



## Closure Rules for Non-Intrusive Appliance Load Monitoring

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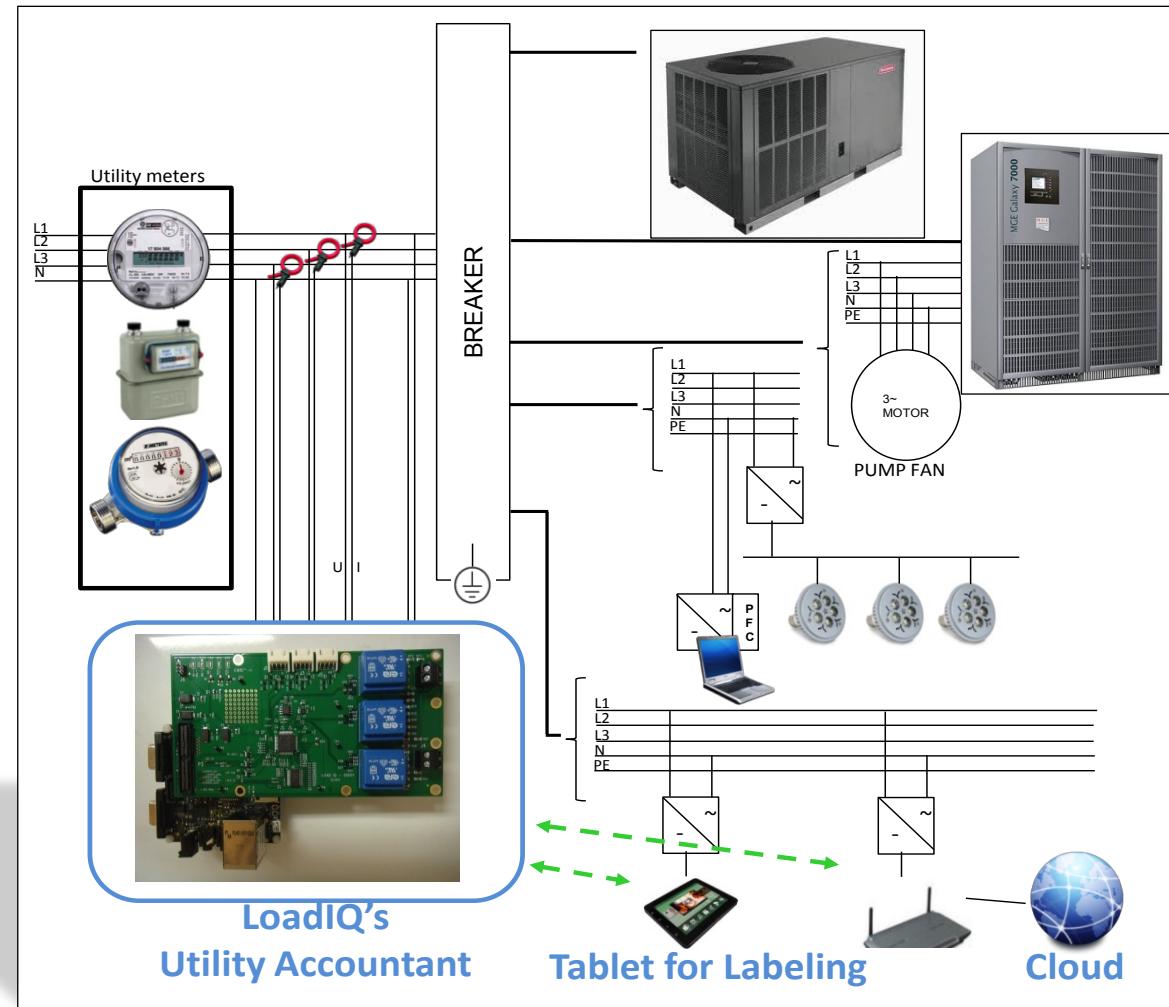
# Load IQ LLC

- Formed in 2007 in Reno, NV
- >\$1M Grant Funded (California Energy Commission, Nevada Institute of Renewable Energy Commercialization, National Science Foundation, Dept. of Energy)
- Ongoing paid trials with Siemens, ATT, & GDF Suez
- 2011 Clean Tech Open Finalist
- Four Patents

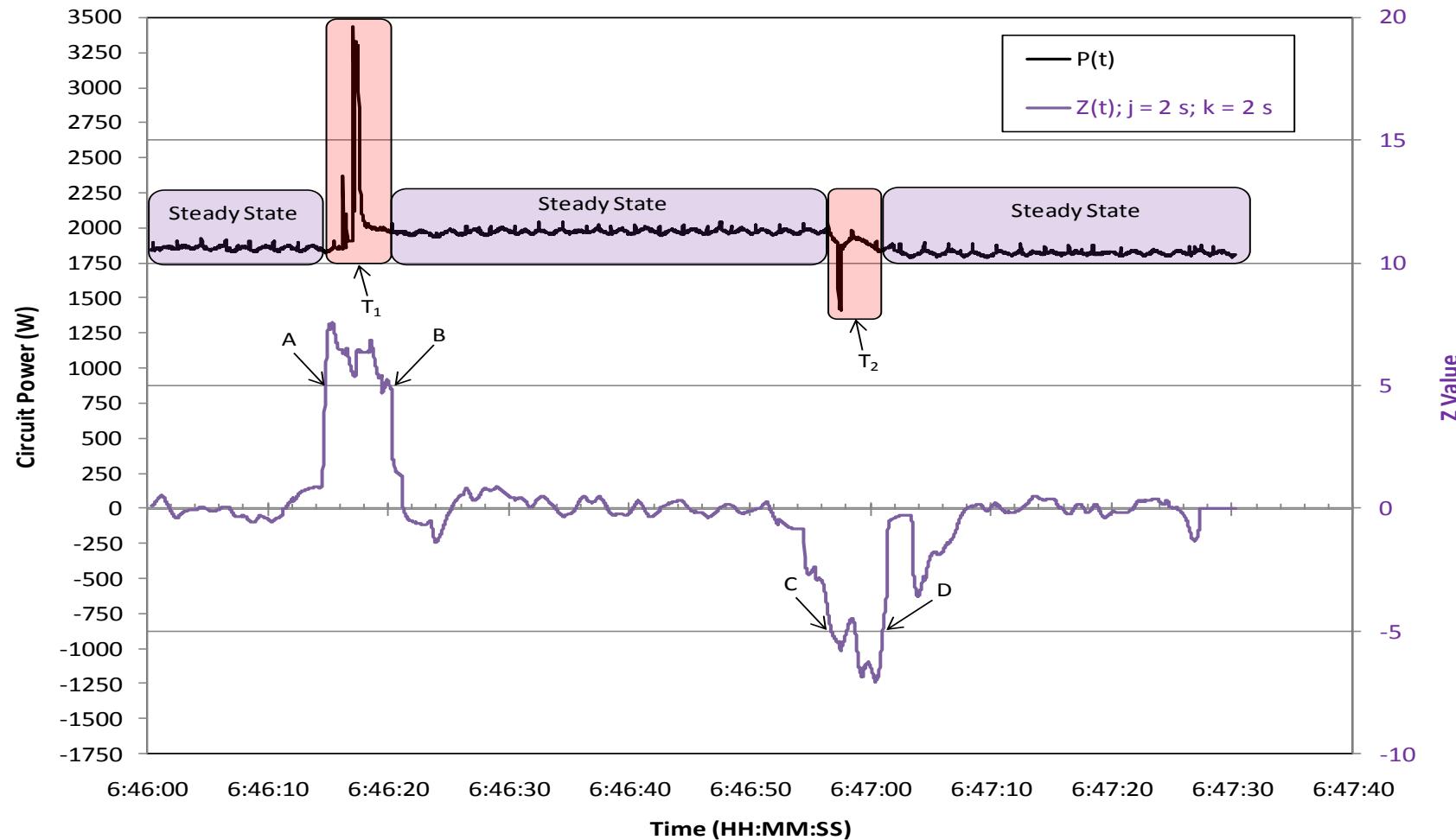


# Non-Intrusive Load Monitoring (NILM)

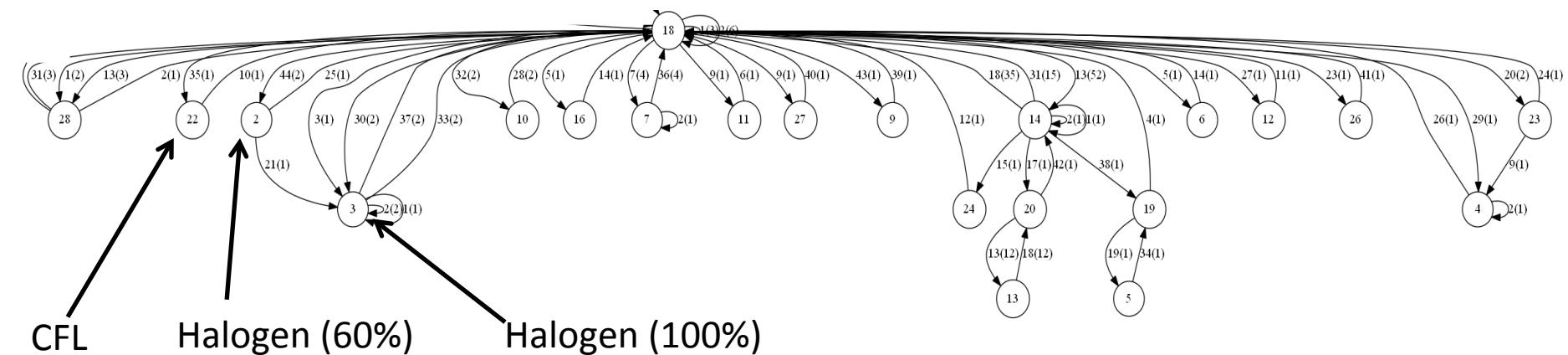
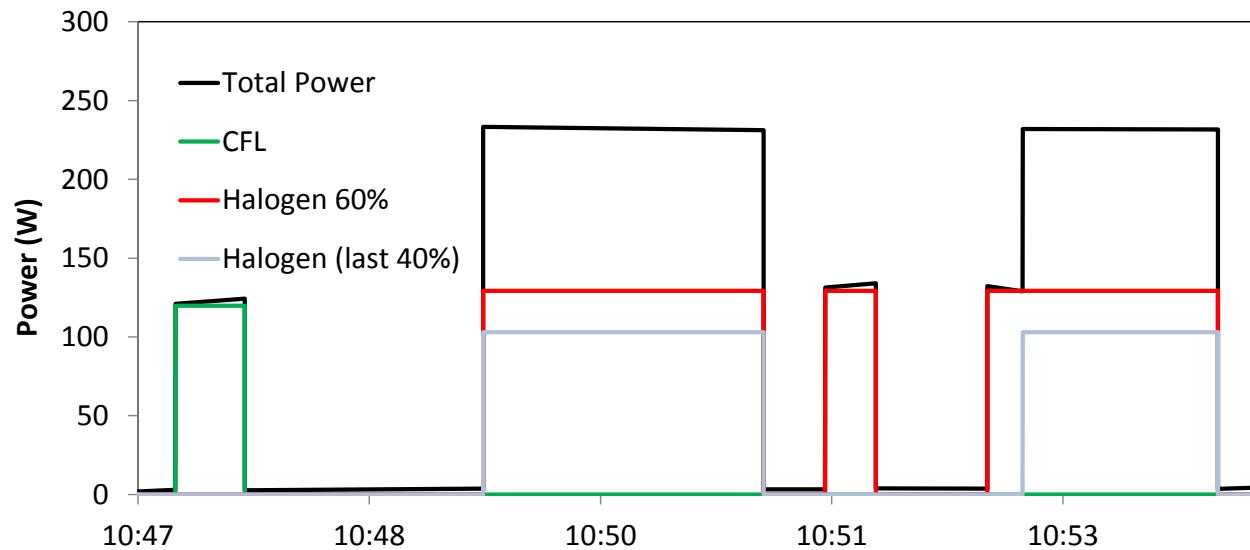
- Measuring multiple loads from a single point of measurement



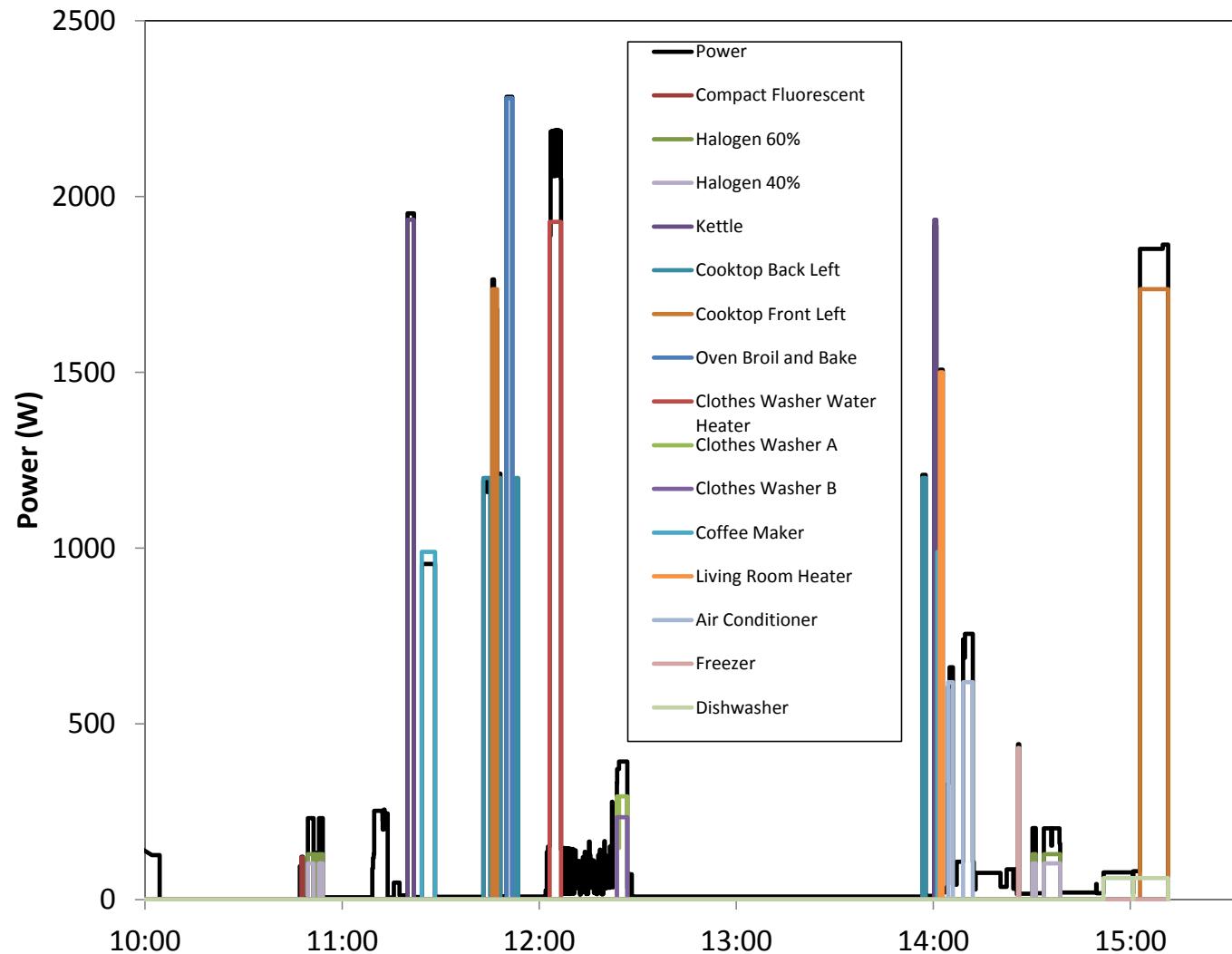
# Two kinds of states: Steady & Transition



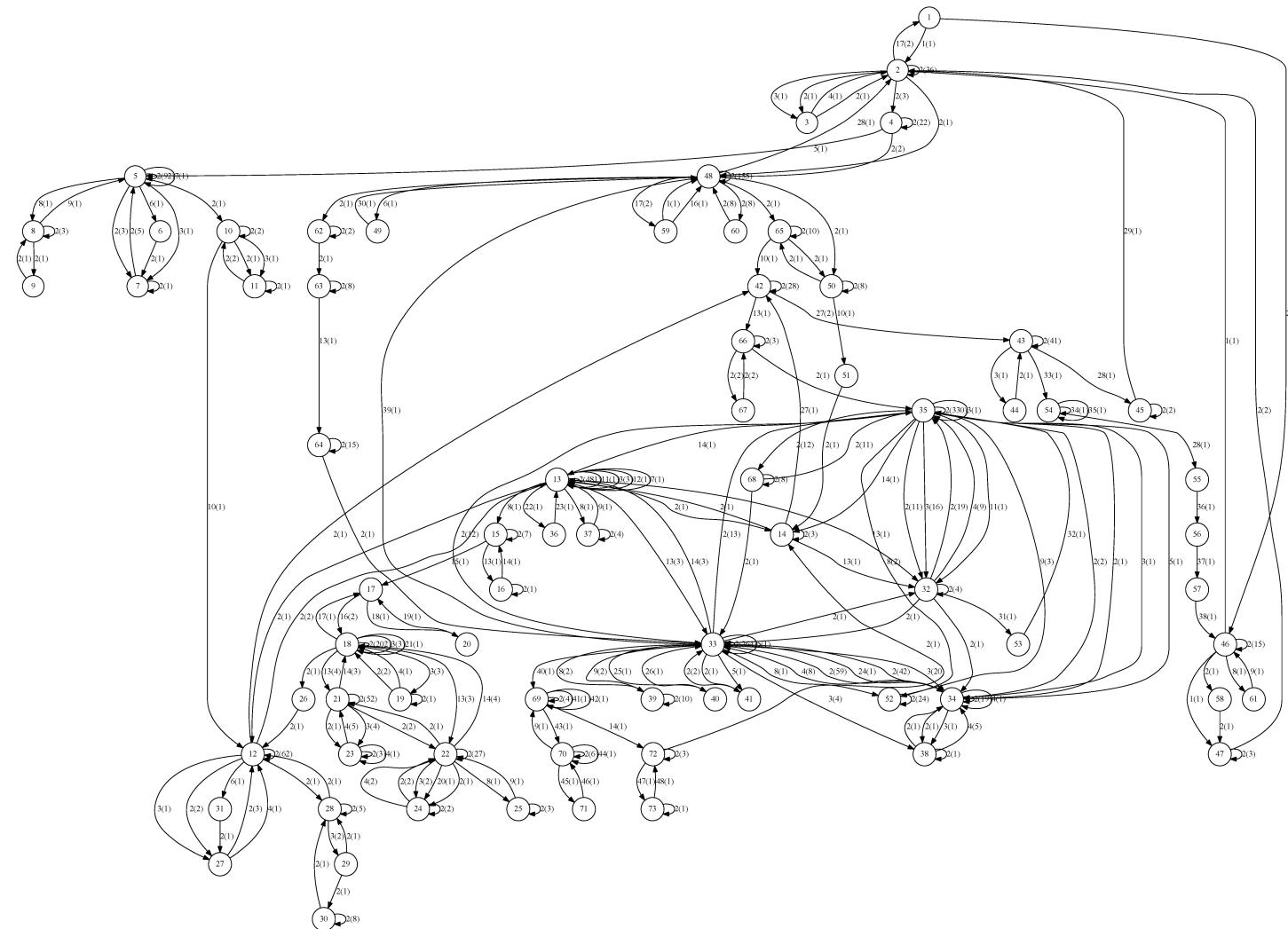
# Time Series and State Maps



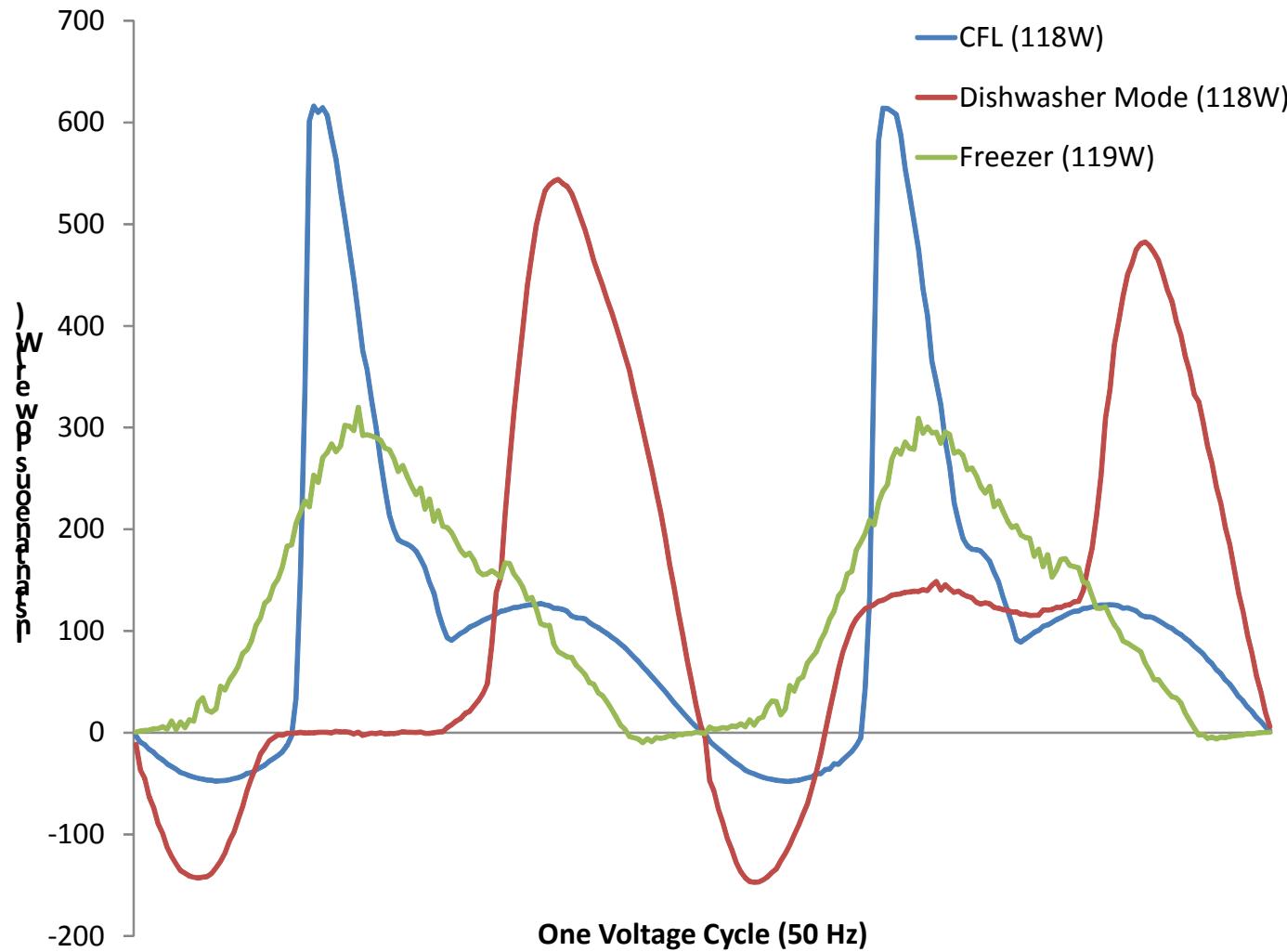
# Learn Appliances One by One



# State Diagrams can Get Complex

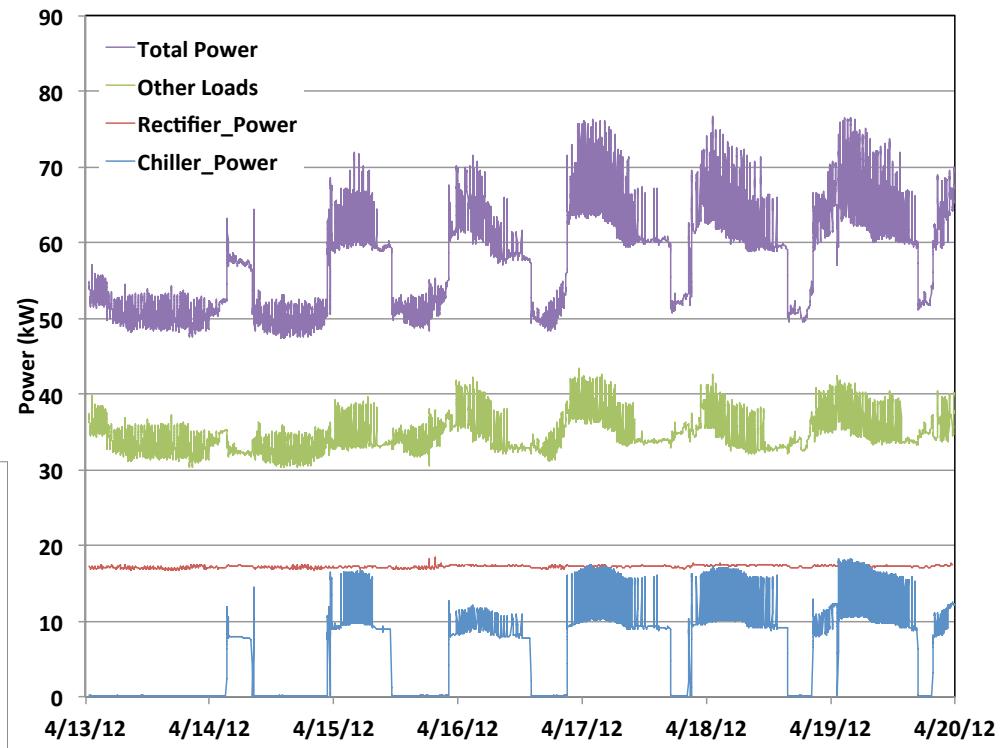
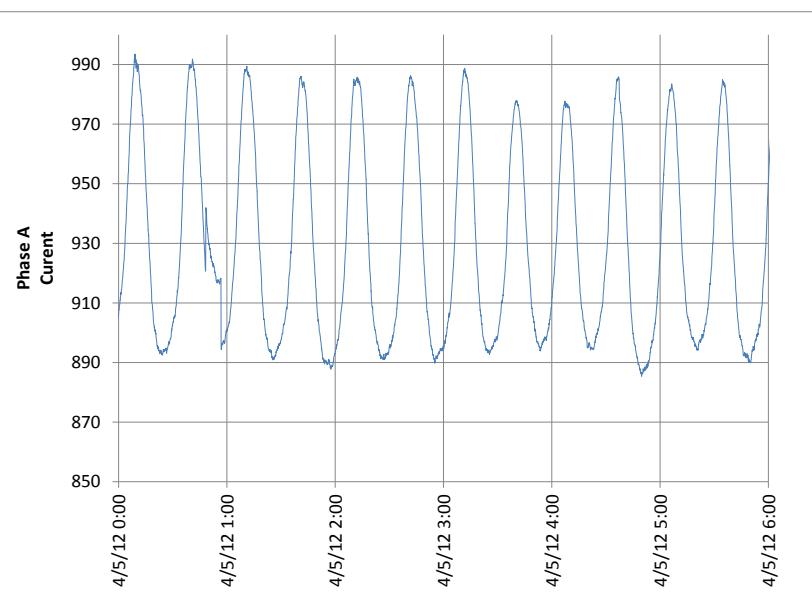


# Real Power Lacks Important Detail

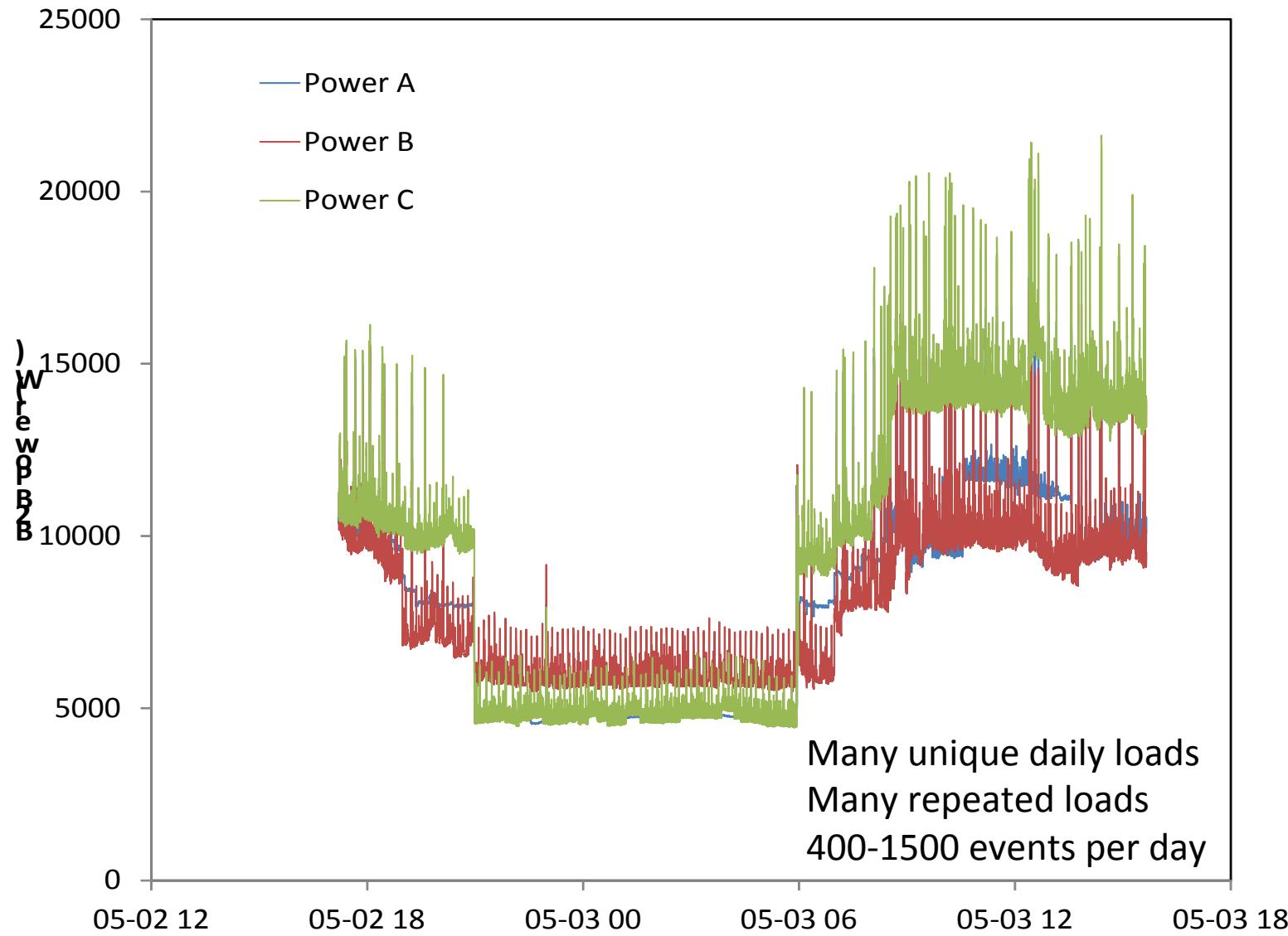


# Next Hurdles (Telephone Central Office)

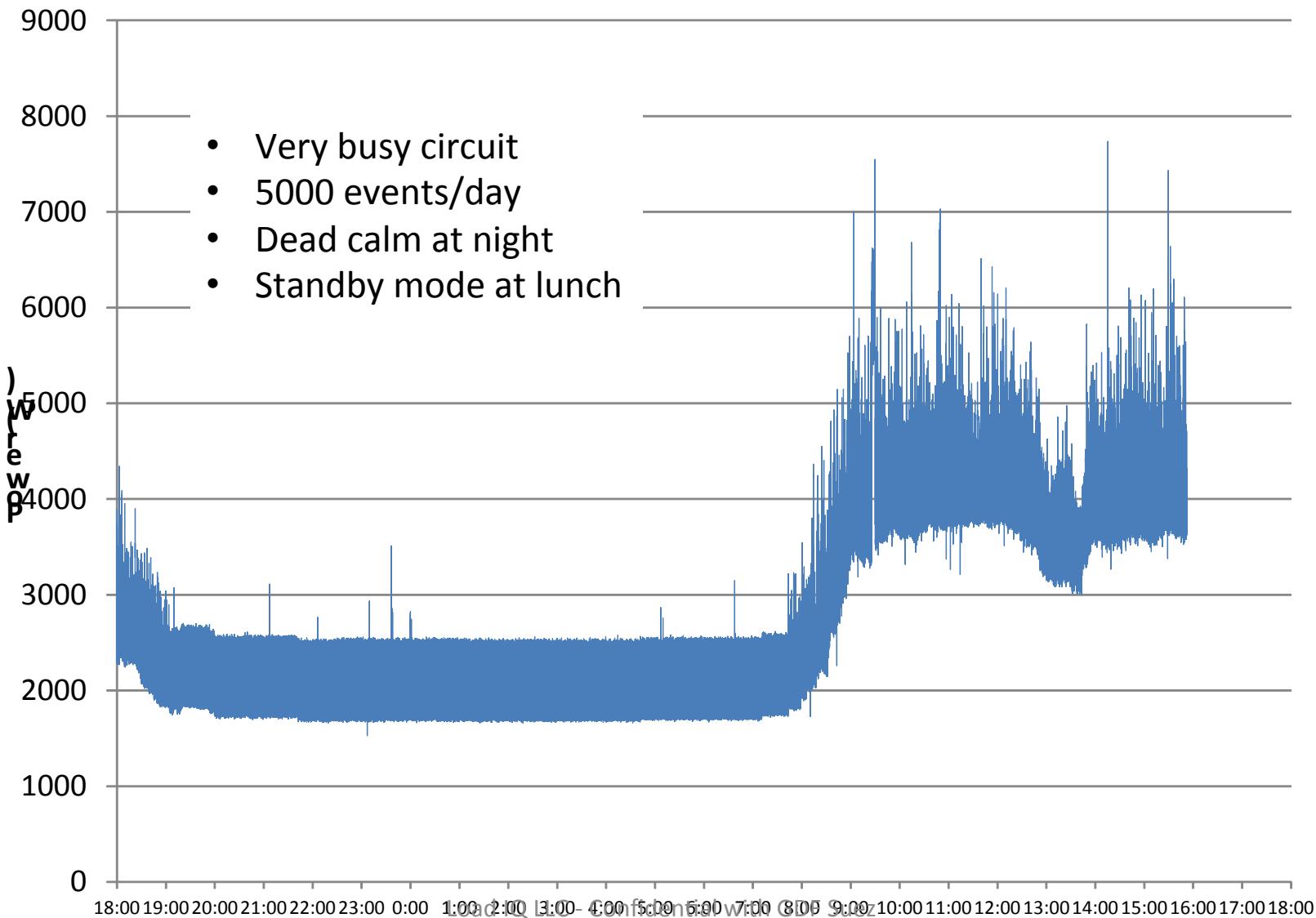
- Always on
- Labeling
- Mysterious Loads



# 50 Desk Office Building



# Computers in Office Building



# Thank you - Questions

