

Korrekturhinweise

On the grid

0	1	2	3	4	5	6
B	C	B	A	D	A	C

Begründungen

0

The speaker says: "But the grid is outdated. The problem is that the kind of electricity that's now flowing through the grid is changing [...] energy experts say the grid is not ready for it." The network for electricity supply is therefore ineffective as it can't cope with new types of power.

1

The speaker says: "That reflects what an amazing machine this is, spread out geographically, always having to balance demand and supply because electricity is not stored. [...]" The speaker says: "Grid operators constantly match what power plants are producing with what people and their TVs, microwaves and air conditioners need. It's the world's biggest balancing act." The grid must therefore deliver as much electric current as users consume.

2

The speaker says: "Grid operators constantly match what power plants are producing with what people and their TVs, microwaves and air conditioners need. It's the world's biggest balancing act. And that's doable largely because big power plants run almost constantly and produce a predictable amount of electricity." Therefore, the grid works because conventional power stations can generate electricity steadily.

3

The speaker says: "That's the conclusion of a study that Moniz's group at MIT is issuing today. It's all about how the grid must change to handle the fickle flow of electrons from renewable energy. Steve Berberich runs the California Independent System Operator. That's the California grid. They're trying to sort out how to handle this on-again/off-again source of electricity." The electricity network must therefore be improved to deal with fluctuating power supply.

4

The speaker says: "In California, most of that backup power comes from plants that burn natural gas; they can switch on and off in a matter of minutes." Gas-fired power stations are therefore helpful as they can react to needs quickly.

5

The speaker says: "Coal and nuclear plants – thermal plants, as MIT's Moniz calls them – are not a good option for backup. It's costly to start and stop them on short notice." The second speaker says: "Another set of costs is the additional operating costs and maintenance costs, wear and tear, on some of these thermal plants that we may be asking to go up and down a lot more than they were planned for." Using thermal plants to supply grid support is therefore uneconomical.

6

The speaker says: "I think there's a lot of misconceptions about backup power. The reality is that all power plants are backed up by all other power plants." Therefore, all power stations keep the grid going by supporting each other.