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Presentation Title: NEIs / NEBs -- Data from 1000 US and International Studies to Learn the Best / Latest Values for Health NEIs and remaining "Gaps"

Abstract: What drives households and businesses to participate in energy efficiency (EE) programs? Not purely energy or bills savings, but a wide variety of other "features" that EE programs and the installed measures bring. Non-Energy Impacts / Benefits (NEIs/NEBs) provide quantitative valuations of the wide range of household, business, societal, and utility effects caused by energy efficiency programs quantifying the value provided to each beneficiary, bolstering program uptake and ROIs. Health impacts have been a particular focus in the US and internationally especially in the low-income side -- but health impacts have very significant benefits to businesses, and to society at large. Which health effects matter, and how much are they worth? As part of a large project to update a comprehensive NEBs database, the authors reviewed more than 1000 studies and assembled more than 30,000 NEB data entries. In a spin-off, we reviewed the health-related NEBs data to identify and quantify the array of health effects associated with EE programs. Years of health-related NEI research has found that developing defensible valuations has been a challenge. Valuation of health impacts is a slippery slope. Simple methods have been enough to show the impact is important and potentially large, but truly defensible modeling is complicated and expensive. This paper reviews the literature from the US and internationally on health impacts, including findings on individual illnesses (asthma, etc.) and broader studies from the US, UK, New Zealand, and elsewhere. We report defensible values for a range of residential and commercial participant-perspective health effects, as well as societal health estimates. We provide the essential measure links, to help support (at least some) transferability of the results. Finally, based on the large database work, we identify remaining gaps in NEBs work, and an assessment of the priority of these NEBs. NEI / NEB meta-analysis