



## **Big data meets resiliency**

October 27, 2014 - Green Buildings

Big data is quickly establishing itself as the "new analytics" in terms of capturing data, calculating metrics and creating new tools for the efficient management of resources.

Key to the emergence of this trend is the automation of data collection through wireless sensors and smart technologies which manage our building systems, which in turn, automate systems responses with the sole purpose of driving operational efficiencies, i.e. motion sensors for regulating lights on/off.

Resiliency as a mindset for planning and responsiveness is supported by big data when properly tooled for the task.

As an example of resiliency as a response in the face of crisis, anecdotal estimates suggest that up to half of New York City building's emergency back-up generators fail to start when needed, primarily caused by lack of maintenance and regular full-load testing - a task easily automated by big data so as to prevent future failures.

As an example of resiliency as a matter of planning, passive design principles, including building envelope, natural ventilation, shading, water capture/storage allow buildings to provide adequate comfort/services, increasing their resiliency by reducing energy dependency.

Viewing "resilience as opportunity," the opportunity of being resilient is not limited to being able to deliver when others affected by the same incident cannot. It is much more about applying the thinking to other business problems and creating new ways of working. Towards that end, big data can automate and deliver with unparalleled speed and accuracy the tools needed to glean the efficiencies from resiliency as a mindset and response.

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