What If No Electrical Grid, December 8, 2015.

A. Michael Noll
Columns · 2015
Original: http://quello.msu.edu/what-if-no-electrical-grid/
Archived copy, Internet Archive snapshot 2017-06-22

Bill,

In case my comment was not clear, there are multiple visions of the smart grid, with very different implications for our future. Incumbent utilities (and many regulators) envision a utility-controlled grid with continuation of centralized generation and control. The other vision is much more in line with what you describe: increasingly distributed and renewable-based generation, linked to micro-grids in which homes and businesses are increasingly reliant on their own renewable generation, with neighborhood, city and regional-level grids existing to share and balance generation and usage levels in ways that drive efficiencies and empower end-users rather than aggregate more power and control of information in the hands of centralized utilities with business models that are inconsistent with a rapid migration to renewables.

As Tim Schoechle and others explain, the risk is that the centralized utility-backed “smart grid” vision has too many internal contradictions and negative inertia driven my legacy business, tech & regulatory models that, as you put it, “nature will eliminate the offending organism.” Understanding how that can be avoided strikes me as a vital and complex set of research questions with the kind of public policy import your comment suggests, and that are best addressed via interdisciplinary research.

Archival reading copy rendered from the Internet Archive snapshot of the page above, for the A. Michael Noll collection at bre.art, with the author's permission. Text is the author's; this layout is not the original publication's.