

## Smart Energy Ecosystem

**Bernard Ourghanlian**

**CTO, Microsoft France**

39 quai du Pdt Roosevelt, 92130 Issy les Moulineaux - bourghan@microsoft.com

**Key-words:** *smart energy ecosystem, smart energy reference architecture*

The structure, engineering and objectives of the world's power systems are undergoing dramatic rethinking and significant change. New driving forces – like climate change, novel market participants such as plug-in hybrid electric vehicles, and increasing energy demands – are combining to drive the development of what is being referred to as the smart grid.

Many observers believe that the extent of change and its impact on societies could be on the same scale as the inception of the grid itself and will affect every single part of the power utility industry.

Because of the wide range of the participants who will be affected by this transition, Microsoft believes it's more accurate to refer to the new utility landscape as a "smart energy ecosystem" that's collaborative and integrated.

New processes such as end use loads dynamically participating in the ecosystem in a meaningful way, and new data requirements such as the 2,880 fold increase moving from 1 customer billing sample per month to 15 minute samples for a 30-day month, will significantly change the landscape. Smart metering, automotive electric propulsion, renewable generation, new communications, new business models and a host of new industry players will all shape the future.

As a result, Microsoft is focused on enabling the technology innovation and advancement needed to create such an ecosystem.