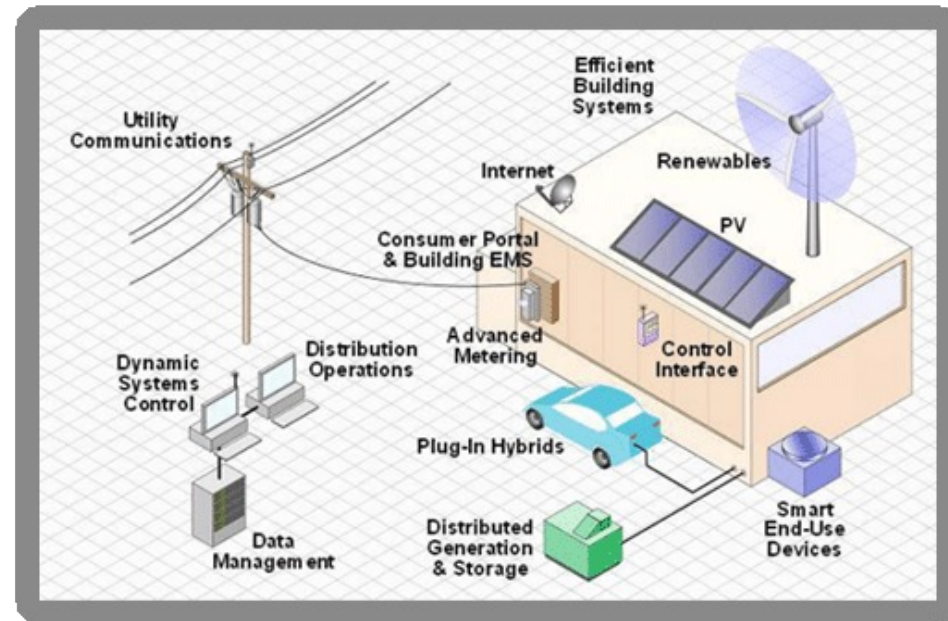
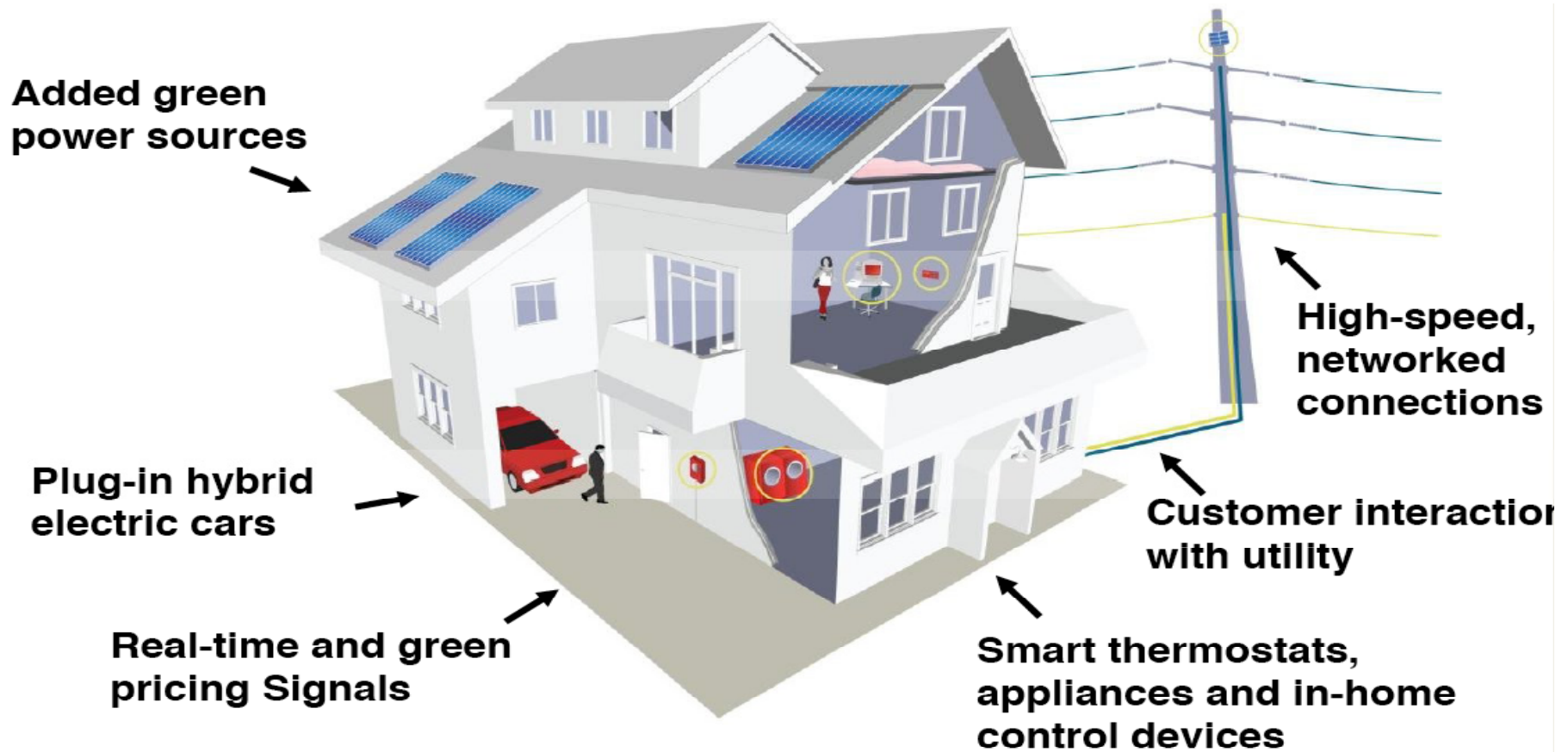


What is Meant by “Smart Grid”?

- Smart Grid is a system that uses various technologies to enhance power delivery and use through **intelligent two-way communication**.
- **Power generators, suppliers and end-users** are all part of the equation.
- With increased communication and information, Smart Grid can monitor activities in **real time**, exchange data about **supply and demand** and adjust power use to changing load requirements.
- Empowers customers to choose to control their energy usage
 - Smart meters
 - Home/building/industrial energy management/control systems
 - User information interfaces and support tools



The End-user is the center piece of the Smart Grid



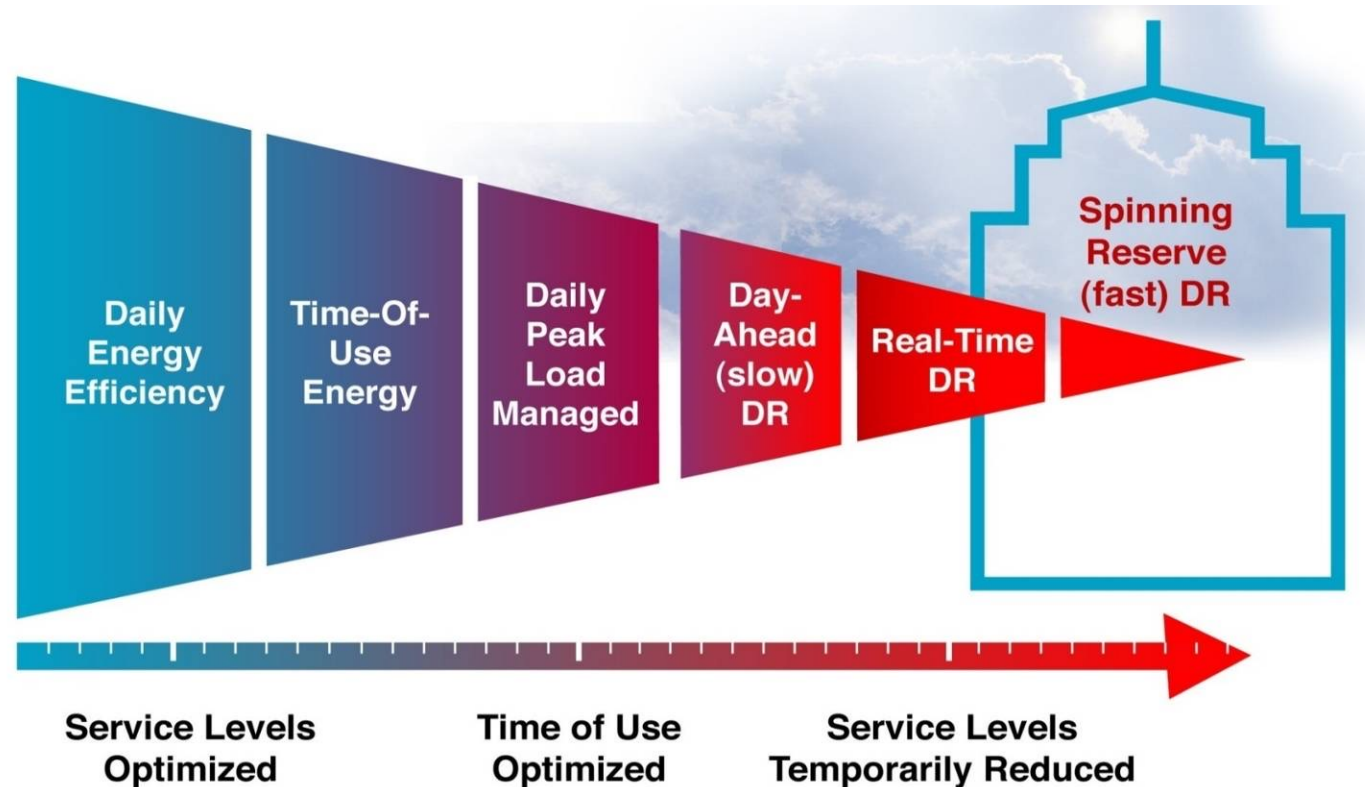
Demand Response and Smart Grid

- DR is the primary demand side resource of the Smart Grid
- Smart Grid provides the capability to better utilize DR
- Smart Grid allows utilities to harness other benefits (ancillary services, etc) of DR
- Smart Grid gives operators increased confidence in DR as a resource due to greater visibility

Demand Response and Energy Efficiency

- Energy efficiency provides ongoing energy savings (usually enabled by technology); DR provides event-driven demand load shaping
- Energy savings that occur during hours of peak demand can contribute to demand savings
- More analysis needed to substantiate if DR provides efficiency savings
- People who participate in EE are generally more likely to participate in DR and vice-versa
- Best practices for program marketing, especially towards residential customers, addresses EE and DR simultaneously

Role of Demand Response in Electric Power Systems



Demand Response Research Center, "Demand Response Best Practices, Design Guidelines and Standards, Work Papers", presentation to California Public Utilities Commission, December 2008.

BEST Center Curricula, Resources & Recordings

Academic Programs

Georgia Piedmont Technical College - Building Automation Systems

Milwaukee Area Technical College - Sustainable Facilities Operations

Laney College - Commercial HVAC Systems

City College San Francisco - Commercial Building Energy Analysis & Audits

Professional Development Materials, Presentations & Videos

National Institutes

Building Automation Systems Instructor Workshops

Webinars (e.g., BEST Talks)

Faculty Profile Videos

Reports & Case Studies

Marketing Resources

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