

Are We Entering A Golden Era for Decentralised Energy?

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- 1. About Delta**
- 2. Future DE Markets**
- 3. Beneficiaries of Growth**
- 4. Implications for Utilities**
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Introducing Delta

Specialist decentralised energy (DE) & low carbon consultancy

- Independent and impartial

Small but specialised

- Founded in 2004
- UK and Belgium offices, associate in Japan
- Excellent international networks

Deep DE & low carbon knowledge

- Markets and economics
- Policy and regulation
- Commercial strategies
- Technologies

Clients and Services

Client Groups (& sample clients)

1. Energy Sector

Gaz de France, RWE, Osaka Gas, BP, Iberdrola, EDF, E.ON UK, BC Hydro, Chevron, SolCalEd

2. Finance Sector

Morgan Stanley, ITI Energy, Credit Suisse, Modal Capital, Numis Securities, Challenger

3. Equipment Manufacturers & Tech. Developers

Toshiba, Viessmann, Ceres Power, GE, United Technologies Corporation, Yanmar

4. Policy Sector

International Energy Agency, Natural Resources Canada, European Commission

Services

- **Consulting**
 - Due diligence
 - Market assessment, projections and strategies
 - Policy and regulatory analysis
 - Technology assessment
 - Fore-sighting
- **Studies and Services**
 - Micro-CHP Service
 - Electricity Storage
 - CHP Policy & Markets Service
 - Micro-Wind
 - Utility low carbon strategies
- **Summit & Briefings**
 - Micro-CHP
 - Mid-scale DE
 - Electricity Storage

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1. About Delta

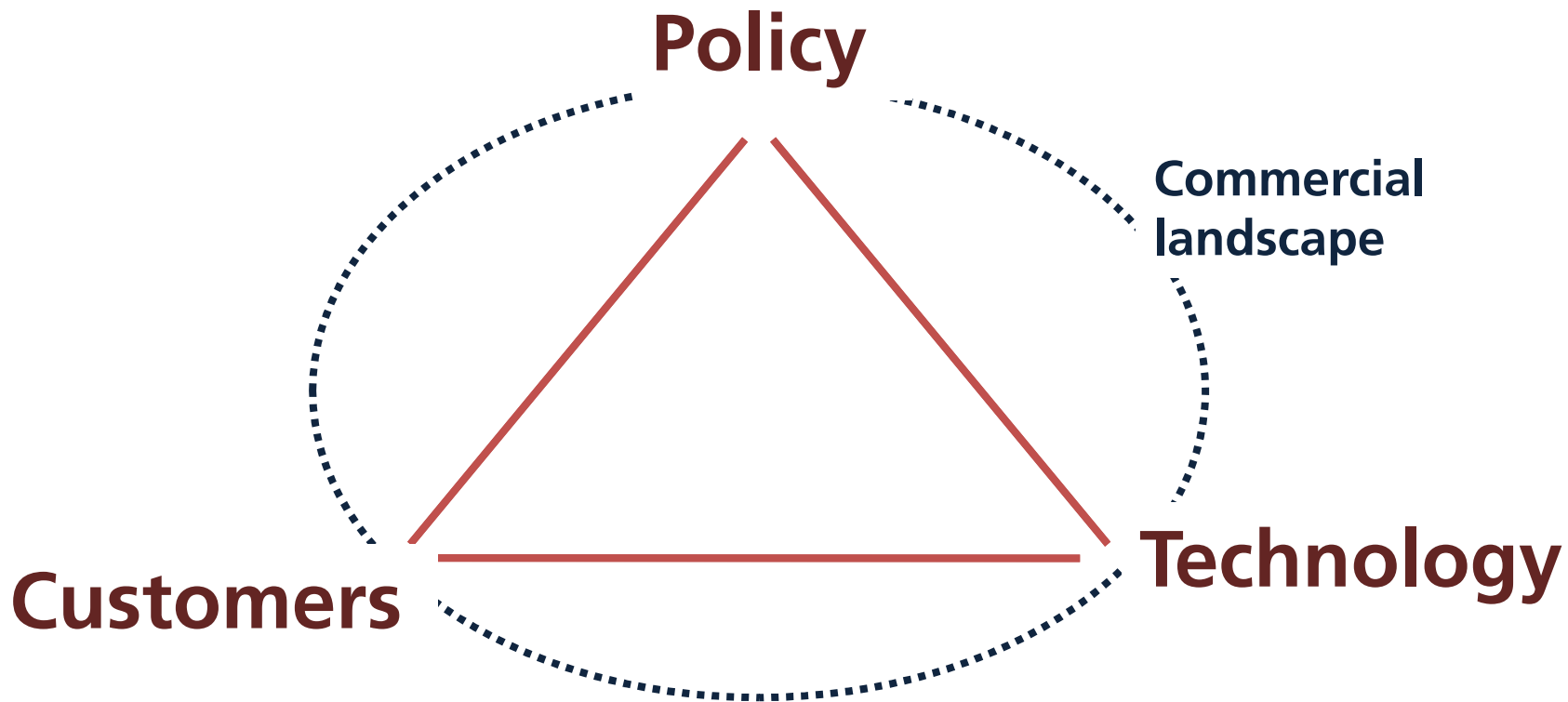
2. Future DE Markets

3. Beneficiaries of Growth

4. Implications for Utilities

5. Are We Entering a Golden Era for DE?

Market Influencers



Policy



9 October 2008 - **An upper limit on the growth in electricity consumption is being set in Finland** for the first time; consumption will be allowed to grow by only around 10 per cent by the year 2020.

The cabinet reached agreement late Wednesday on a new climate and energy strategy. Part of the plan is a ceiling of 98 terawatt hours on electricity consumption by 2020. Most growth in consumption up until then will be seen in the industrial sector. The strategy aims at energy savings and lower consumption by Finnish households.

South....

Strong support for CHP in Spain

- Up to €126 / MW “feed-in” tariff

PV “boom”

- > 1 GW of new installations in 2008

Solar on new build

- Legislation pushes integration of solar energy on new buildings

Germany – a feast of support packages

New CHP Law (2008)

- 1.5c – 5c / kWh “bonus price”, Ecotax exemption, subsidies

Biogas and biomass

- Up to 22c / kWh feed-in price

PV heaven!

Positive treatment of CHP under EU Emissions Trading Scheme

Requirement for CHP or renewables in new buildings

West.....

UK Microgeneration Focus

Government Microgeneration Strategy

Feed-in Tariff Within a Year

- “The Secretary of State shall make regulations.... for the purpose of introducing a renewable energy tariff for a specified fixed period to specified producers of renewable energy.”
- “.....may extend to introducing a tariff for a specified fixed period for electricity and heat generated from specified non-renewable combined heat and power systems..”

Technology – New....



Technology – and “old”.....



Customers – British Telecom

British Telecom's four step carbon diet....

1. Reduce our footprint

0.7% of all electricity consumed in the UK is used by BT and we emitted 0.64 million tonnes of CO₂ in 2007 – equivalent to 400,000 return flights from London to New York.

We have already reduced our CO₂ emissions by 60% since 1996. Our target is now an 80% reduction by 2016. We're doing this by improving energy efficiency and using green electricity.

Customers - Google



Renewable Energy Cheaper Than Coal

[Reducing our Carbon Footprint](#)

[Advancing Green Technology](#)

[Advocating Public Policy](#)

[Helping our Users](#)

[Commitment to Sustainable Computing](#)

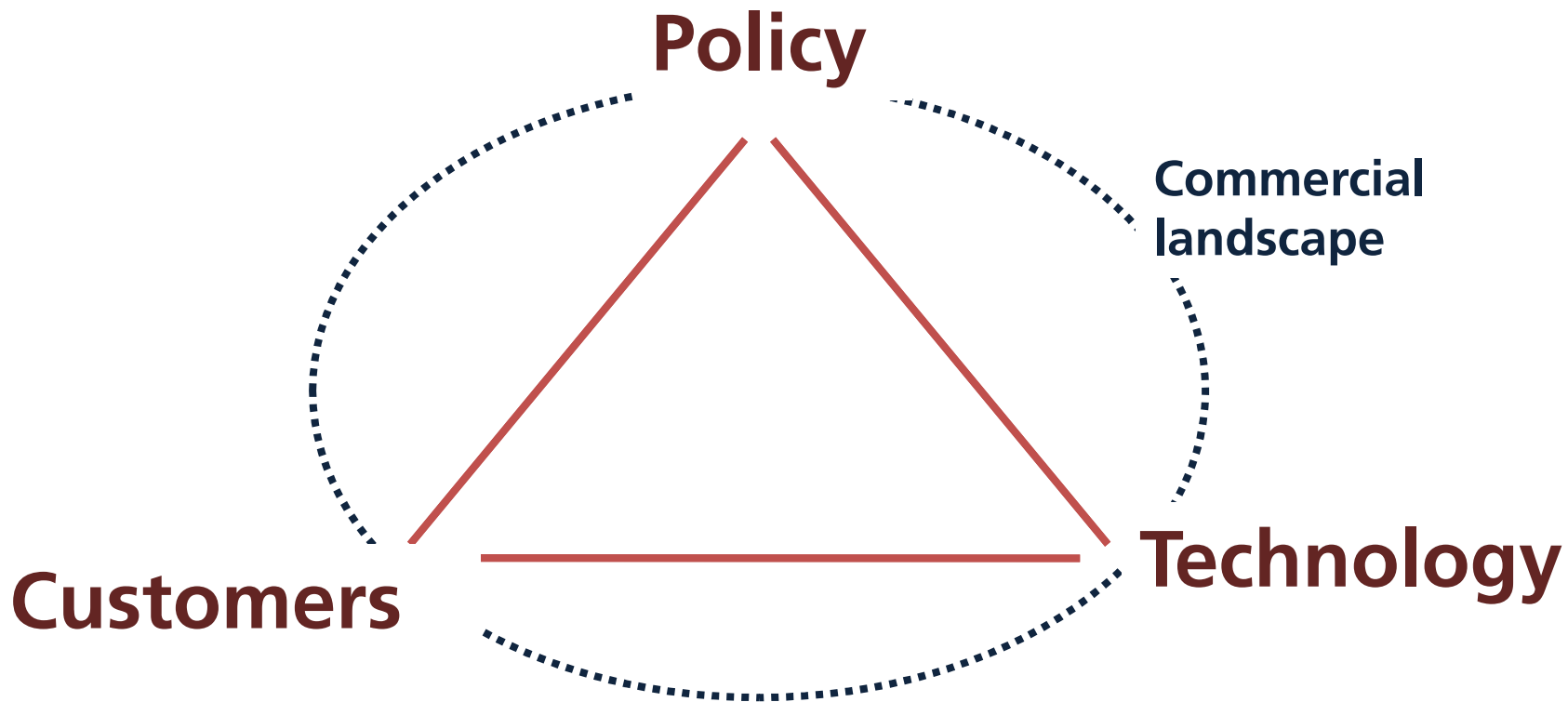
Customers - Ahold



By 2020

1. Reduce energy consumption by 20% per square metre
2. 20% of energy from renewables

Market Influencers



How and Where Will DE Grow?

Market focussed support

Examples

Belgium certificate schemes

UK Renewables Obligation

Technology-neutral building regulations

Italian White Certificates

Technology focussed support

Examples

German feed-in tariffs

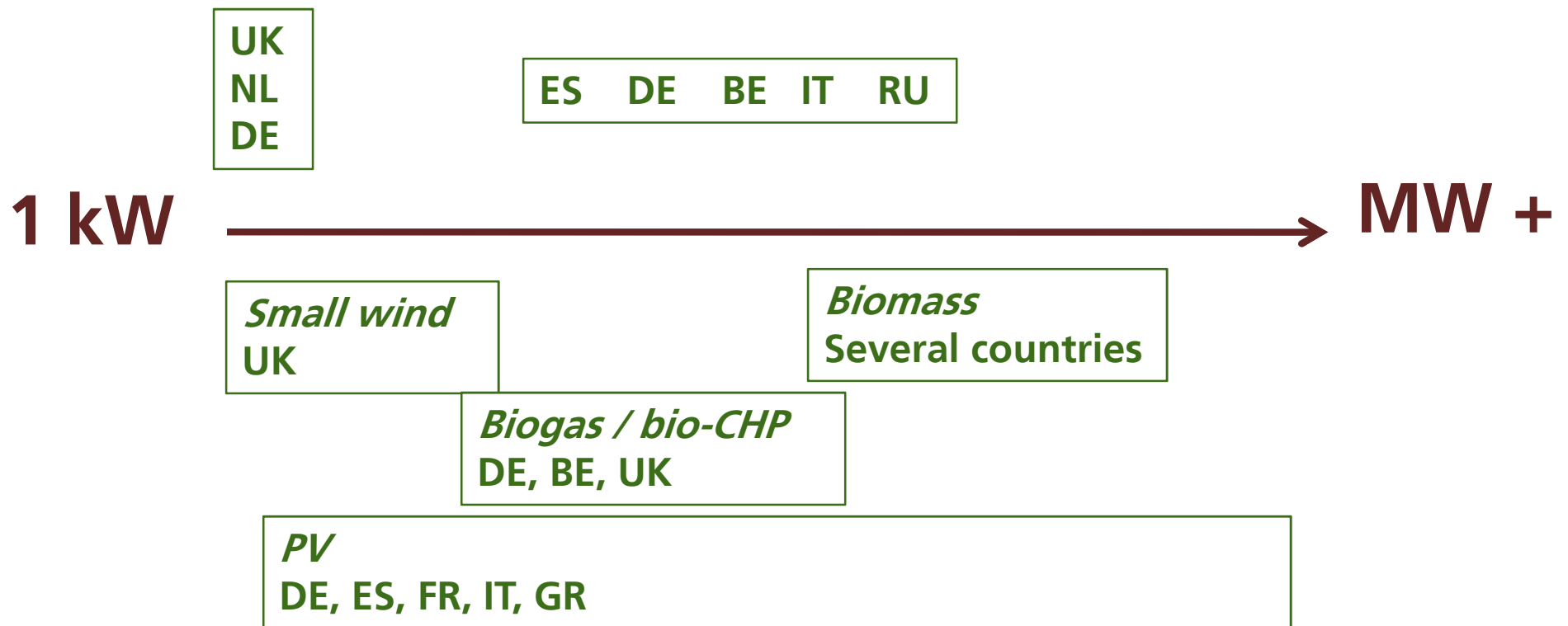
(Spanish) solar subsidies

Germany fuel cells

Structural reforms

DE Growth Highlights

Fossil-CHP



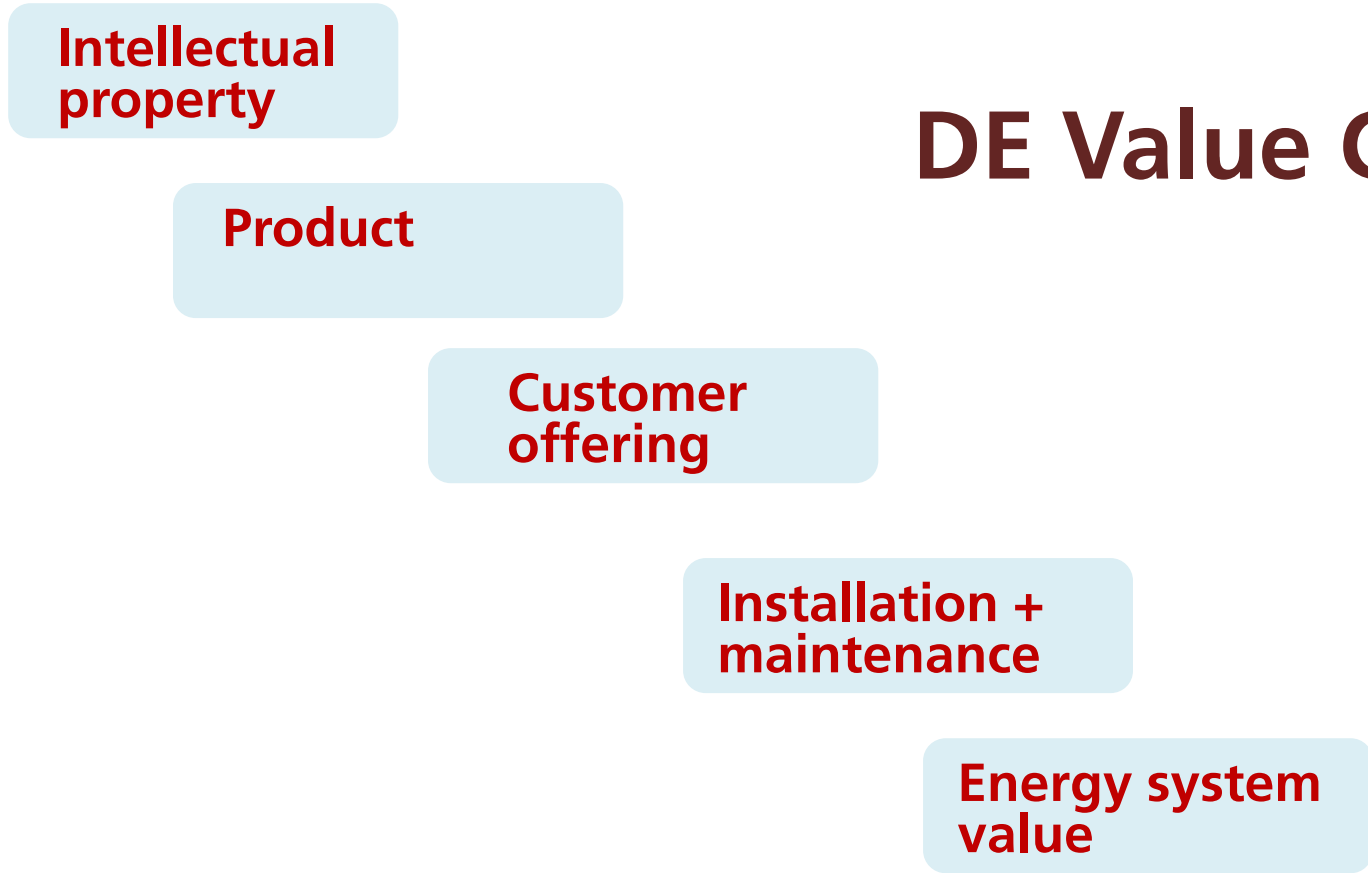
Renewables

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Show Me the Money!

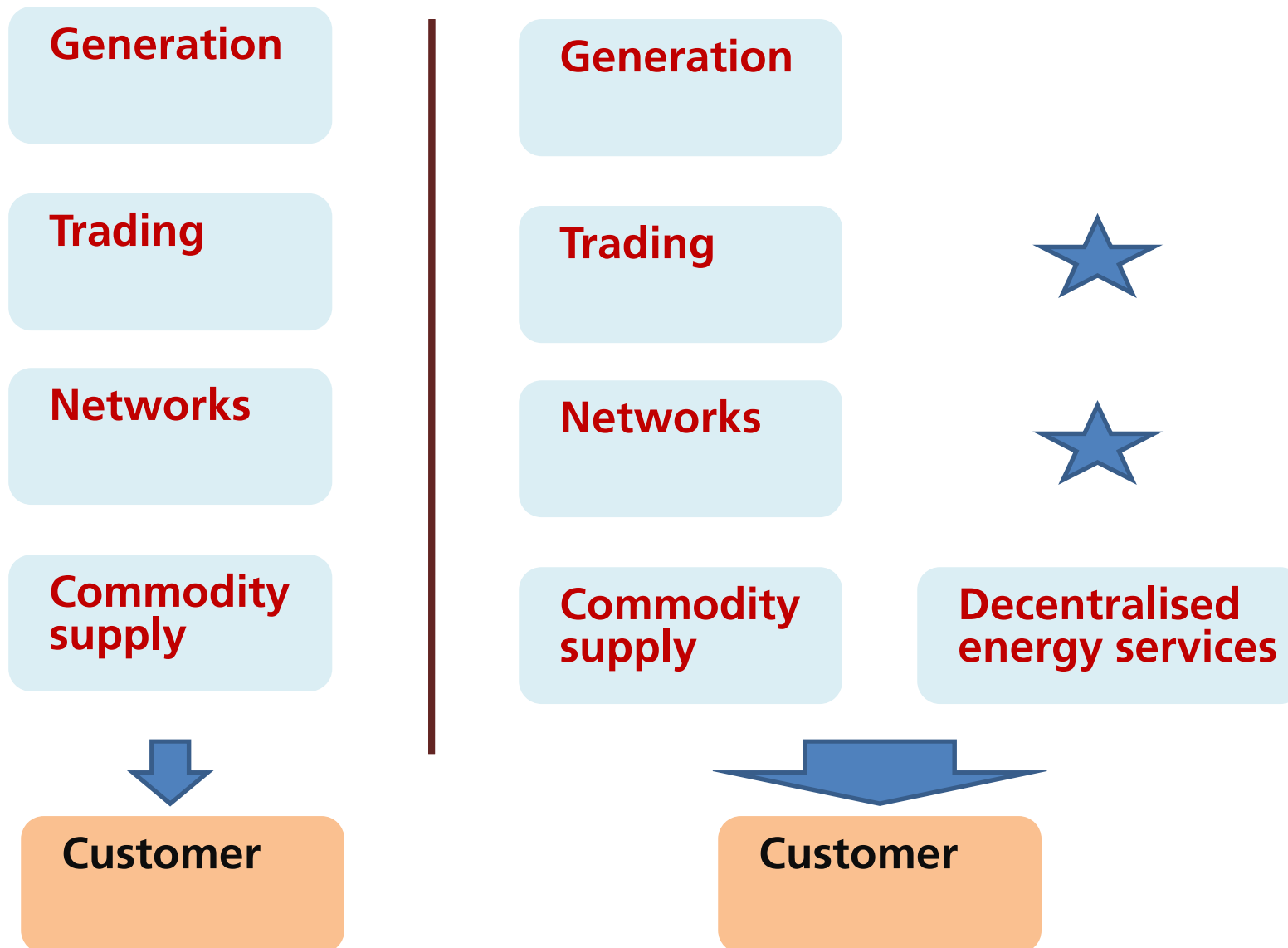
DE Value Chain



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Implications for Utilities



Show Me the Money!

DE Value Chain

**Intellectual
property**

Product

**Customer
offering**

**Installation +
maintenance**

**Energy system
value**

Examples of Action



The screenshot shows the e.on website with a red header. The navigation bar includes links for Home, eon-uk.com, Sitemap, FAQs, Careers, and a search box. Below the header, there are navigation tabs for 'At Home', 'In Business', and 'About Us'. The main content area features a sidebar with links such as 'Business Energy Connections', 'EasyGreen', 'Electricity Products', 'Gas Products', 'Online Services', and 'SmartBilling'. The 'Sustainable Energy Solutions' section is highlighted, featuring a large heading, a sub-heading 'Taking the next steps together', and a photograph of a meeting. Text below the photo describes the company's commitment to low carbon energy solutions. A red call-to-action button for 'Large Business Energy User Customers' is also visible, with a sub-link for 'Login or Register to manage your account online'.

Home eon-uk.com Sitemap FAQs Careers Search → A A A

e.on

At Home In Business About Us

Products & Services Existing Customers Information Centre Quote Energy Consultants Contact Us

Business Energy Connections
EasyGreen
Electricity Products
Gas Products
Online Services
SmartBilling

Sustainable Energy Solutions
Contact Us
Education Programme
Low Carbon Building Programme
Products and Solutions

Sustainable Energy Solutions

Taking the next steps together



Does your business have low carbon energy targets to meet? Are you unsure where to start? Maybe you need new technology. Or perhaps just new ways of using what you've got.

Leave it to us. Our Sustainable Energy Solutions team can make it easier for you.

We'll find the best way for your business to cut back on carbon emissions by providing affordable, reliable and clean energy solutions. It could be the installation of a wind turbine that a school could use to teach pupils about sustainable energy. Or simple measures to make the energy your business uses go further.

→ Large Business Energy User Customers
Login or Register to manage your account online



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Yes! Golden!

**New technology
(and old)**

**Growing energy
market / other
engagement**

**Customer
demand**

**More policy
focus and
support**

No! Grey

**Focus on “large”
low carbon
solutions**

**Barriers are not
removed**

**Customers don’t
buy**

**Access to capital
for new
technology**

**Utilities don’t
fully engage**

**For fossil CHP, a
focus on
renewables**

Golden.....

or Grey?

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