



# Why planning energy solutions is critical to meeting other SDGs?

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**1** NO  
POVERTY**2** ZERO  
HUNGER**3** GOOD HEALTH  
AND WELL-BEING**4** QUALITY  
EDUCATION**5** GENDER  
EQUALITY**6** CLEAN WATER  
AND SANITATIONnature  
energy

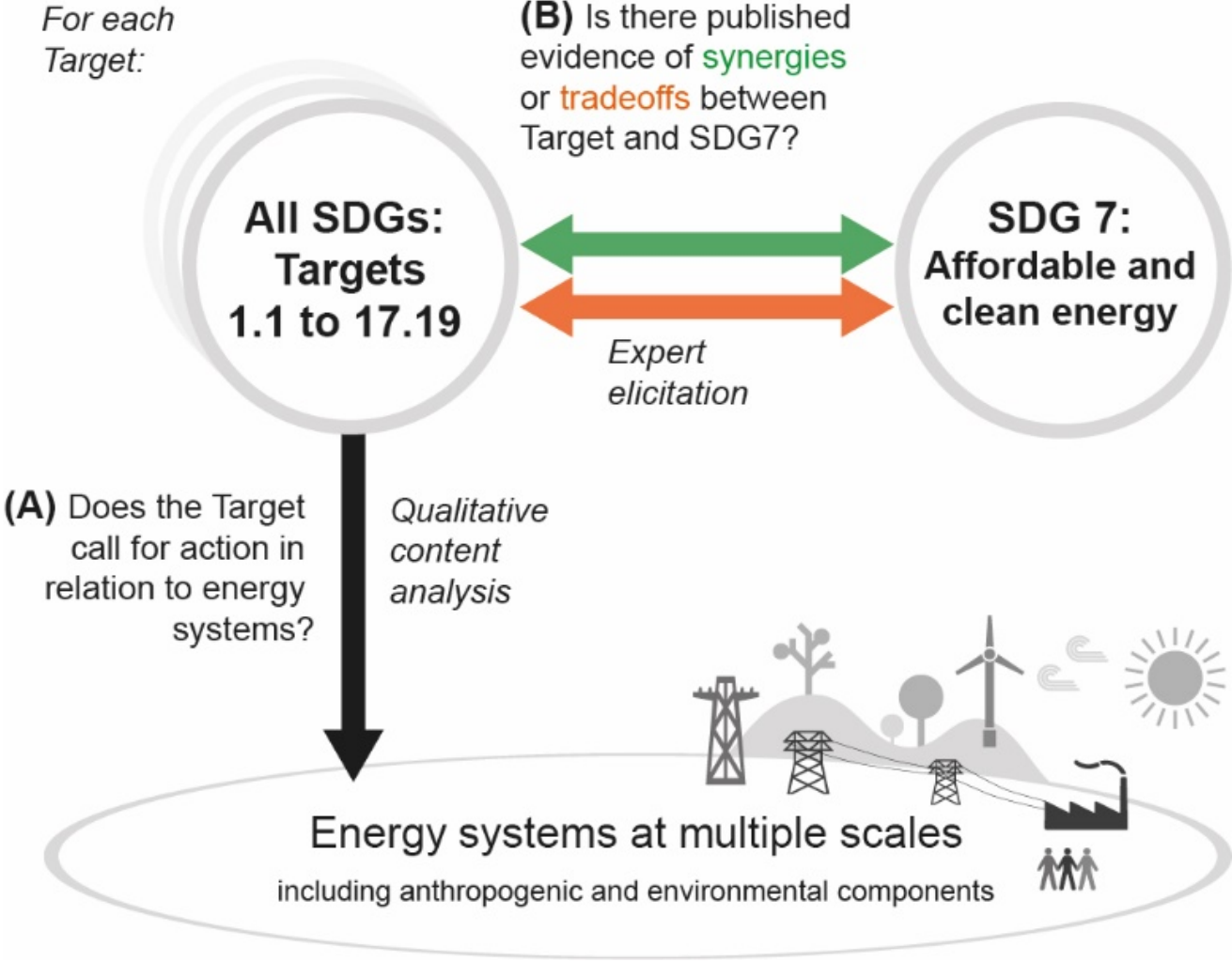
PERSPECTIVE

<https://doi.org/10.1038/s41560-017-0036-5>

# Mapping synergies and trade-offs between energy and the Sustainable Development Goals

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UCL Energy for Development Group



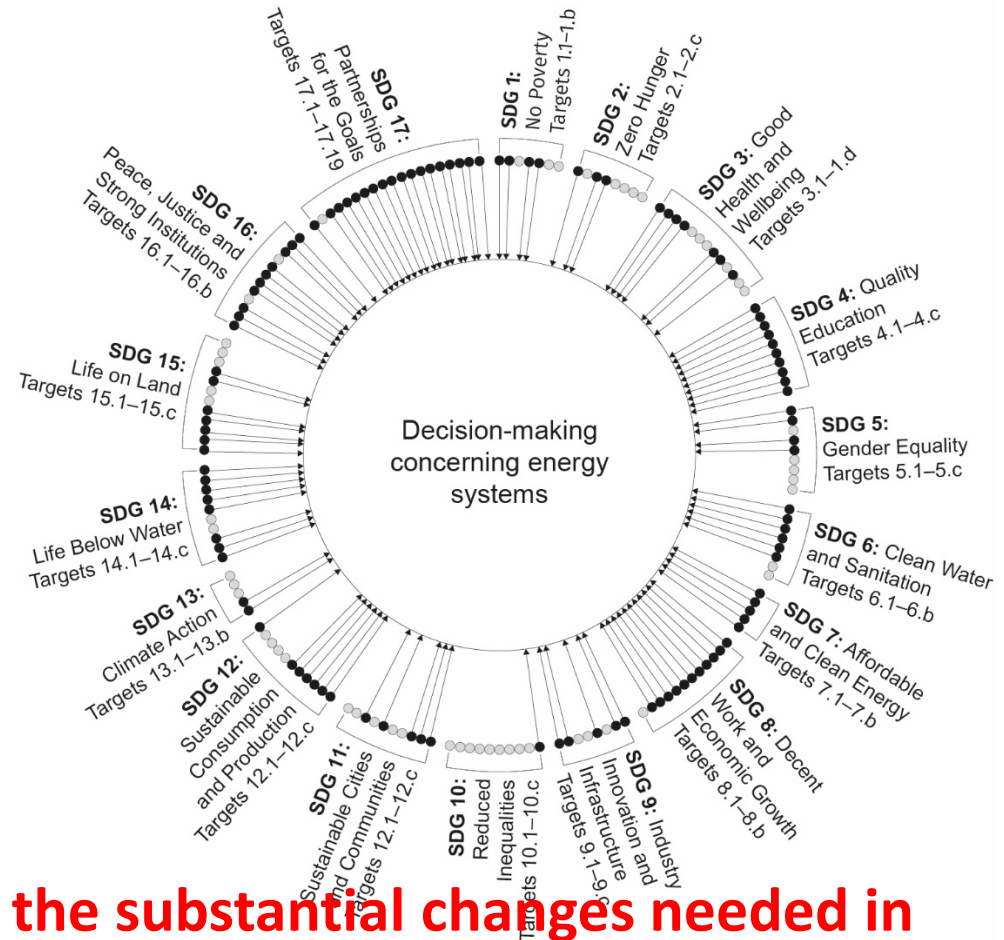
# A: CHANGES IN ENERGY SYSTEMS

## Does the target call for action in relation to energy systems?

**113 Targets (~65%)** require actions to be taken concerning energy systems.

E.g. to:

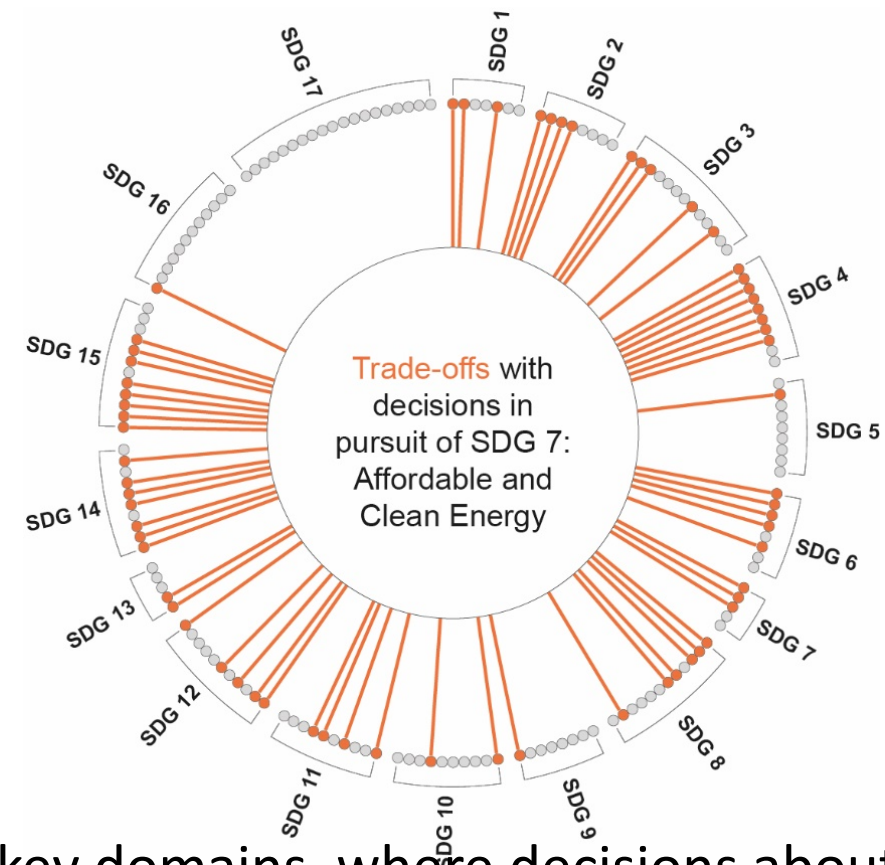
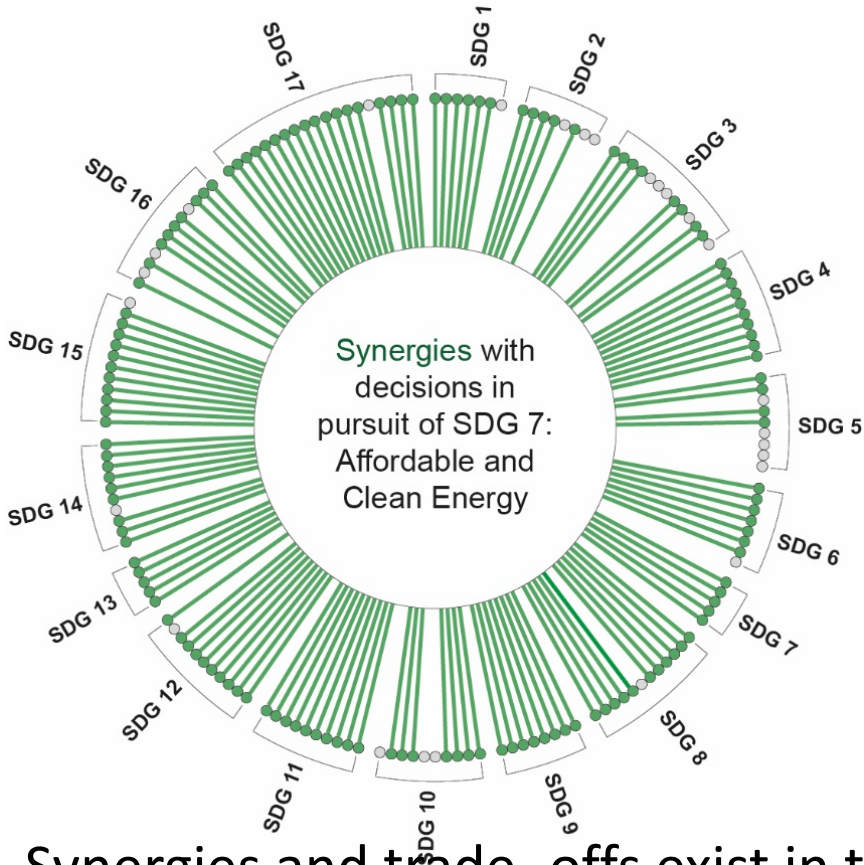
- address **climate change**
- reduce deaths from **pollution**
- Improve **justice**



**This gives a strong indication of the substantial changes needed in global energy systems in order to deliver the SDGs**

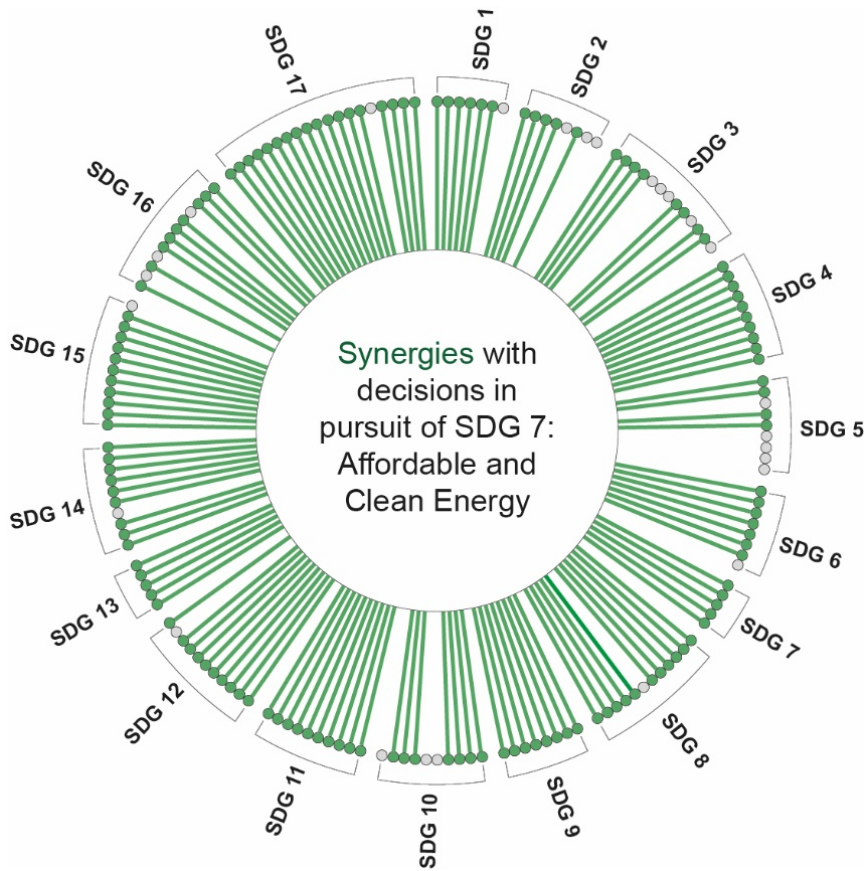


# B: SYNERGIES AND TRADE-OFFS WITH SDG7



Synergies and trade-offs exist in three key domains, where decisions about SDG7 affect humanity's ability to: realize aspirations of **greater welfare and well-being**; build **physical and social infrastructures** for sustainable development; and achieve sustainable management of the **natural environment**.

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## 143 SYNERGIES

<b>WELFARE AND WELLBEING</b>	Ending <b>poverty</b> & providing access to <b>healthcare, education, water and sanitation</b>
<b>INFRASTRUCTURES</b>	<b>Energy infrastructures</b> for: <ul style="list-style-type: none"><li>○ <b>Food &amp; Water</b> systems</li><li>○ <b>Medical</b> facilities</li><li>○ Sustainable <b>cities</b></li></ul>
<b>ENVIRONMENT</b>	<b>Renewable and efficient energy</b> will be needed to achieve environmental targets

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## 65 TRADE-OFFS

### WELFARE AND WELLBEING

Potential trade-offs with **local communities** from renewable energy projects (e.g. hydro, biomass)

### INFRASTRUCTURES

**Large infrastructure** projects can have impacts on achieving several other SDGs

### ENVIRONMENT

Energy services for all by 2030 can impact **climate change and local pollution**

