**Outline**

**Intro (1 paragraph) 🡪 Hossein**

Energy is the most important topic of our time. Every community, every building, and every business is underpinned by energy, and our dependence on energy is only increasing. Despite all technological advancements in energy efficiency, by 2040, world energy consumption is expected to be about 60% higher than its 2010 level (U.S. Energy Information Administration 2013). Proper understanding of patterns and drivers of energy demand is important for economic growth, natural resource conservation, and climate change. With about 20 to 30% share in global energy demand (Lucon et al. 2014; Norman, MacLean, and Kennedy 2006; Roaf, Crichton, and Nicol 2005; Swan and Ugursal 2009), residential buildings are one of the world’s largest energy consumers and CO2 emissions producers. Surprisingly, however, we know very little about the processes that drive energy demand in buildings.The widespread lack of knowledge about energy demand in buildings translates to a massive missed opportunity. …

**Why demographic factors are important (1 paragraph) 🡪 Hossein**

Buildings do not consume energy, per se. Rather, consumption of energy at home is an outcome of human activities, behaviors, and choices. Understanding of the role of human-related determinants of residential energy use has been limited to direct behavioral effects (Moezzi and Janda 2014), such as energy audit programs. In contrast, most of the current residential energy efficiency debate has been focused on energy supply, housing stock, and other technical attributes (e.g., home appliances, building energy systems), underestimating the complexities of the role of resident households in energy use processes (Aune 2007; Brounen, Kok, and Quigley 2012; Kavgic et al. 2010; Kriström 2006; Lutzenhiser 1993). “Engineers and other natural scientists continue to usefully develop innovative solutions to the question of ‘how we can be more efficient?’ However their work does not answer the question ‘why are we not more energy-efficient, when clearly it is technically possible for us to be so?’” (Crosbie 2006:737) Despite improving energy efficiency in buildings, energy consumption has continued to grow globally (Ewing and Rong 2008; Pérez-Lombard, Ortiz, and Pout 2008). Future increases in residential energy consumption due to demographic changes, such as income growth and population aging, can almost offset the amount of energy conserved by improving the energy efficiency of buildings (Brounen et al. 2012), which warrants the increasing values that social sciences can provide to energy research (Ryan, Hebdon, and Dafoe 2014). While social sciences offer significant promises in energy research (Lutzenhiser 2014), the application of methods and concepts from social sciences remain ‘underappreciated’ (Sovacool 2014). As a result, current energy policy has little understanding of energy consumption as a ‘system of social processes’ (Moezzi and Janda 2014).

**Problem(s)/question(s)/goal(s) – no limit for now, let’s capture all ideas 🡪 Hossein & Emilio**

**Method (1 paragraph) 🡪 Emilio**

**Data (1 paragraph) 🡪 Hossein**

For the purpose of this study, we intend to use seven waves of public microdata from the Residential Energy Consumption Survey (RECS) between years 1987 to 2009. RECS is a periodic multistage survey sponsored by the U.S. Energy Information Administration (EIA), which provides detailed information on energy consumption in U.S. homes (U.S. Energy Information Administration 2013e). The EIA administers RECS to a nationally representative sample of housing units occupied as a primary residence. Information collected at random using a complex multistage, area-probability sample design, through the survey’s three stages (including Household, Rental Agent, and Energy Supplier surveys). The EIA asserts that RECS is “the only survey that provides reliable, accurate and precise trend comparisons of energy consumption between households, housing types, and areas of the country.” (U.S. Energy Information Administration 2011)