

g z rn d	q tgu " v j g	y	hgcv w tgu	ı" cpf"	dgpg	vu "	q h "	uoctv "	' u c
and gr	d interaction	on; highlig	hting their	role in c	driving the	e trans	sition	toward	ls a
infrastr	ucture. By	harnessin	ig intellige	nce; sma	ırt solar p	anels	emp	ower st	ake
energy	resources	while con	tributing to	the reali	zation of	a clea	ner; s	smarter	; an

Challenges and future outlook: