EDGE THINKING + CIRCULAR ECONOMY
Quick Learning Starters: Green Energy

(5–10 mins)

E – Ethical Edge:
“Is Green Energy Always Ethical?”

Starter Prompt
Show an image of wind turbines or solar panels.
Ask learners:
Who benefits from green energy?
Who might be affected negatively (miners, communities, workers)?
Can green energy still raise ethical concerns?
EDGE Focus
Ethical sustainability looks beyond carbon to people and fairness.

D – Design Edge:
“What Happens When Green Tech Breaks?”

Starter Prompt

Ask:

What happens to solar panels, batteries, or turbines at the end of their life?

Are they designed to be repaired or recycled?

Then:

Is green energy still green if it creates future waste?

EDGE Focus

Design determines whether green energy stays circular or becomes tomorrow’s problem.

G – Global Edge: “Who Owns the Energy?”

Starter Prompt

Ask:

Do all countries have equal access to green energy?

Which countries produce the technology?

Which depend on imports?

Then:

How does circular energy design support energy security for all?

EDGE Focus

Circular energy systems reduce global dependence and inequality.

E – Environmental Edge:
“Clean Energy, Dirty Extraction?”

Starter Prompt
Ask:
What materials do green technologies rely on?
What environmental damage can extraction cause?
Then:
Does recycling energy materials reduce environmental harm?
EDGE Focus
Environmental responsibility includes resource stewardship, not just emissions.

EDGE Combo: “What If Energy Had to Come Back?”

Starter Prompt

Give learners this scenario:

“Every green energy technology must be returned and reused at end of life.”

Ask:

How would companies design differently?

Would systems last longer?

Would we deploy energy more carefully?

EDGE Focus

Circular economy thinking reshapes energy design and responsibility.

Consumer Edge:
“Do We Value Energy Because We Can’t See It?”

Starter Prompt
Ask:
Why is energy often wasted?
Does invisibility reduce value?
Then:
Would behaviour change if energy use was more visible?
EDGE Focus
Human behaviour is a key part of circular energy systems.

Design for Circular Energy:
“One Battery, Many Lives”

Starter Prompt
Ask:
What happens to EV batteries after cars?
Could they store home or grid energy?
Then:
Is waste really the end — or just the next stage?
EDGE Focus
Designing for second life keeps energy materials valuable.

Global Justice Edge:
“Who Pays for the Transition?”

Starter Prompt
Ask:
Who pays for green infrastructure?
Who benefits first?
Who risks being left behind?
Then:
How does a circular economy support a just energy transition?
EDGE Focus
Green energy must support social justice and fairness.

Environmental Reality Check:
“Energy Is Circular — Are We?”

Environmental Reality Check: “Energy Is Circular — Are We?”
Starter Prompt
Ask:
Sun, wind, and water are naturally renewable — so where does the system break?
Then:
Is the problem energy supply or human systems?
EDGE Focus
Nature is circular — humans must learn to match it.

Final Provocation: “Is Green Energy About Technology or Stewardship?”

Starter Prompt

Statement on the board:

“Green energy works best when we use less, not just generate more.”

Learners respond:

Agree / Disagree

One EDGE-based reason

EDGE Focus

Positions green energy as behavioural, ethical, and systemic, not just technical.