

Abstract Submitted
for the FWS14 Meeting of
The American Physical Society

From Electrons Paired to Electric Power Delivered – A Personal Journey in Physics Research and Applications at IBM, EPRI, and Beyond PAUL GRANT, W2AGZ Technologies — This talk will reprise a personal journey by the speaker in industrial and applied physics, commencing with his employment by IBM at age 17 in the early 1950s, and continuing through his corporate sponsored undergraduate and graduate years at Clarkson and Harvard Universities, followed by a 40-year career focusing on the properties of conducting and superconducting organic and polymeric materials, employing a wide variety of experimental and computational techniques, first at the IBM Almaden Research Center, and later with the Electric Power Research Institute. Now in “retirement,” he pursues and publishes his computational (DFT) studies on “proxy” copper monoxide structures in hope of clarifying the pairing mechanism underlying high temperature superconductivity. In summary, the speaker’s career in applied physics demonstrates one can combine publishing a record three PRLs in one month with crawling around in substations alongside utility lineman helping install superconducting cables.

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Date submitted: 10 Oct 2014

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