Technology	Residential energy management	Commercial peak-load reduction (typ. min. 100 MW)	Load Curtailment & shifting	
			Energy suppliers	TSO
Metering and Communication				
Advanced meters, including Sub-meters	X			
Interval meters		X		
Energy information systems – involving meters, sub-meters		X		
Automated Meter Reading (AMR)			X	
Gateways (for pulse output of utility meter) and specialized analytical software (either licensed or via vendor ASP services).		X		
Highly integrated approaches for event notification				X
Expanded use of broadband technologies for automated load control.			X	
Energy Management				
Whole house energy systems	X			
Energy management systems		X		
Smart thermostats	X			
Financial incentive payments for business Customers to install energy efficiency equipments & upgrades (typically – lighting, HAVC, motors & energy storage devices)			X	
Geothermal heat pumps			X	
Incentives for permanent demand reduction efforts		X		
Standard performance contracting programs			X	
Generation of electricity				
Dispatchable emergency generators		X		X
Combined heat and power generation applications (CHP)			X	
Wind and photovoltaic supplement systems			X	
Load Control				
Direct load control of air conditioners and water Heaters	X			
Cycling of commercial air conditioners		X		
Ice storage & bldg. thermal storage		X		
Load curtailment –shifting		X		
Large customer interruptible programs			X	
Voluntary and mandatory load reduction programs			X	
Demand buy-back programs			X	
Regional black-out reduction programs			X	
Reserve capacity programs with incentives for large customers to curtail load or operate onsite generation during electricity reserve shortages.				X
Day ahead demand response programs which give larger customers the opportunity to bid load reductions into a regional market's day-ahead wholesale electricity market – Note: In some day ahead programs running standby generators is not				X

permissible				
Systems implementation and control strategies via new systems				**X**
Verification of Load Control				
Load control and load reduction verification				**X**
Verification through load profiling and sample-based spot metering applications				**X**
Marketing and Education				
Highly integrated approaches to the marketing of demand response programs				**X**
Technical & educational assistance	**X**			

An energy provider and system operator demand response "toolkit" consists of:

- Automated meter reading (AMR) equipment
- AMR software
- Load curtailment management system software
- Meter verification editing & estimation systems
- Settlement systems
- Advanced billing systems
- Load information systems
- Load profiling systems
- Distribution & transmission load planning tools
- Next day forecasting tools
- Customer demand response forecasting tools

There are five basic components of any successful demand response program:

1. Notification
2. Real-time/non-real-time metering
3. Compliance of performance
4. Baseline calculation
5. Settlement