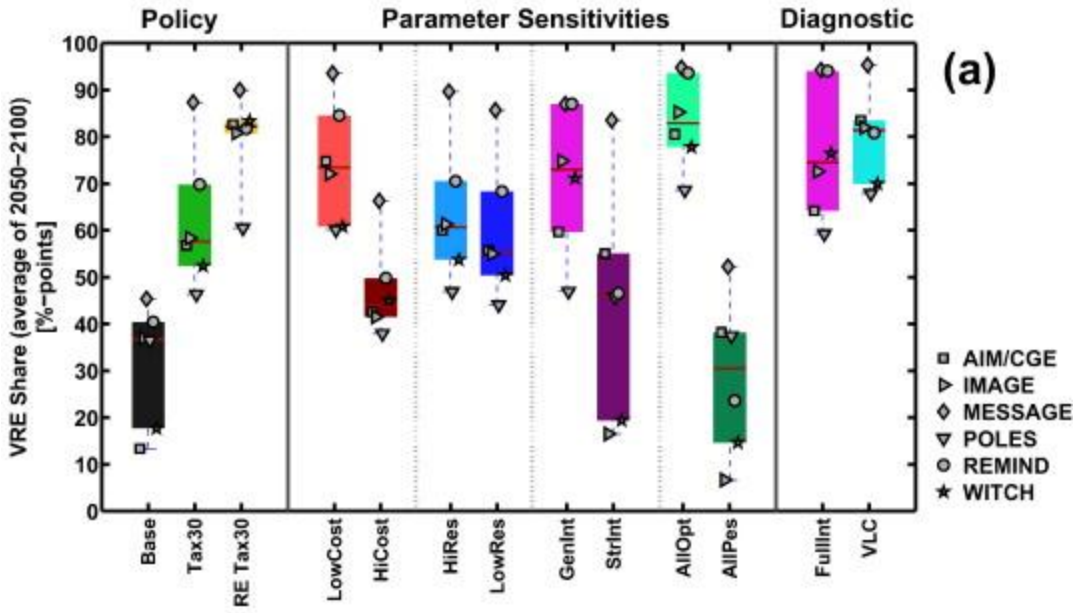
(2) PV potential in global average

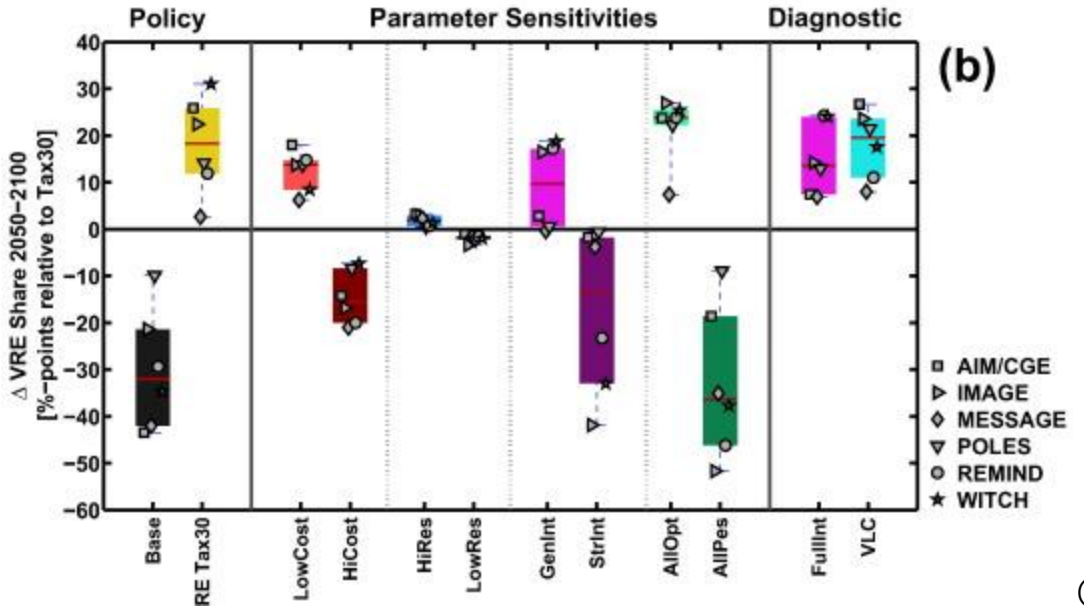
(3) policy regulation

(4) 5m^2 for 1 bottom of the charger

(5)148 m^2 ATS ,121 m^2 Sanlucar , 116 m^2 Sener and also usingsmall or micro heliostats 16 m^2 AORA Solar and Heliko-DLR , 7.5m^2, 4.3m^2HP-CSIRO

From: http://onlinelibrary.wiley.com/doi/10.1002/er.3684/epdf





③

Harm: (1)Efficient single-size-heliostat fields

(2)patent where the design of mixed fields' appears in the literature (a very exploratory approach, see . In this approach, fixed zones are considered (with a simple geometric pattern) to locate the

different heliostat sizes. However, the shapes and positions of these zones are dependent on the heliostats technologies and the project characteristics, and there appears the need for ad hoc analysis.

(3)The minimal number of heliostats required to build a feasible solution (field) will be affected by this constraint. The heliostats must be located within a given region e.g. to allow the access of a crane to the tower and a maximal radius (because of low efficiency after this distance. This region is fully described in Table II. The heliostats located in the field have to rotate freely avoiding collisions with other heliostats. Consequently, we have to include constraints forcing the heliostats not to overlap:

http://onlinelibrary.wiley.com/doi/10.1002/er.3684/epdf