

## Ramp Rates for 7<sup>th</sup> Plan

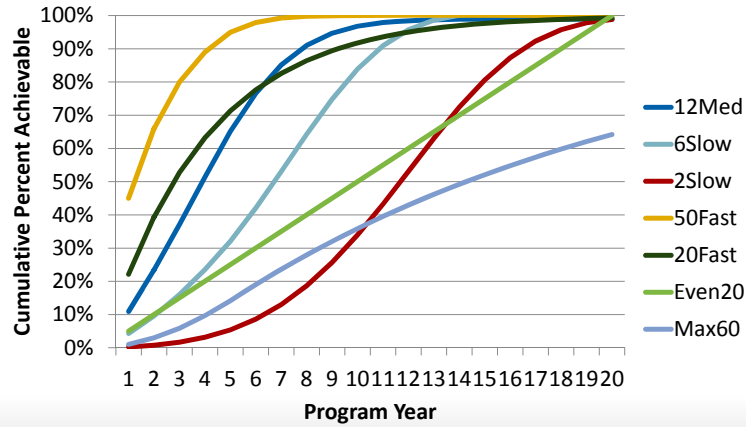
Conservation Resources Advisory  
Committee

January 28, 2015

## Ramp Rates

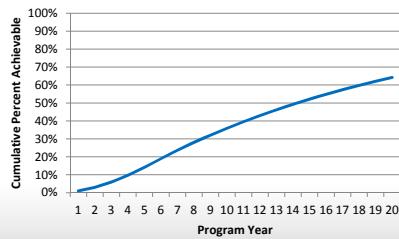
- Used to determine max pace of acquisition in conjunction with annual unit count
- Now based on program year
  - Depends on when cost bundle is selected
  - *Not* equal to plan year
- For 7P, aligned retrofit and lost opportunity to single set of seven
- Achievability fraction (85%) applied on top of ramp rate

# Suite of Ramp Rates



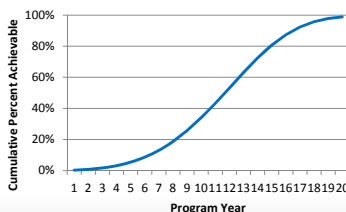
# Max 60

Sector	Lost Opportunity Measures	Retrofit Measures
Residential	Heat Pump Clothes Dryers	Solar Water Heater
Commercial	None	None
Industrial	None	None
Agriculture	None	None



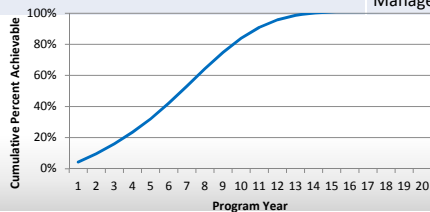
## 2 Slow

Sector	Lost Opportunity Measures	Retrofit Measures
<b>Residential</b>	Clothes Washers, GFHX, Refrigerator, Freezers	None
<b>Commercial</b>	Low Pressure Distribution System, Ultra Low Energy Buildings, Refrigerators and Freezers	Interior Glazing
<b>Industrial</b>	None	None
<b>Agriculture</b>	None	Irrigation Pressure Reduction



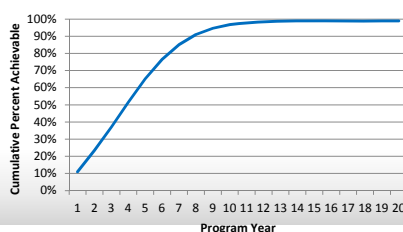
## 6 Slow

Sector	Lost Opportunity Measures	Retrofit Measures
<b>Residential</b>	Heat Pump Water Heaters, Air Source Heat Pump Conversion/Upgrade, Ductless Heat Pump Conversion, DHP with furnace, Controls Commissioning & Sizing	Behavior/COP, Aerator
<b>Commercial</b>	Rooftop Controller, VRF, Computer Servers, Cooking Equipment, Perimeter Daylighting Controls, Lighting Controls Interior	Rooftop Controller, Data Centers, Luminaire Level Lighting Controls, Water Cooler Controls
<b>Industrial</b>	None	Energy Management, Air Compressors, Lighting, Motors Rewind, Process Improvements
<b>Agriculture</b>	None	Dairy Efficiency, Irrigation Water Management



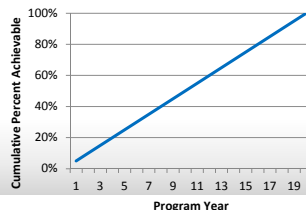
# 12 Med

Sector	Lost Opportunity Measures	Retrofit Measures
<b>Residential</b>	Dishwasher, Electric Vehicle Level II Charger, Microwave	Duct Sealing, WIFI enabled thermostats, Advanced Power Strips, Weatherization
<b>Commercial</b>	Interior Lighting, Top Daylighting	Smart Plug Power Strips, Energy Management, Interior Lighting, Chiller Retrofits
<b>Industrial</b>	None	Air Compressor Energy Management, Process Improvements, Cold/Food Storage Tune-Ups
<b>Agriculture</b>	None	Irrigation Hardware, Irrigation Motor Rewind



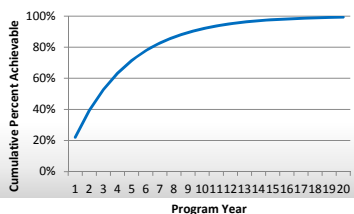
# Even 20

Sector	Lost Opportunity Measures	Retrofit Measures
<b>Residential</b>	None	None
<b>Commercial</b>	DCV, ECM on VAV, Motors Rewind, Packaged Refrigeration Equipment, Commercial Clothes Washers	Compressed Air, DCV, Schools Weatherization, Grocery Refrigeration, Efficient Tank Water Heating, Switched Reluctance/Permanent Magnet Motors
<b>Industrial</b>	None	Fans, Pumps, Process Improvements, Pulp & Paper
<b>Agriculture</b>	None	None
<b>Distribution Efficiency</b>	All	All



# 20 Fast

Sector	Lost Opportunity Measures	Retrofit Measures
<b>Residential</b>	Lighting, Oven	Showerhead
<b>Commercial</b>	Pre-Rinse Spray Valve, Premium Fume Hood, Exterior Building Lighting, Premium HVAC Equipment	DCV Restaurant Hood, DCV Parking Garage, Sewage Treatment, Water Supply, Clothes Washers, Showerheads
<b>Industrial</b>	None	None
<b>Agriculture</b>	None	Area Lighting



# 50 Fast

Sector	Lost Opportunity Measures	Retrofit Measures
<b>Residential</b>	Computers, Monitors	None
<b>Commercial</b>	Computers, Monitors, Variable Speed Chiller, Street Lighting, Parking Lighting	None
<b>Industrial</b>	None	None
<b>Agriculture</b>	None	None

