



A capability-based strategy following local market demands

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Energy is at the core of economic development, which makes it one of the few sustainable long-term growth businesses. At the same time hardly any other industry needs to adapt more strongly to emerging new technologies, new political realities, new competition and changing consumer demands.

In Europe traditional value pools of conventional power generation will decline and possibly not return, but at the same time new opportunities will arise. Europe is still heading for a very capital intensive transformation of its entire energy system by showing limited underlying demand growth in energy consumption. Therefore, in Europe power companies will direct an even greater share of their resources towards new value pools such as renewables and decentralised energy solutions. This will naturally increase the competitive pressure on the remaining conventional generation.

At a global level, the situation looks markedly different. Whilst renewable generation is on the rise, demand for conventional power generation capacity is still significant. Since material growth of power demand is expected, large investments in power generation will be needed. Such investments will require markets to allow investors to receive an adequate return on their capital.

As part of a strategic review of the company, E.ON has recently decided to significantly broaden its geographic footprint outside its traditional European base. Whilst E.ON has already a strong position in Russia and the US, the company will now extend its presence to Brazil, India and Turkey in the short- to mid-term. In these countries and at this point in time, E.ON sees the best opportunities to make use of its broad expertise in conventional and renewable power generation, given the strong demand situation in line with GDP growth.

Major energy companies in European countries: From growth to transformation

On the grounds of demographic developments, growth of energy demand in Europe will be rather modest over the next years to come. The European power market in the last two decades was basically driven by competition and environmental goals. Major energy companies that are active in the liberalised European markets have consequently learned e.g. to become more competitive by cutting costs in operating power plants, to build new power plants at lowest possible costs and risks, to run a portfolio with a mix of conventional and intermittent wind and solar power

plants, to optimise a power plant portfolio with national and cross-border trading, and to re-design existing power plants in order to fulfil stricter emission targets. Particularly strong renewable goals in Europe made some European energy companies to global leaders in developing and operating onshore and offshore wind power plants, while simultaneously improving their conventional power plants in order to compensate for the intermittent renewable electricity generation. The latter is especially true for countries with an already high share of wind and solar generation such as Germany and Spain.

This transformation process in Europe is just taking new momentum: Improving grid structures, more decentralised generation, enhancing demand response, developing electricity storage will be further cornerstones of the European development. Hence, the transformation will lead to the continued development of technological solutions – and also their large scale implementation. In this sense, Europe could be viewed as one important laboratory for the energy solutions of the future. The knowledge that will be gained in Europe might become relevant and applicable for other regions in the near future. And this knowledge does not only include the technologies – but importantly the infrastructure in which power has to be generated and distributed reliably and at competitive costs. In the future there will be more

Blue skies thinking: the road to cleaner and better energy



interplay between generation and consumption that will influence the operations of power plants. Electronic signals from the consumers will indicate the need for power and trigger appropriate generation levels. This will ultimately lead to a closer relationship between producers and consumers and to a combination of technologies from the power sector with technologies from the communication and IT sector.

The system transformation that Europe and especially Germany has embarked upon is capital intensive, but we see new value pools emerging, for example around decentralised energy solutions. In Germany decentralised renewable generation such as PV solar and small-scale wind has grown from less than 2 per cent of total power generation in 2000 to almost 12 per cent last year. E.ON is a major participant in the transformation of the European power system towards renewable generation, with major positions in wind, biomass and solar power. We continue to push for an industrial style application of these technologies with the aim to bring the cost down even further and move up its technical availability.

A demand-driven capability transfer from Europe to other regions

Emerging economies still have a growth story in their energy markets. Their challenge is to build in a sustainable manner the needed combination of generation technologies and a powerful and flexible infrastructure that guarantees affordable access to energy. Energy companies with strong experience can play a supporting role: Backed by their broad knowledge in all parts of the value chain and being familiar with all types of power generation, they can deliver valuable insights to design the needed energy system in a cleaner and better way.

As part of a broader strategic review, E.ON believes that it can contribute to the massive expansion of power generation in markets outside Europe on the grounds of a capability-based strategy. Following a detailed analysis, E.ON has determined three regions where E.ON will focus its new and future activities outside of Europe: Brazil, India and Turkey. These regions meet E.ON's strict requirements of a long-term, sustainable and accessible growth potential and of market attractiveness. The mega-growth in these markets is grounded in solid domestic demand increase, even if in each market with a different profile. Additionally there is an increasing relevance of new entrants into the power market with limited capabilities in particular at multi-

plant level which represents a good capability inroad for E.ON. Finally these markets offer an attractive risk/return ratio. Since August 2011 E.ON has a presence in these three countries by experienced management teams with material local expertise supplementing extensive capability on the power sector. The teams have started to pursue specific business opportunities, in particular aiming at cooperation with strong local partners.

The key element for E.ON, however, is not the pure display of subject-matter expertise, but rather combining it with a strong focus on understanding first the specific local needs and subsequently providing tailor-made solutions from a very strong capability set in the power generation landscape. Capabilities in this context are all abilities to deliver the organisation's strategy, by means of people, processes, technology and systems. E.ON is looking at its capabilities at three distinctive levels:

- at single power plant level: with an extensive operator experience over the full life cycle of plant from origination to decommissioning;
- at multi-plant level: the capability to manage complex portfolios of power generation assets;
- at power market level: integrating technical with commercial understanding of how markets work technologically, commercially and competitively at different stages of market maturity.

We believe that partnerships between incumbents in the local markets and energy companies like E.ON have the power to significantly boost development of power generation: E.ON for instance is active in many European countries, Russia and the US, each market with a different set of regulatory frameworks, demand profiles and market dynamics. In addition, E.ON over the past years has developed dedicated programs for fleet and single-plant optimisation, across the full range of conventional and renewable generation technologies.

E.ON will maintain its position as an industry-shaping company in Europe, but will increasingly take positions outside Europe on the grounds of a capability-driven strategy that strictly follows consumer market demands and will build strongly on partnerships with local companies. Based on many decades of experience with the entire set of power generation technologies and being a company striving for the best performance, E.ON will position itself as a partner that will contribute in designing the optimum energy solutions in line with our strategic mantra 'cleaner and better energy.'

