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Your Trusted Energy Partner

The EMR Program

Overview

EMR (Electricity Market Reform) is a government programme to tackle the instability in the electricity market. Currently the UK is on target to meet emission reduction targets by 2030. It's the long-term scenario that is the most challenging aspect, which is why the government are implementing their EMR programme in 2014.

The government wants to decarbonise our electricity infrastructure by and during the 2030s with specific sectors such as heating and transportation being the focal points. The government have set out four carbon plans for the future, which would help reduce our carbon emissions. As shown by the graph below the government is looking at decreasing our carbon emissions by over 100 MtCO2e (Million Metric Tonnes of Carbon Dioxide Equivalent)

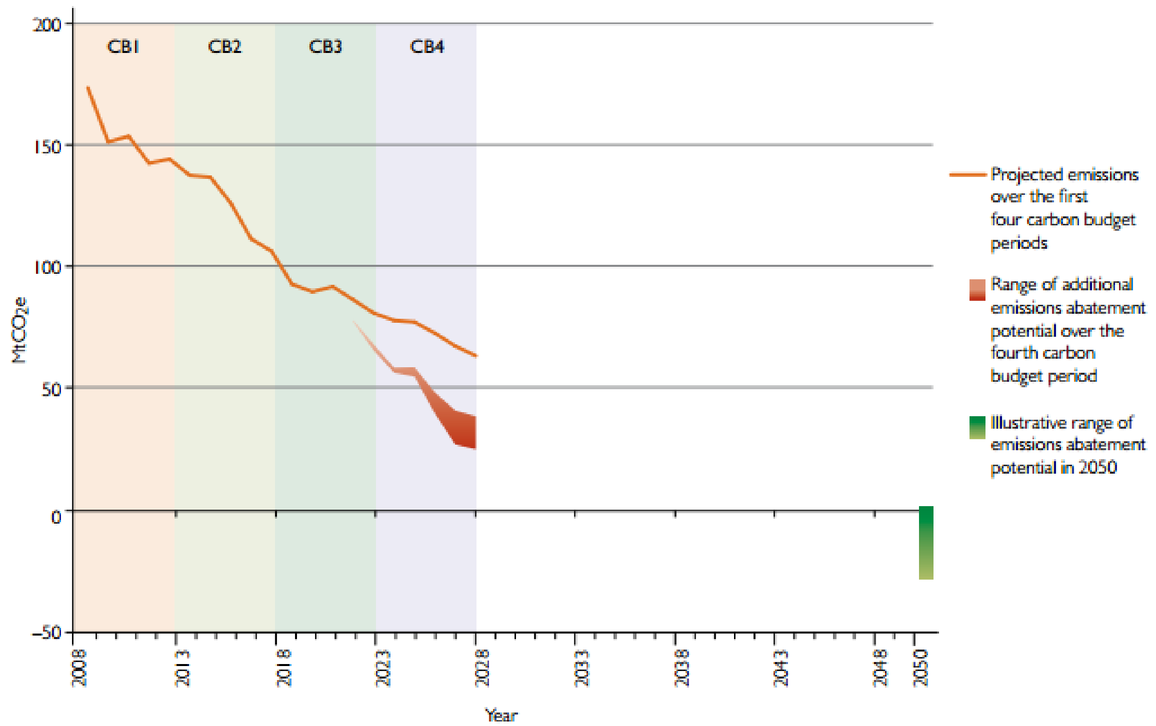

Figure 1. Emissions projections for electricity for the first three carbon budgets and illustrative ranges of emissions abatement potential in the fourth carbon budget period and in 2050 (Source: Gov.uk, Page 70)

By 2050 the government wants the United Kingdom to be powered by a combination of Nuclear, renewable and fossil fuel with CCS technology (Carbon Capture and Storage). This will mean that more investment will be seen in the renewable sector and technology will be upgraded to ensure maximum efficiency. There are two methods which the government have chosen to deliver the programme and these are: Contracts for Difference (CfD) and a Capacity Market (CM).

£110bn
Capital investment needed

40%
Reduction in carbon emissions by 2030

9%
Estimated savings on energy bills

Contracts for Difference (CfD)

What are Contracts for Difference?

Contracts for Difference are a type of Feed in Tariff (FiT) for low carbon generators such as nuclear, solar, wind, hydro and marine energy. The government and a generator agree on a strike price for £/MWh. Therefore, no matter how much the market price will shift the generator will always receive the strike price. If the market price increases to the point where it is above the strike price, the generator will have to pay the difference back.

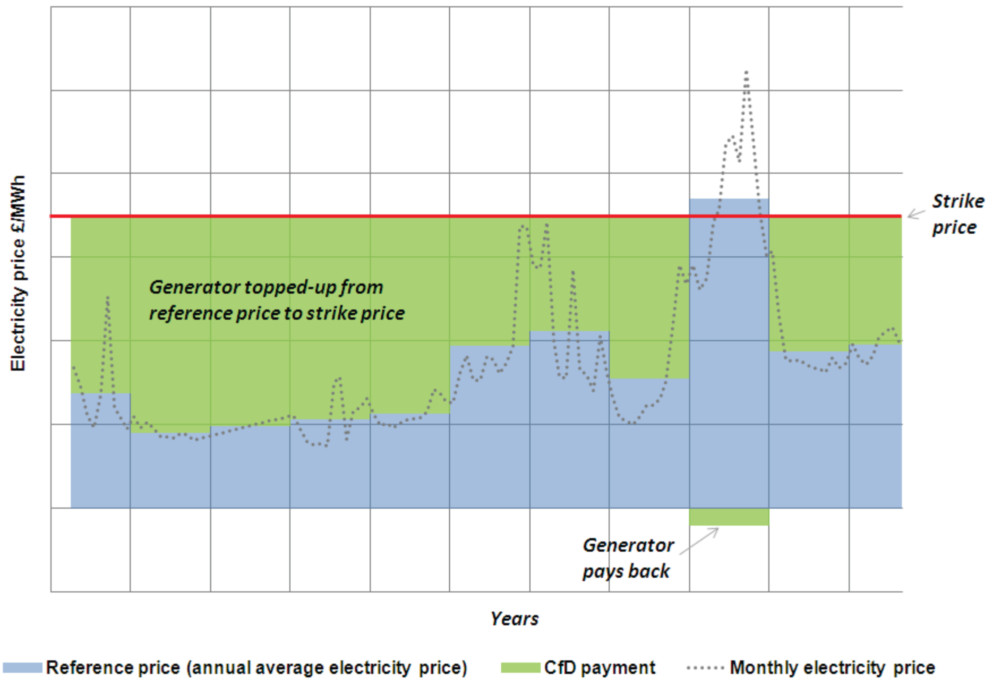

Figure 2. Example Contract for Difference Payment Schedule (Source: gov.uk)

The graph shown in figure 2 represents a CfD, using previous data. The generator has agreed a strike price of £70/MWh. As shown during 2008 and 2009 the market value was above that of the strike price. Therefore the generator will pay back the difference. If the price for electricity is below that of the strike price, the generator will get a top up of funding, from the government. Consumers will not be affected by this agreement as you will still be paying the market rate.

How Will This Affect You?

A CfD will not directly affect you as this is an agreement between the government and the generator. As stated previously, you will not be affected by the CfD in market price as the strike price is an agreement with the generator and government. All consumers will still be paying the market's going rate. However, the EMR program will incur some costs. The price of this cost will initially be £1/MWh starting in 2014/2015 and will sharply rise to £8 - £10/MWh by 2020. This is to drive more renewable and sustainable power generation development to the United Kingdom. This payment will replace the RO obligation that all consumers pay for by 2017.

Capacity Market

What is a Capacity Market?

A capacity market is a security mechanism for the whole electricity industry. It works on the premise that the United Kingdom should store energy to combat security of supply risks. This will mean that there should be ample within our infrastructure during peak periods, especially during the winter solstice.

The reason for this security measure is because of forecasted plant closures all around Britain. These will be happening within the coming decades, due to restricted plant lifespan. Our energy demand is increasing and with plant closures this would mean our supply maybe limited.

The fuels that could possibly be stored are coal and gas, which will be used as a fail safe for peak periods. This reserve will allow a surplus in generation during times that are considered blackout periods.

The Government and Ofgem will be looking at predicting future periods of high demand to minimise the effects of limited supply. This is to calculate the capacity needed to ensure ample supply.

How Will This Affect You?

According to Npower this should reduce wholesale market prices between £5 - £10/MWh. This would suggest that there could be cheaper bills possibly. It would also mean that there should be no shortage of supply either for domestic and business users.

Conclusion

There is no doubt that this programme will shift and reshape the market entirely. The purpose is to increase renewable efforts, reduce our carbon output and break the Big Six grasp. The affects of the EMR program are still uncertain due to the forever changing nature of the gas and power market, along with unexpected developments. Therefore, it is beneficial to keep up to date with current affairs and legislation, and to keep track of the market.

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