

Energy in western Europe – the perfect storm

Pioneer Point Partners is a sector-specialised firm that invests in European private companies based on proprietary research themes. Pioneer focuses exclusively on sustainability and the digital economy. The firm partners with family offices on a direct investment basis. Here we explain one of our core themes and how we went from theme to portfolio investment.



The number of near black outs, known as “serious systems stability” incidents tripled last year in Northern Europe to 1,000. What’s going on? The beginning of the Perfect Storm, the ingredients of which are as follows:

Ingredient 1: Unreliable renewables

In France the percentage of time wind farms were generating power in 2011 varied from 1-60%. The irony is the wind often doesn't blow when it is very cold (when you need it most). The EWEA estimates that 230 gigawatts (GW) of wind capacity will be installed in Europe by 2020. More wind = more volatility = more instability

Ingredient 2: Nuclear decommissioning

Nuclear has been a cheap and reliable energy source. Post Fukushima, Germany is shutting down all nuclear, Spain/Italy are firmly against, the UK is in limbo, even nuclear champion France is locked in a national debate (nuclear provides nearly 80% of France's power). Less nuclear = less reliability = more instability

Ingredient 3: Ageing fleet

70% of the power plants in Europe are over 30 years old. Ageing fleet = more breakdowns = more instability

Ingredient 4: Lack of investment

11GW of coal power generation is due to close in 2015 under the Large Combustion Directive. 27GW of new projects are delayed. Why? Regulatory uncertainty and u-turns (expect more) spook investors, utility companies are saddled with debt and a €1.2 trillion capex need, spark spreads are very low, economic uncertainty, banks in distress. Lack of investment = lack of replacement generation = more instability

Distributed energy

These ingredients combine to create the perfect storm, with huge amounts of reliable power being replaced by unreliable power, or not replaced at all. This storm will get worse as the decade progresses and will lead to significant instability and security of supply concerns in the 2015-20 crunch period. Some experts predict major black outs normally seen only in emerging markets. Distributed energy will play a significant role in addressing this storm. Distributed energy is essentially small, de-centralised, highly flexible power that can turn on/off quickly to keep the system balanced and secure. This will require a lot of capital (analysing RWE data we believe €16b of investment is needed for flexible generation in Europe by 2020). Perhaps

one day the dream of batteries and demand response will smooth the system, but in our view this is many years away.

Pioneer investment: Peak Gen Power Limited

Pioneer partnered with a family office to invest in PeakGen in 2010. PeakGen's vision is to be the leading distributed energy company in the UK, capitalising on the growth in flexible power coupled with a strong focus on capital protection. PeakGen has developed and constructed a number of small, highly flexible power plants below the radar of utilities. These are contracted by the National Grid as sources of short term capacity, delivering power in less than two minutes. Underpinned by assets and long term contracts providing inflation-linked standby fees, PeakGen has excellent capital protection characteristics in this highly uncertain economic and regulatory environment. Pioneer's family office partner brings a shared long term vision, value-added energy expertise and flexible capital.

In the next issue Pioneer will write about a second investment theme...

References: Eurelectric, EU Energy Trends to 2030, RWE, Press Analysis, Citigroup



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