

An Integrated and Cognitive Home Energy Management System

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Project Objectives

GOAL: *Develop an Intelligent Residential Management System that will:*

- Give the utility the ability to predict and tailor the electricity demand in multiple dwelling units simultaneously in a given residential community by:
 - providing suitable incentives to customers, and
 - scheduling and controlling appliance operation.
- Make decisions for customers in feeding the excess solar power to electricity grid through 'net metering' scheme.
- Possess seamless information flow at the customer end to control various home appliances, lighting, HVAC system and water heater, either remotely or locally on the *Master Controller*.

Dynamic Appliance Scheduling

