

**Press contacts:**

Sam Connatty  
Tel : +44 (0) 870 904 3601  
E-mail: [sam.connatty@capgemini.com](mailto:sam.connatty@capgemini.com)

## 17th Annual Edition of the European Energy Markets Observatory: Digital transformation represents a fantastic opportunity for Utilities to adapt to the energy transition while increasing competitiveness

Paris, November 3, 2015 - **Capgemini**, one of the world's foremost providers of consulting, technology and outsourcing services, in partnership with the Global Research team at **Natixis, I4CE – Institute for Climate Economics** and **CMS bureau Francis Lefebvre**, today published the seventeenth edition of the **European Energy Markets Observatory** (EEMO) report. The study shows that in 2015, as in 2014, European electricity and gas markets remained very unsettled and that despite the strengthening of Europe of Energy<sup>1</sup> announced in early 2015, measures that will be implemented to restore a consistent market and improve security of supply, are neither fast enough or tangible. In this gloomy context, Utilities must imperatively move to reap the benefits from digital transformation. In addition, on the eve of COP21, the Observatory welcomes the initiatives of the United States, China and Europe but draws the attention of conference participants to the specific present context created by the low price of hydrocarbons.

**Three main findings can be drawn from this year's European Energy Markets Observatory:**

**1. Energy transition and digital transformation: two mutations that benefit from each other in a positive way**

In Europe, while Utilities need to improve their productivity, they face an energy transition which strongly impacts their business model. Perry Stoneman, Utilities Global Sector Leader at Capgemini comments, "*In this dual context, it is imperative that Utilities fully and rapidly implement their digital transformation because it will allow them to adapt to the new markets situation and to make productivity gains. The coincidence of these two mutations provides a real opportunity for Utilities to transform into services businesses and they must seize it quickly.*"

The Observatory notes the multiple changes in business models triggered by the energy transition such as distributed generation, the electricity grid complex management with an increasing share of renewables (smart grids), demand-side management<sup>2</sup>, "prosumers"<sup>3</sup>, smart meters improving operators' knowledge of customers (data mining), new customer relationships, Internet of Things, etc.

<sup>1</sup> Europe of Energy strengthening is the intent of the European Union (a Framework Strategy for a Resilient Energy Union) launched in February 2015

<sup>2</sup> Demand side management: Utilities incentivize their customers to reduce their consumptions at peak hours

<sup>3</sup> Prosumers are consumers that generate part of their energy needs thanks to decentralized renewable production

These changes coincide with depressed wholesale electricity and gas markets<sup>4</sup> and with a dramatic drop in oil prices that accentuates the decline of all energy prices.

Finally, as highlighted by the Utilities team within Global Markets Research at Natixis, “*the Utilities financial situation remains difficult and their stock performance is poor. A number of European electricity operators are strongly impacted by the wholesale prices downward trend. In this context, in recent years, European Utilities have taken various balance sheet strengthening initiatives such as asset sales and hybrid debt issuance. However, despite these initiatives, their debt levels remain high.*”

**2. It is now unlikely that the COP21 will lead to sufficiently strong and timely measures to limit the increase in global temperature to 2°C. Therefore it is crucial that, in addition to the mitigation efforts to master greenhouse gas emissions, adaptation measures limiting global warming effects on the population and infrastructures are taken and financed**

COP21 will take place in an unfavorable short-term context: with low hydrocarbon prices, return on investments aimed at replacing hydrocarbons and thus limiting greenhouse gas emissions, are insufficient. With the scheduled end of feed-in tariffs, the decrease of these prices will also impact the renewable development speed as their selling prices will be increasingly linked to wholesale market prices.

On the eve of COP21, the Observatory notes the positive progress made by major emitters of CO<sub>2</sub>. In the United States, President Obama has pledged to reduce by 26-28% the country's CO<sub>2</sub> emissions in 2025 (compared to 2005), and is trying to impose a stricter regulation on coal plants. In China, Premier Li Keqiang committed to reduce the country's carbon intensity per unit of GDP by 60-65% by 2030 (compared to 2005).

The Observatory also notes that Europe is to some extent the "good student in the class". However, it must establish consistency between the various measures taken to reduce CO<sub>2</sub> emissions (e.g. ETS<sup>5</sup>, renewables, energy efficiency, CCS<sup>6</sup>) as these measures generate very different costs for the community and give inconsistent signals to the market.

**3. The European energy markets remain very unsettled**

Several factors impact the European energy markets. Wholesale electricity market prices are low (less than €40/MWh in H1 2015, down from 2014) while retail prices are increasing (+2.9% between H2 2014 and H2 2013). In addition in some European countries, there are electricity or gas supply security risks, in a context of a strained relationship with Russia. Finally, long-term investments in schedulable generation capacities are scarce while they should reach €1.1 trillion by 2025 for electricity and gas infrastructures, including €500 billion in generation.

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<sup>4</sup> Closure of gas-fired plants has continued

<sup>5</sup> Emissions Trading Scheme

<sup>6</sup> Carbon Capture and Storage

"Despite a relevant analysis, Energy Union announcements in early 2015 do not provide sufficiently quick and tangible enough measures to restore a consistent market and improve security of supply," explains Colette Lewiner, Capgemini's Energy and Utilities worldwide expert. "A consistent market recovery would involve: (i) the acceleration of the EU ETS market reform with the implementation, before the end of the decade, of the Market Stability Reserve adopted by the European Union<sup>7</sup> and the introduction of a central regulatory body for this market, (ii) the mandatory implementation of new energy efficiency norms and standards for buildings and (iii) for all intermittent renewables (especially solar and wind), a quick feed-in tariffs termination and replacement by selling prices linked to the market."

To improve energy security of supply, the Observatory makes four recommendations:

- (i) implementing more quickly and consistently capacity remuneration mechanisms,
- (ii) continuing shale gas exploration which is a source of domestic gas,
- (iii) studying and financing a truly unified and smarter high voltage grid implementation,
- (iv) allocating more research and development resources to competitive electricity storage solutions.

**The European Energy Markets Observatory** is an annual publication of Capgemini that tracks progress in establishing an open and competitive electricity and gas market in EU-28 (plus Norway and Switzerland) and the progress in reaching the EU's 3x20 climate change objectives. The report looks at all segments of the value chain and analyzes leading-edge energy themes to identify key trends in the electricity and gas industries. The 17th edition is built on a majority of public data sources and based on 2014 and winter 2014/2015 data sets.

The analysis is made by a team of consultants and regional experts of Capgemini Consulting, the global strategy and transformation consulting organization of the Capgemini Group. Their in-depth knowledge combined with sector news crunching provide an insightful analysis which is enriched by the expertise from our selected partners: Natixis, I4CE – Institute for Climate Economics, CMS Bureau Francis Lefebvre and VaasaETT.

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<sup>7</sup> This mechanism will allow to adjust, with predefined rules, the volume of carbon quotas to be exchanged on the EU ETS in order to ensure this market stability