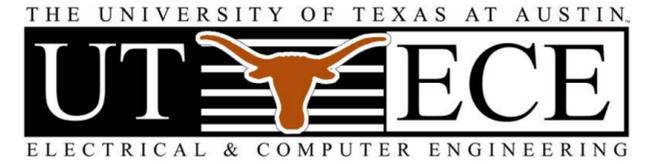
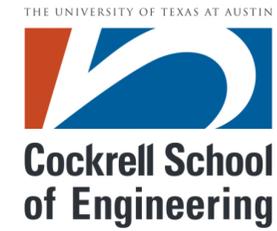


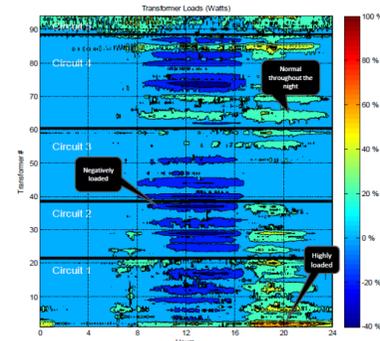
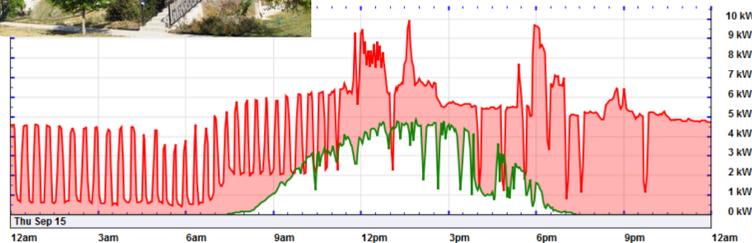


Smart Grid Research



- Selected technologies and studies:

- Disaggregated power consumption data from 1000 homes at 15 second intervals.
- 25 % PV power penetration.
- More than 100 electric vehicles within 1 sq. mile.
- Residential and community level energy storage.

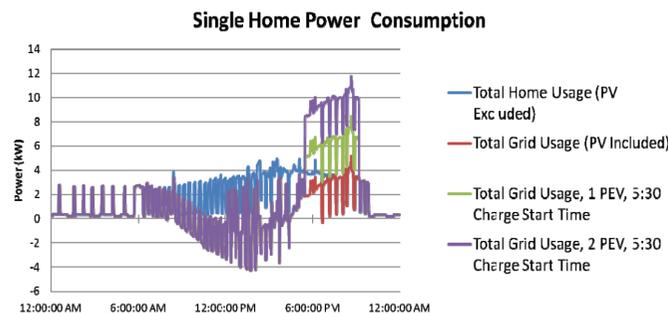
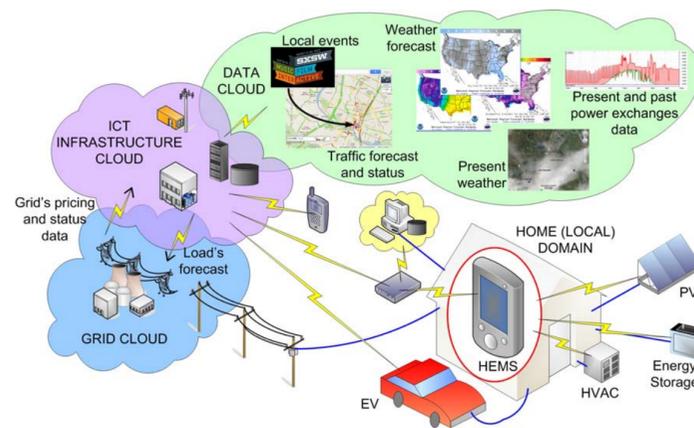
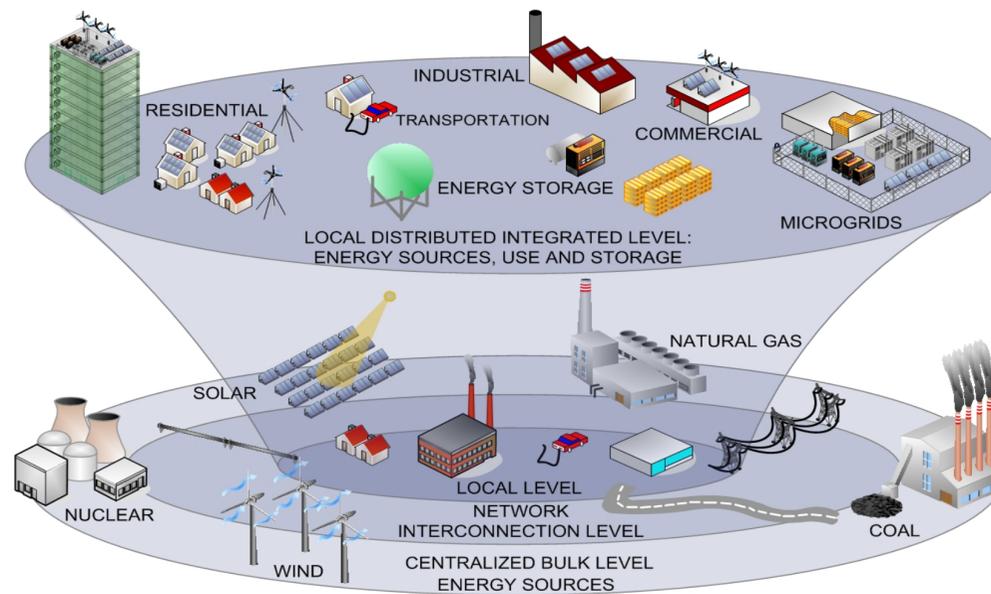


- Modeling efforts:

- Effect of EV charging on distribution transformers.
- Effect of high PV and EV penetration on electric grid.
- Relationship between diverse PV deployment and energy storage.

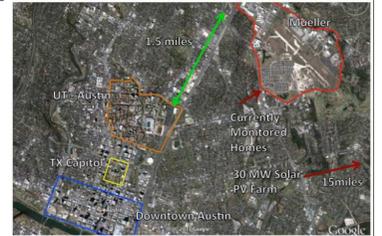


PECAN STREET: A CUSTOMER-CENTRIC VIEW OF A SMART GRID



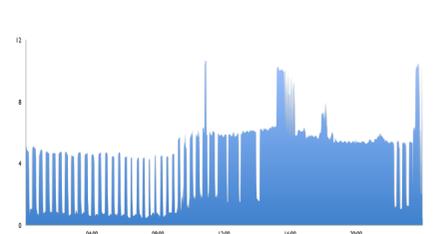
- Pecan Street Mueller area smart grid demonstration project:

- A real-life test bed within 2 miles from The University of Texas at Austin main campus.



- Residential-level research

- EV charge management.
- Data time resolution
- Interoperability.
- HEMS operation - energy management strategies
- Pricing strategies.
- Load pattern recognition
- Optimal PV orientation.



- Data storage, processing and analysis