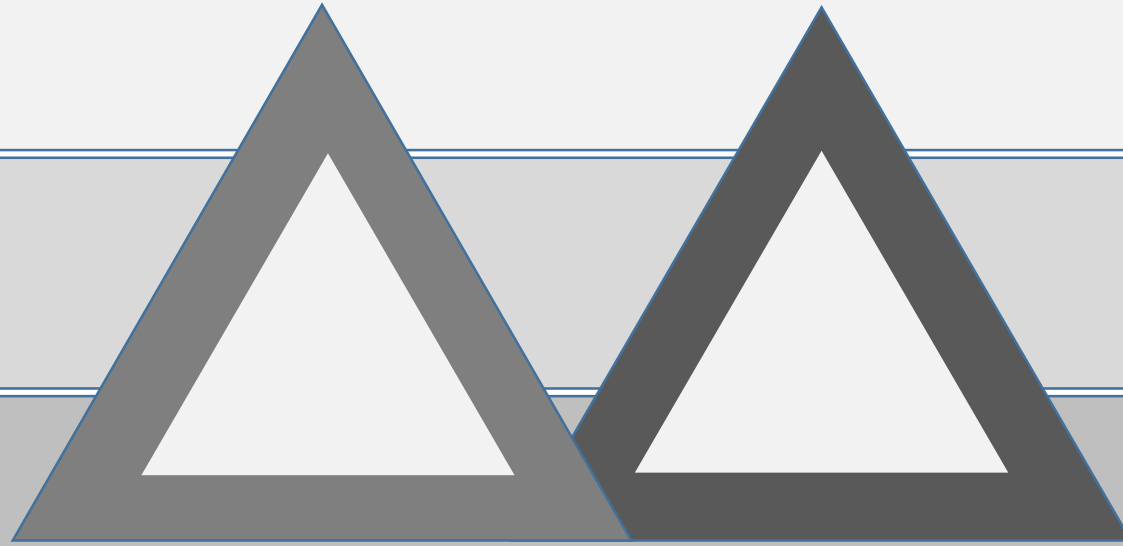




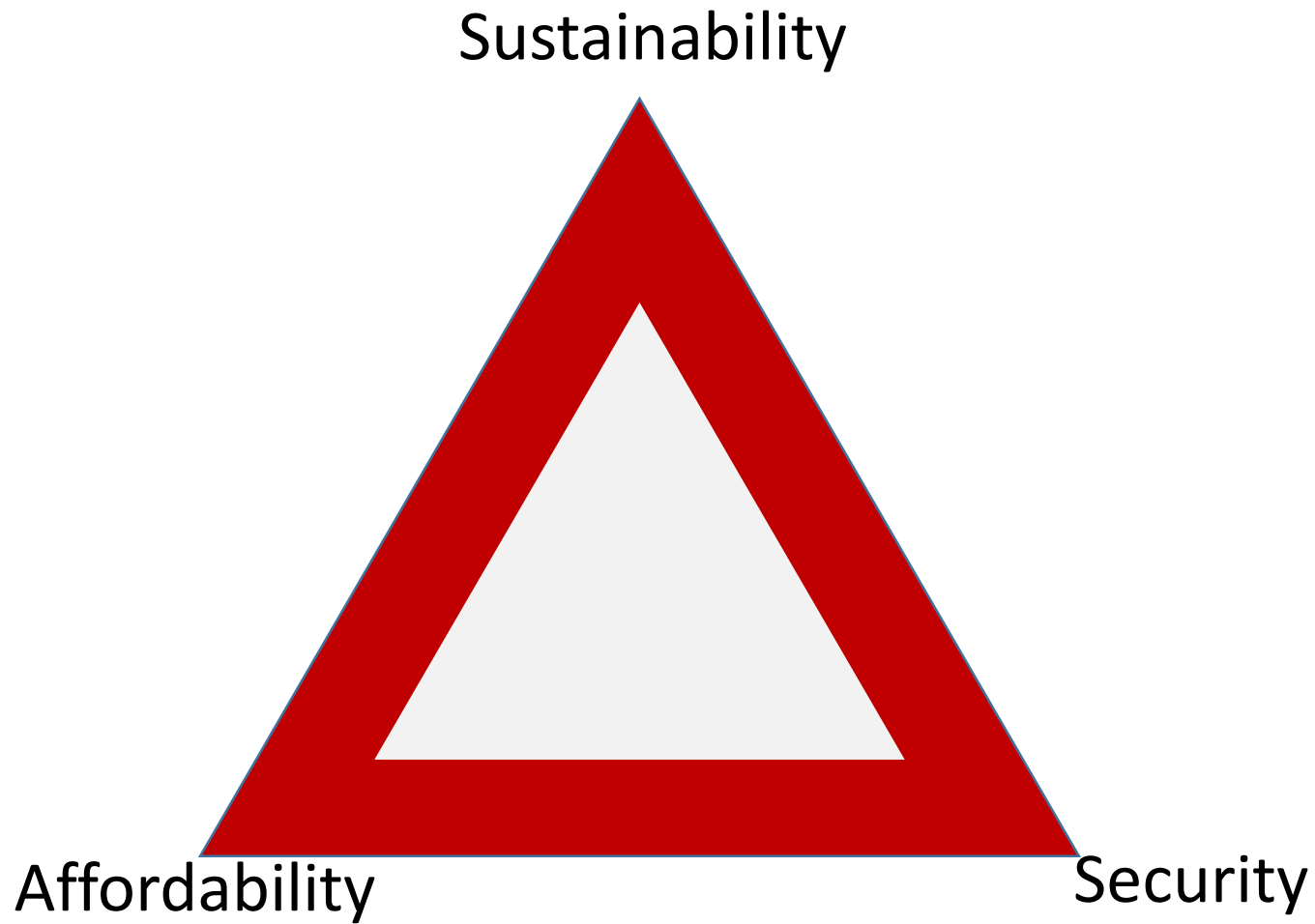
The Energy System challenge...



...supply and demand working together

Trilemma for the 21st century

The Frame of the Debate



a **Supply Side Trilemma?**

The Frame of the Debate

Low Carbon



Polluting

VS

Secure



Insecure

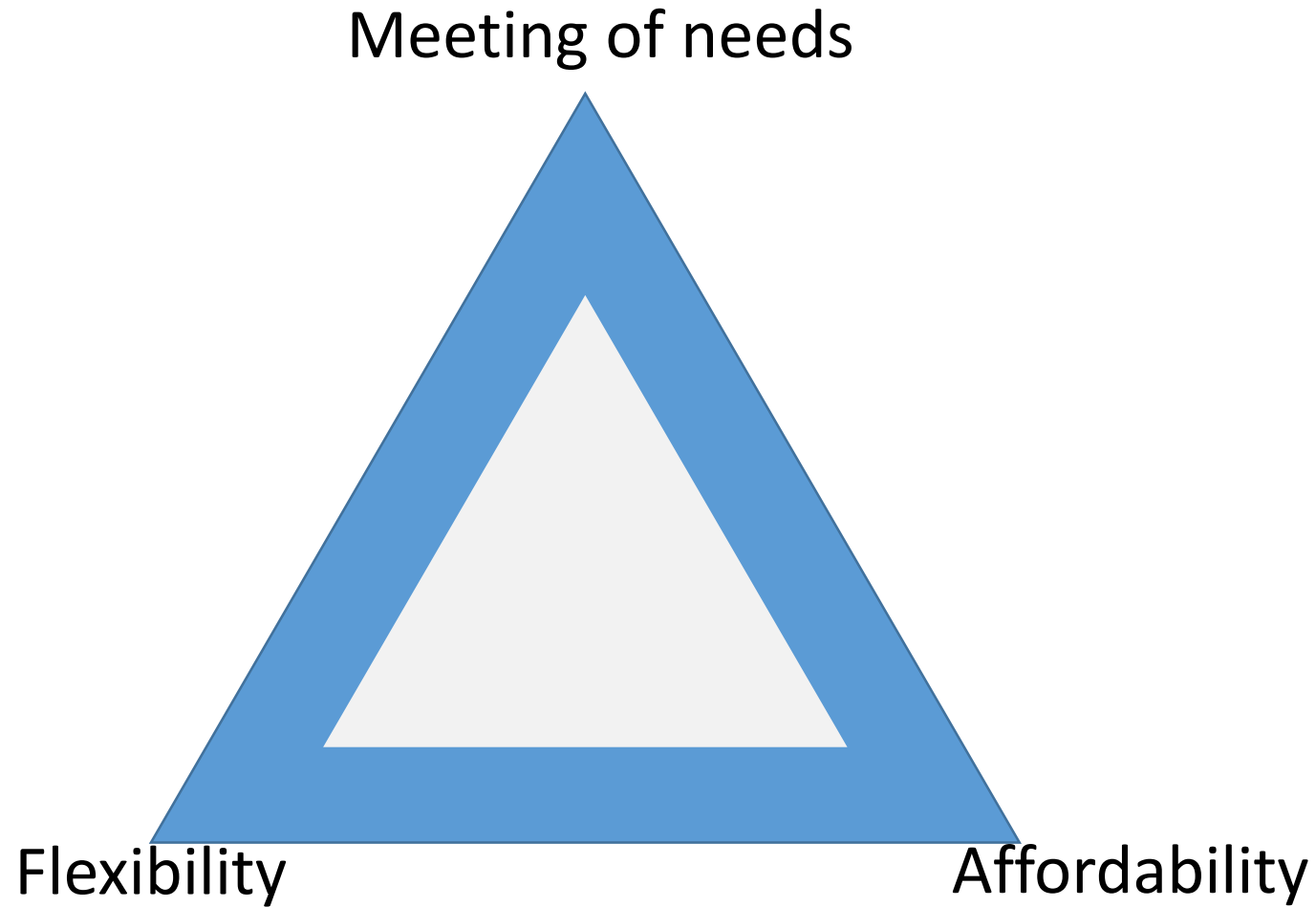
VS

Cheap



Expensive

The Frame of the Debate



A Demand Side Trilemma?

The Frame of the Debate



Flexibility



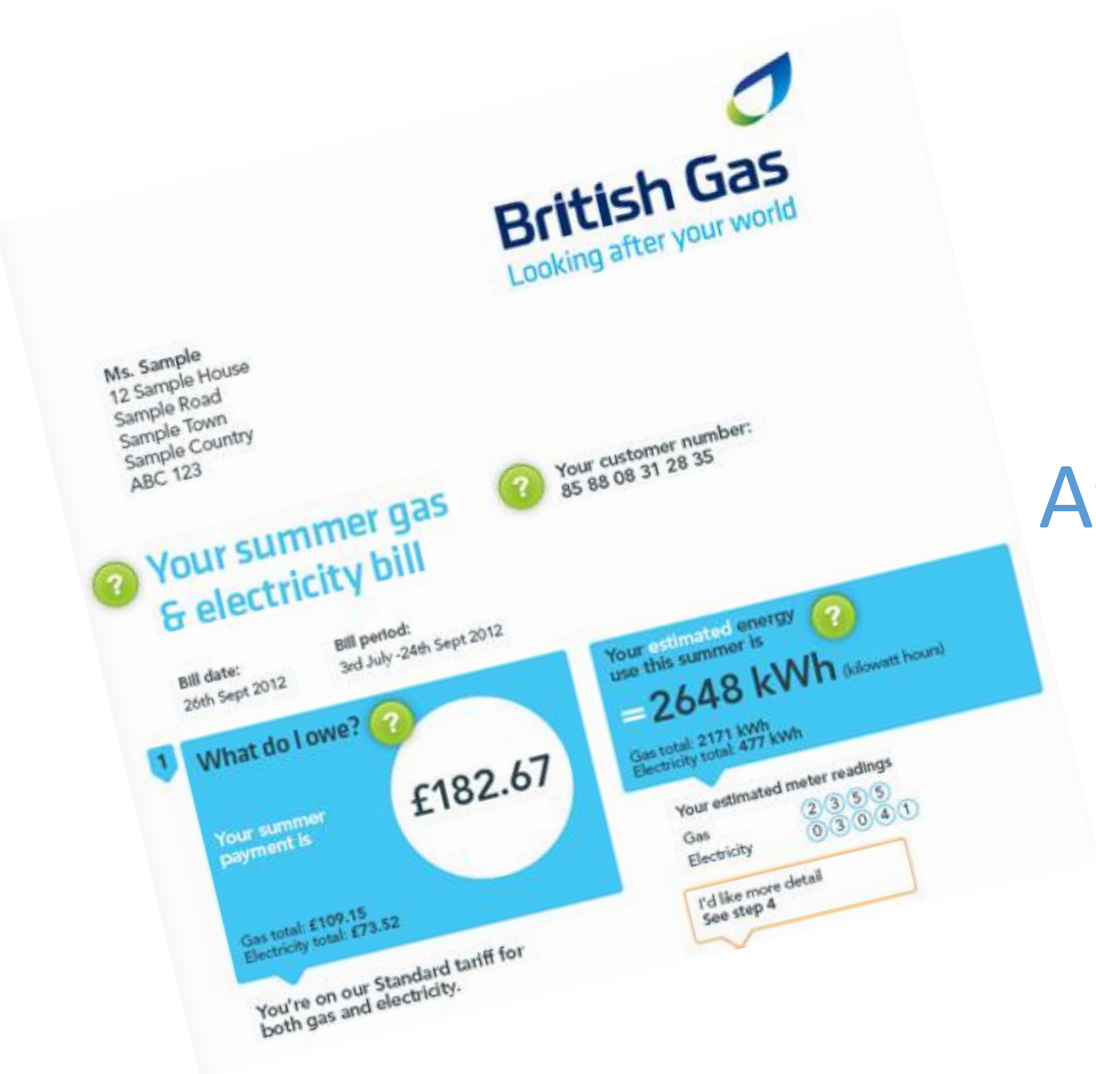
The Frame of the Debate



Meeting
of needs



The Frame of the Debate



Affordability



The Frame of the Debate

Greater
consumption



Reduced
consumption

VS

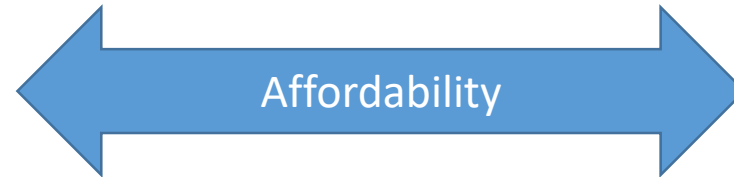
Customer lead



Supply lead

VS

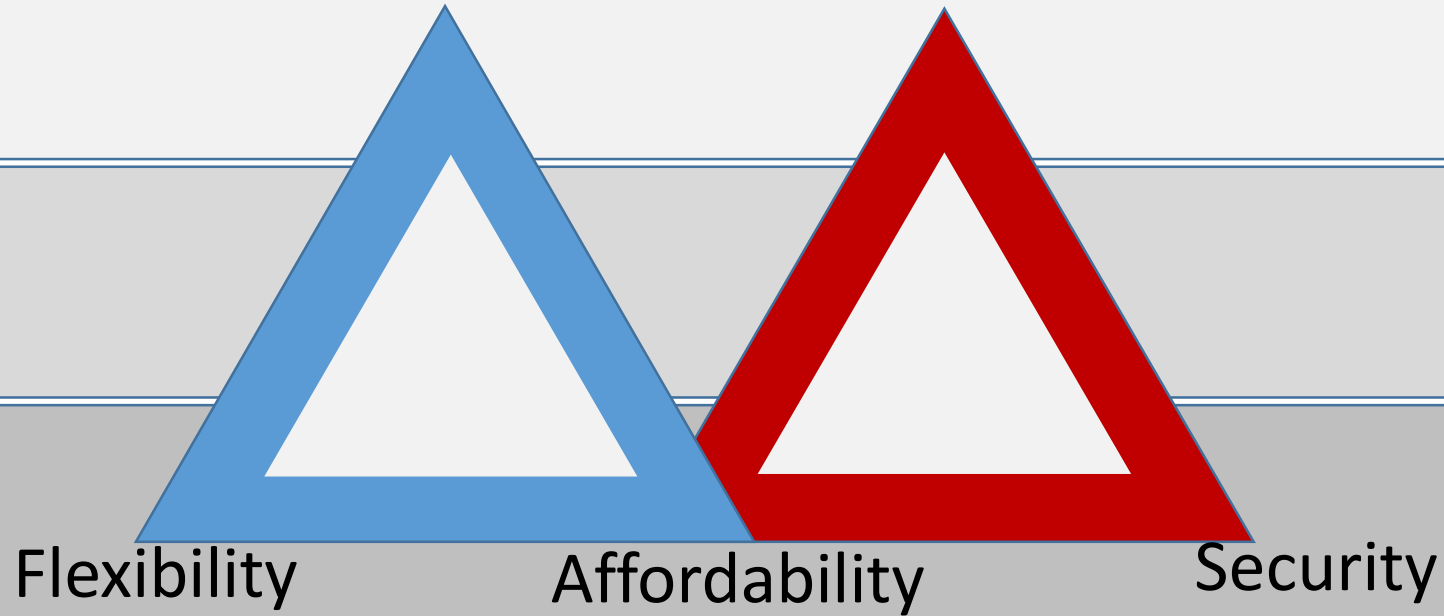
Cheap



Expensive

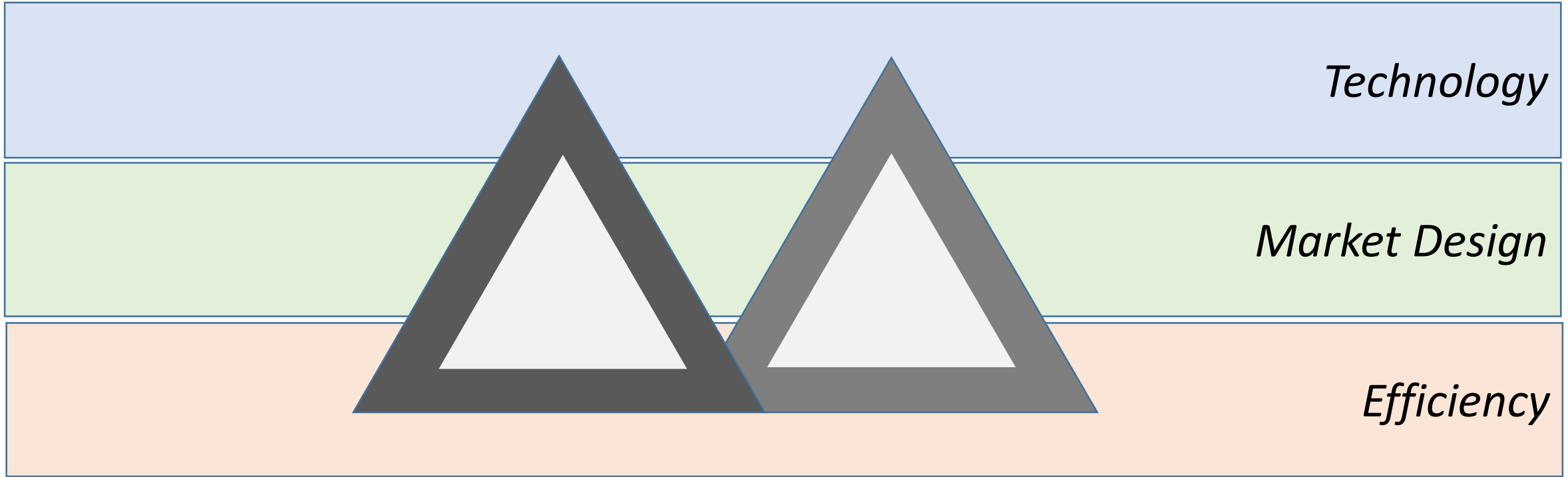
The new frame?

Meeting of needs Sustainability



A Dilemma of Trilemmas?

Solving the Trilemmas



Enablers!

Solving the Trilemmas

Technology



Solving the Trilemmas

Market design

FINANCIAL TIMES

UK faces second winter with dearth of spare power capacity



EXPRESS

Britain's energy crisis: Risk of winter blackouts soars to highest level in DECADE

the energyst

National Grid launched major demand-side response

UtilityWeek

National Grid to reply mostly on demand-side balancing by 2030

Solving the Trilemmas

Resource efficiency



Trilemma for the 21st Century – the full picture

