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## /foreword

**The price of oil continues to rise, and may well reach a level as high as \$250 per barrel. It is said that the upheaval in the Arabic world is the cause. However, could there be another explanation? After all, the supply of fossil fuels, such as coal, oil and natural gas, is finite, and not only are these fuels becoming more difficult to source, but developing nations are consuming more and more of these stocks.**

Alternative energy sources are one solution, but every alternative energy has its own limitations. For example, bioethanol production takes up farmland that could otherwise be used for food. Wind energy is only available on windy days, and solar power is only available during daylight hours. Nuclear energy involves major risks, as we have all witnessed in Japan in recent times. In short, there's no such thing as a perfect energy source and we will have to combine different forms of energy in order to satisfy our growing energy needs.

## >>there's no such thing as a perfect energy source

A good example of developments in this field is the electric car. Cars nowadays are overwhelmingly powered by oil-based products. However, these fuel sources will not last forever. Will the future see us driving fuel-cell-powered cars that generate electricity from hydrogen-rich raw materials, or cars powered by batteries charged at home or at a recharge point? Eventually, car engines will be powered by electricity. The power source for these engines is not yet known, but one thing that is certain is that electricity will eventually become the uniform source of energy.

One disadvantage of electric power is that it cannot be stored. This makes it extremely important that suppliers meticulously co-ordinate supply and demand. After all, the more electricity we use, the more electricity needs to be made available. For this reason, energy companies and distribution network operators are placing a great deal of emphasis on investigating possible energy storage and energy management techniques. In this edition of Objective, we will inform you of energy-related technological innovations, the Dutch distribution network operator Enexis will reveal their methods, and we will tell you more about our vision of smart networks.

**Happy reading!**