# California Climate Program

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**California**

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**Greenhouse Gas Emission Trading**
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# Brief History of California's Climate Activities

- Energy Efficiency Portfolio (decoupled)
- Greenhouse Gas Emissions Inventory (1990)
- California Climate Action Registry (2000)
- Vehicle Emissions Law and Regs (2002/2004)
- Renewable Portfolio Standard (2002/2006)
- Emission Targets in Executive Order (2005)
- Climate Action Team Report (2006)
- **Climate Legislation – AB 32 (2006)**
- Solar Initiative – SB 1 (2006)

# Brief History of California's Climate Activities (Continued)

- Power Plant Legislation – SB 1368 (2006)
- Western Climate Initiative (2007-present)
- Mandatory Emissions Reporting (2008, 2010)
- **Scoping Plan (2008-present)**
- Regional Transportation Targets – SB 375 (2008-present)
- Renewable Portfolio Standard (2010, 2011)

# Brief History of California's Climate Activities (Continued)

- Pavley clean car standards
- Low carbon fuel standard
- Ship electrification
- Port trucks
- Consumer products
- Landfill methane control
- Industrial audits
- Refrigerant Mgt
- 33% renewable electricity standard
- Regional transportation targets
- Efficient trucks
- Car air conditioners
- Sulfur hexafluoride (including electric sector)
- Semiconductor manufacturing
- Tire inflation

# What is at Stake for California?

- Water Resources
- Public Health and Air Quality
- Coastline and Ocean Resources
- Agriculture and Forestry
- Hydroelectric Power
- Wildfires

- Impacts of Climate Change on California's Public Health, Infrastructure and Natural Resources (http://www.climatechange.ca.gov/publications/cat/index.html)

# Balance of Approaches to Mitigation

- **Near Term:**
  - **2020 emissions target:  1990 levels**
  - **Focus on "traditional approaches" to emission reductions**
  - **Initiate emissions pricing**
- **Long Term:**
  - **Emissions reductions to avoid dangerous anthropogenic interference with the climate system**
  - **Maintain emissions pricing**

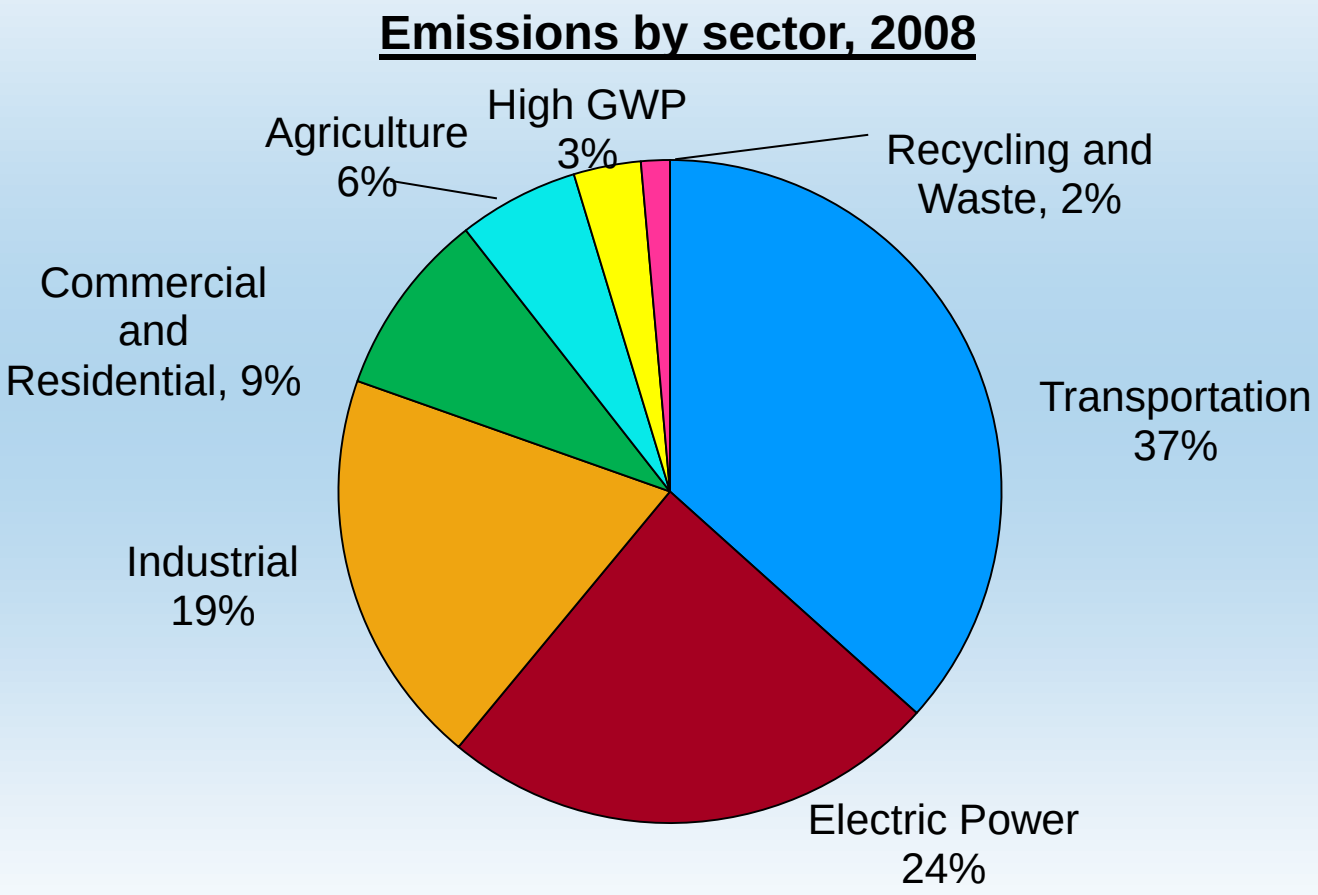
# Cap and Trade Design Elements

- High-quality emissions data
- Define an emissions limit and establish a budget of “emission allowances”
- Electricity sector: Uniform treatment of in-state and imported generation
- Limited use of high-quality offsets
- Open and fair auctions
- Effective market oversight
- Western Climate Initiative

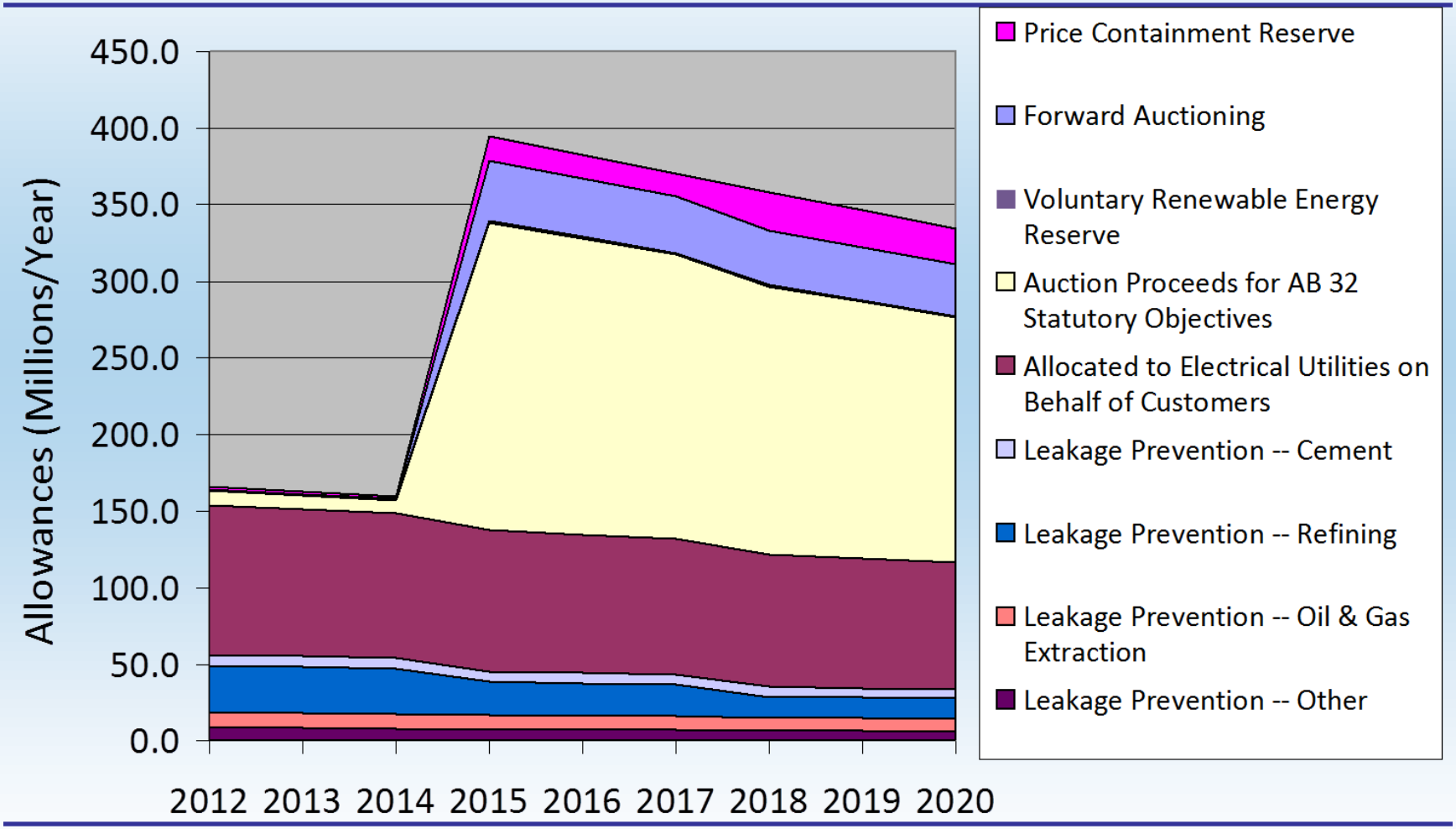
# Covered Sources

- **2013-2014**
  - **In-State Electricity Generation Facilities (>25,000 MT $CO_2$e/year) and Imported Electricity**
  - **Large Industrial Facilities (>25,000 MT $CO_2$e/year)**
- **2015-2020**
  - **Adds 'upstream' treatment of fuel combustion where fuel enters into commerce covering**
    - Small industrial fuel use (for facilities < 25,000 MT $CO_2$e/year)
    - Residential and commercial fuel use
    - Transportation fuel use

# Recent Emissions in California

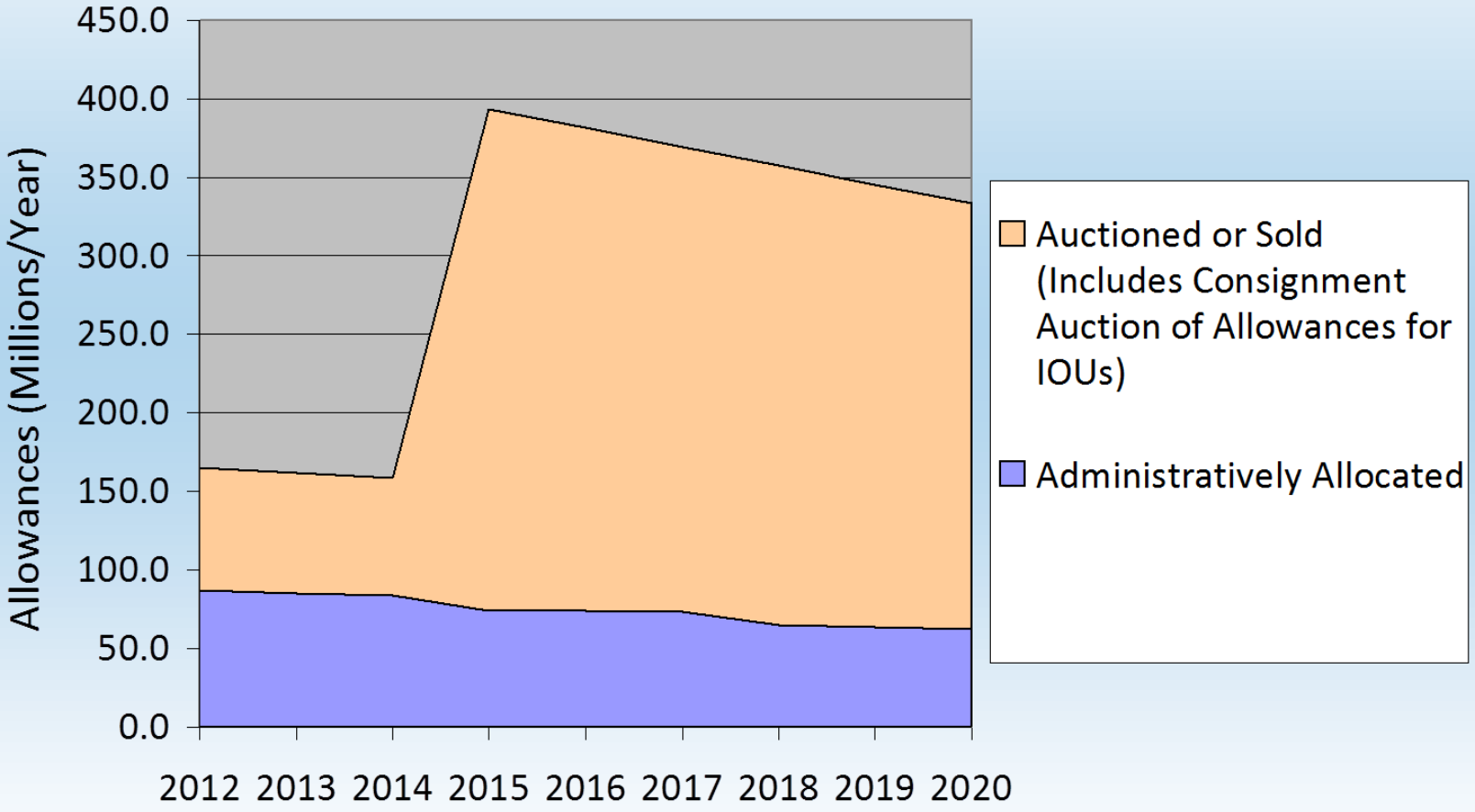


# Allowance Budget and Allocation




* Allowance budget revised to start in 2013

# Auction vs. Free Allocation

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# The “Carbon Market”

- Administrative allocation
- Auction
- Holdings recorded in the tracking system
- Trading of emission allowances and offsets:  private parties and exchanges
- Creation and trading of “derivative products”

# Benefits of a Regional or National Approach to Cap and Trade

- Greater emissions benefit than a single-state approach to a global problem
- Harmonization across boundaries reduces potential for emissions "leakage" and supports jobs retention
- Broader carbon market increases opportunities for lower-cost reductions
- Increased leverage for national and international climate action

# For Additional Information

- **ARB Climate Change Web Site:**
  **www.arb.ca.gov/cc/cc.htm**
- **California Climate Change Portal:**
  **www.climatechange.ca.gov**