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Title - Embedding Sustainability – An Evolving Technical Role in Future Regulation.

A substantial change in the role of a Regulator is in the offing. The traditional role of financial regulation and customer rate protection, is now being “burdened” with sustainability drivers. These “people-driven” aspirations (often conflicting or untested) are driven by “greener planet” expectations, climate change, young demographic wants and falling costs of distributed technologies (generation, storage, telecom, microprocessors). The lines of G, T, D and U is now blurred with bidirectional power flows, and prosumers. Up until now, the heavy-lifting of sustainability direction came from government policy. This is now about to change. With almost a decade (or more) of directing sustainability (often with corrective actions), governments globally are now pulling back. This means people-driven aspirations will come directly to the door of the Regulator now (with no government intervention). Regulatory Boards that are dominated by legal and financial experts will now need to diversify themselves with technical, environmental and behaviour experts. The smoothening effects of traditional cost-of-service regulation will give rise to volatility. Cost containment will conflict with untested investments. With little tools developed to assess or validate sustainability, future regulatory decisions will likely find itself requiring quick corrections. All new and burdensome to the Regulatory function.

1. Additional Talk (proposed by Regional Regulatory Association) – Session TBD

Title - Utility 2.0 – Transformation to New Business Models

The utility landscape is rapidly changing. Smart grid technologies, prosumerism and low cost distributed technologies (micro-generation, storage, telecom, microprocessors) are eroding traditional revenues and severely denting return-on-asset and other regulated rate of returns. The internet of things expectation together with technology convergence (self-generation, flex-fuel options, combined heat/power and load control) is also blurring the traditional lines between electricity, gas, hot-water, thermal services. Like the telecom sector convergence (landlines, wireless, TV, home-security and cable), we will see a merging of offerings with the new competition being “combined energy services” (electricity, thermal – all bundled). Most of these services will be behind the meter and hence will be unregulated. Such services will include wiring upgrades, CHP, thermal/battery storage, PV installation, energy-loss insurance, climate change protection, islanding capability, and financing/lease options. All this will lead to changes in risk profile, a lower cost structure and proactive customer service business models. So, while the regulated utility revenues will decline, the unregulated side will increase. In this transformation, some utilities will succeed while many will potentially fail and merge with others.