AB 341 California’s Commercial Recycling Bill: Understanding and Compliance

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Founder, Executive Director
Definition of AB 341

STATE MANDATE

EFFECTIVE 7/1/2012

4 cubic yards of SOLID waste weekly
Purpose

To reduce GHG emissions by diverting commercial solid waste to recycling efforts...

and

To expand the opportunity for additional recycling services and recycling manufacturing facilities in California.
Goal of AB 341

• Jurisdictions Are Responsible

• Minimum 50:50 mix (AB 939)
  – Trash : Recycle bins

• 75% Diverted by 2020

Reduce, Recycle, ReUse, Compost
## What Is Solid Waste?

### Sources of Waste:
- Commercial
- Construction
- Industrial
- Residential

### Types of Waste:
- **Durables**
  - Paper
  - Glass
  - Plastic
  - Metal
  - Wood

- **Consumables**
  - Organics

- **Construction/Demolition**
Solid Waste: Business Ratios

- Paper, cardboard, 51%
- Organics, 25%
- Plastic, 12%
- Building Material, 8%
- Glass, 2%
- Other, 2%
How Waste Is Tracked & Reported

Unincorporated areas/cities > COUNTY
   – Haulers Report to County > CalRecycle

• Incorporated City > CITY
   – Haulers report to City > CalRecycle
Jurisdiction Responsibility

- Education
- Outreach
- Tracking
- Enforcement
- Report to Cal Recycle
San Diego County

**COUNTY** sets guidelines for compliance
- Gets list of **noncompliant** customers from Hauler
- Sends a letter to customer to “educate” them
- Sends **warning** citation - Lists steps to take
- Option to fine $100 - $500 for each infraction
  - Up to $10,000 per year
City of San Diego

• Gets detailed reports from haulers
  – Facility name, address, person(s) name, volume of solid waste and recyclable materials/week, Frequency of collection service
• Requires 50% diversion rate
• Achieve compliance through education and technical assistance
• Noncompliant customers face fine
• Cities face fines up to $10,000/day
Ed Pletner

Founder, CEO
AVR Recycling
Why Electronic Waste Matters

- Electronic Waste (eWaste) is defined as all discarded electrical and electronic devices.
- As of 2009 only 25% of eWaste was recycled.
- eWaste makes up approximately 5% of the municipal waste stream while accounting for 70% of all toxic waste (Mercury, Lead, etc.).
- eWaste is growing 3x faster than all other municipal waste.
Commodity Prices and Recycling

Over the past 10 years the value of commodities such as Gold (285%), Silver (398%), Copper (333%), and Lead (373%) have risen dramatically.
Computers

- Motherboard (Gold)
- Power Supply (Copper)
- CD/DVD/Floppy Drive (Gold)
- Hard Drive (Gold, Aluminum)
- Video Card (Gold)
- Processor (Gold)
- Memory (Gold)
Medical Device Client

- Client that requires recycling of a device containing circuit board, aluminum, motor, plastic, silicon, rubber, and more

- Use the value of the circuit board to dramatically decrease the cost of recycling

- Takeaway: Using the right Recycler can substantially impact the cost of disposing your recyclables and can facilitate proper diversion of other materials (AB 341)
Ravi Bajaj, LEED AP BD+C, O+M

Project Coordinator
San Diego Green Building Council
Materials & Resources in LEED

- Purchasing
- Waste
Practice waste reduction strategies

WASTE

- Reduce waste at its source
- Practice waste reduction strategies
- Reuse and recycle

PURCHASING

- Reduce mercury pollution
- Select sustainable materials
Sustainable Purchasing Policy

Reduce the environmental impacts of materials acquired for use in the operations, maintenance and upgrades of buildings.
Implement environmentally preferable purchasing (EPP) policy that addresses requirements of Sustainable Purchasing—Ongoing Consumables.

Include at least one of other related purchasing credits:
- Sustainable Purchasing—Durable Goods
- Sustainable Purchasing—Facility Alterations and Additions
- Sustainable Purchasing—Reduced Mercury in Lamps
Solid Waste Management Policy

Facilitate the reduction of waste generated by building occupants that is hauled to and disposed of in landfills or incineration facilities.
Solid Waste Management Policy

Implement solid waste management policy that addresses waste management of:

• Ongoing consumables
• Batteries
• Durable goods
• Facility alterations and additions
• Mercury-containing lamps
Policy Model

• SCOPE
• PERFORMANCE METRIC
• GOALS
• PROCEDURES & STRATEGIES
• RESPONSIBLE PARTY
• TIME PERIOD
Facilitate the reduction of ongoing waste and toxins that are hauled to and disposed of in landfills or incineration facilities.
Conduct waste stream audit of building’s waste stream for both:

• Recycling
• Conventional waste

Use audit’s results to establish baseline and identify opportunities for increased recycling and waste diversion.
Electronic Waste

- **Computers** (including desktop PCs, laptops, tablets, and netbooks): 60% trashed
  - 1.24 million tons were trashed over this 5-year period.

- **Computer Monitors** (flat panel and cathode ray tube): 67%
  - 2.35 million tons of monitors were trashed.

- **Hard-Copy Devices** (printers, fax machines, scanners, digital copiers): 67%

- **Televisions** (flat panel, projection, cathode ray tube, black and white): 83%
  - 3.96 million tons

- **Keyboards, Mice**: 90%
  - 0.34 million tons

- **Handheld Wireless Telephones** (cellphones, personal digital assistants, smartphones, pagers): 89%
  - 85 thousand tons
John Ritter, CFM, SFP

Facilities Operations Manager
SDG&E
SDG&E Recycle Program

- Overview of SDG&E Recycling Program
- Containers
- Signage
- Employee Engagement
- Reporting
- Office Waste Program Results
- Lessons Learned
Recycling Program Overview

- Exceed City of San Diego Standards
- Field Operations
  - Metal, copper, wire, wood
- Fleet
  - Tires, belts, filters, oil, anti-freeze, plastics
- Facilities
  - Cardboard, paper, aluminum, glass, plastic, metal, food
- Supply Management
  - Shredded confidential paper, Investment Recovery
- Company Policies
  - Sustainable Purchasing, Solid Waste Management

SUPPLY MANAGEMENT

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>Sustainable Purchasing Policy</th>
<th>EFFECTIVE: 06/01/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLICY APPLICATION:</td>
<td>SDG&amp;E and SoCalGas</td>
<td></td>
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<tr>
<td>POLICY OFFICER:</td>
<td>Pam Ford, VP Envtl &amp; Op Support</td>
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<td>POLICY QUESTIONS:</td>
<td>Supply Manager - Supply Chain Manager</td>
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<tr>
<td>ETHICAL CONCERNS:</td>
<td>Ethics and Compliance Helpline</td>
<td></td>
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</table>

PURPOSE:
San Diego Gas & Electric (SDG&E) and Southern California Gas (SCG) intend to purchase materials in a manner that will protect the environment and public health, conserve natural resources, and minimize waste. Ideally we aspire to do this for the majority of the goods and services we purchase, but for management purposes the policy applies to the following specific products that are within the building and site management’s control.

SCOPE:
This environmentally preferable purchasing policy applies to purchases made for all SDG&E and SCG facilities and covers the following specific products and materials:
- Ongoing consumables - office supplies: paper, notebooks, notepads, envelopes, toner cartridges, binders, batteries, and desk accessories
- Ongoing supplies: office supplies - office & facility related equipment: office equipment (computers, monitors, plotters, printers, multi-function printers), appliances (refrigerators, washers, water coolers), external power additions, and televisions
- Ongoing supplies: furniture - desks, tables, chairs, bookcases, shelves, and cabinets

Nothing contained in this policy shall be construed as requiring SDG&E or SCG to procure products that do not perform adequately for their intended way, are not available at a reasonable price in a reasonable period of time. SDG&E and SCG intend to consider the environment in their purchasing decisions of these materials but nothing in this policy guarantees performance to the goals stated below.

POLICY:
Sustainable Purchasing of Ongoing Consumables

The term "ongoing consumables" refers to low-cost, per-unit materials that are regularly used and replaced through the course of daily business operations. These products may include, but are not limited to, the following office supplies: paper, notebooks, notepads, envelopes, toner cartridges, binders, batteries, and desk accessories. SDG&E and SCG have established a goal for the purchase of "ongoing consumables" of at least 60% of the cost of goods purchased will comply with one or more of the following sustainable criteria:
- Contains at least 50% materials harvested and extracted and processed within 500 miles of the facility
- Contains at least 10% post-consumer and/or 25% post-industrial material
- Contains at least 50% rapidly renewable material (e.g., bamboo, rubber, cork, wool)
Office Recycle Containers
Field Recycle Bins
To San Diego Gas & Electric Employees:

A City of San Diego Ordinance (9-2008-30) requires all businesses and residences (including apartments and condominiums) to recycle. San Diego Gas & Electric must comply with the ordinance, and has expanded the recycling program for our employees.

In addition to providing recycling containers in common areas, conference rooms, and break rooms new exterior recycle containers are located at most building entrance/exits and wherever regular waste containers are located. Containers are emptied twice a week or as required. The containers are well marked with recycling signage.

Please recycle the following items and remove all food and liquid inside containers before disposing in the recycling bins.

Cardboard & Food Packaging: Flatten or cut boxes. Recycle cereal boxes and other clean food packaging including cans boxes, flour bags, frozen dinner boxes, paper egg cartons, paper grocery bags, shoe boxes, paper gift wrap, calendars, core tubes from paper and toilet rolls, soda/beer/12 pack carrying boxes, pizza boxes (foil side), etc.

Mixed Paper: Recycle all clean and dry paper including: writing paper (all colors), computer paper, Xerox paper, “no carbon required” NCR forms, catalogs, brochures, magazines, junk mail, phone books, newspaper, post-it type notes, and shredded paper (place in a separate paper bag).

Glass bottles & Jars: Recycle all food and beverage containers—clear and colored glass. No need to remove labels.

Cans: Recycle aluminum cans and steel cans—including clean & dry paint cans, food product cans, empty aerosol cans, dog & cat food cans.

Aluminum Foil: no foil or food attached.

Plastic Containers: Recycle plastic bottles, jugs and jars marked with and all beverage containers labeled “CA redemption value” or “GA Cash Return” including:
- Food & Beverage Containers — Milk jugs, jugs, soda, water, salad dressings, cooking oils, etc.
- Clean Plastic Food Packaging — No composite plastics or PLA, Styrofoam, plastic film, bags or utensils.
- Plastic Buckets, Tubs, Pots & Toys
- Jars & Containers — Peanut butter jars, mayonnaise jars, asparagus, 35mm film canisters, etc.
- Cleaning Products & Detergents — bleach, detergent, soap, shampoo, drain cleaner, etc.
- Automotive & Yard Care Products — EMPTY motor oil, antifreeze, plant food, herbicide containers, etc.

Do not place trash or any other items not listed above inside the recycling containers. If a recycling dumpster is contaminated with trash, the program could be jeopardized and the complex might be charged a higher fee for the disposal of that load. Note: Plastic grocery bags/newspaper delivery bags should not be placed in recycle containers but can be recycled at your local grocery store.

Remember, by recycling more you will not only help the local environment but also the global environment. Recycling saves resources and energy, reduces pollution and greenhouse gas emissions, and creates jobs.

If you have any questions about the recycling program, you may contact your Facilities Manager or send an email to: SDGERecycling@SempraEnergy.com. Recycling information is posted on bulletin boards and also available on the Company Intranet or the Real Estate & Facilities website.

San Diego Gas & Electric is happy to be able to offer this program to our employees and help make the environment in San Diego a cleaner place. Thank you for recycling; let’s not waste a good thing!

Facilities Sustainable Programs

Posted: June 2011 — Please Do Not Remove

Thank you for helping us to reduce our environmental impact!
Employee Engagement

- Earth Day event
- Clear the Clutter
- E-Waste event
- “We Recycle” competition
Employee Engagement

Recycle Material Bags
### Diversion by Weight (Tons)

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Total Discards</th>
<th>Total Waste</th>
<th>Total Diverted</th>
<th>Diversion %</th>
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<tbody>
<tr>
<td>Beach Cities Base/C&amp;O</td>
<td>56.59 T 45.13</td>
<td>29.47</td>
<td>2596.00</td>
<td>969.92</td>
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<tr>
<td>Century Park</td>
<td>99.48</td>
<td>212</td>
<td>1299.00</td>
<td>259.80</td>
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<td>Greencraig-Meter Reading</td>
<td>5.77</td>
<td>4.47</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>H&amp;O Sempra HO</td>
<td>60.80</td>
<td>44.69</td>
<td>19.87</td>
<td>33%</td>
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<tr>
<td>Kearny Elect Maint Ops</td>
<td>96.98</td>
<td>63.99</td>
<td>32.99</td>
<td>34%</td>
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<tr>
<td>Metro Base/C&amp;O</td>
<td>49.25</td>
<td>29.38</td>
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<tr>
<td>Mission Telecom</td>
<td>10.24</td>
<td>8.94</td>
<td>1.30</td>
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<tr>
<td>Orange County SVC Center</td>
<td>3.53</td>
<td>2.23</td>
<td>1.30</td>
<td>13%</td>
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<tr>
<td>SPL Alpine HO</td>
<td>13.27</td>
<td>8.94</td>
<td>4.33</td>
<td>33%</td>
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<tr>
<td>SW Powerlink Upper</td>
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<td>Renewable Energy Resource</td>
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<td>Orange County SVC Center</td>
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<td>2.23</td>
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<tr>
<td>Northeast Base C&amp;O</td>
<td>32.33</td>
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<td>Palomar Power Plant</td>
<td>23.37</td>
<td>19.76</td>
<td>3.61</td>
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<td>Rainbow Gas Compressor</td>
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<tr>
<td>Eastern C&amp;O</td>
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<td>Moreno Valley Compactor 5</td>
<td>8.56</td>
<td>5.96</td>
<td>2.60</td>
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<td>North Coast C&amp;O</td>
<td>59.69</td>
<td>40.35</td>
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<tr>
<td>North Coast-Hilda's Café</td>
<td>2.23</td>
<td>2.23</td>
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<tr>
<td>Palmdale Branch</td>
<td>0.39</td>
<td>0.39</td>
<td>0.00</td>
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<td>Palmdale Branch</td>
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<td>217.83</td>
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<td>Total</td>
<td>721.98</td>
<td>504.14</td>
<td>217.83</td>
<td>30%</td>
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</tbody>
</table>

### Note
Excludes shredded recycled paper, batteries and employees club recycling.
## Detail Reporting

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Front Load Trash Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(2) 4yd 6x [Group 1]</td>
<td>190.52</td>
<td>190.52</td>
<td>190.52</td>
<td>190.52</td>
<td>762.08</td>
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<td>(2) 5yd 5x</td>
<td>216.5</td>
<td>216.5</td>
<td>216.5</td>
<td>216.5</td>
<td>866</td>
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<td>Total Front Load Trash Volume (yards)</td>
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<td>407.02</td>
<td>407.02</td>
<td>407.02</td>
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<td>Total Front Load Trash Weight (tons)</td>
<td>17.50186</td>
<td>17.50186</td>
<td>17.50186</td>
<td>17.50186</td>
<td>70.00744</td>
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<tr>
<td><strong>Front Load Recycling Service</strong></td>
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<tr>
<td>(4) 3yd 3x [Group 2]</td>
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<td>155.88</td>
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<td>(1) 4yd 5x [Group 3]</td>
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<td>86.6</td>
<td>86.6</td>
<td>86.6</td>
<td>346.4</td>
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<td>Total Front Load Recycle Volume (yards)</td>
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<td>242.48</td>
<td>242.48</td>
<td>242.48</td>
<td>969.92</td>
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<td>Total Front Load Recycle Weight (tons)</td>
<td>6.062</td>
<td>6.062</td>
<td>6.062</td>
<td>6.062</td>
<td>24.248</td>
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<td><strong>Roll Off</strong></td>
<td>0</td>
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<tr>
<td><strong>Trash (tons)</strong></td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Greenery Recycling (tons)</strong></td>
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<td><strong>Food Waste</strong></td>
<td>1.26</td>
<td>1.2</td>
<td>1.44</td>
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<td><strong>Cardboard Bales</strong></td>
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<td>0</td>
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<tr>
<td><strong>Total Waste</strong></td>
<td>17.50186</td>
<td>17.50186</td>
<td>17.50186</td>
<td>17.50186</td>
<td>70.00744</td>
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<tr>
<td><strong>Total Recycling</strong></td>
<td>7.322</td>
<td>7.262</td>
<td>7.502</td>
<td>7.382</td>
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<tr>
<td><strong>Diversion (by weight)</strong></td>
<td>29%</td>
<td>29%</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Diversion (by volume)</strong></td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
<td>37%</td>
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</table>
Results

SDG&E Diversion Rate

<table>
<thead>
<tr>
<th>Month</th>
<th>Office Diversion</th>
<th>Shredded Paper</th>
<th>Field Diversion</th>
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</thead>
<tbody>
<tr>
<td>Jan</td>
<td>40%</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Feb</td>
<td>40%</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td>March</td>
<td>40%</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>April</td>
<td>40%</td>
<td>20%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Lessons Learned

- Education, communications & engagement
- Location, location, location
- Size is right the first time
- Containers with legs
- Signage
- Cleaning service partnership
- Reporting metrics
- Repeat
SSE on Sustainable Options
Options for Diversion

ReUse - DONATION

Recycling

Reduce

Compost

Resale/Auction
Donation: Sustainable Surplus

Company Donates Sustainable Surplus Repurpose to Schools, Nonprofits Sustainable Surplus

RECYCLE
101,600 pounds Diverted in 2012

- Furniture: 66%
- Equipment: 12%
- Office Supplies: 7%
- Plastic/Glass: 5%
- Electronics, Other: 3.4%
- Appliances: 4%
Carbon Footprint Calculator (from CalRecycle)

101,000 lbs waste = 70 metric tons of CO2e

- Annual tailpipe emissions from 13 cars
- Emissions from the electricity use of 8 homes in one year
- CO2 captured by 1,787 tree seedlings grown over 10 years
Would You Like to Learn More?

Please contact:
CalRecycle
calrecycle.ca.gov/recycle/commercial

City of San Diego
sandiego.gov/environmental-services/recycling

County of San Diego
Sdpublic.sdcounty.ca.gov/environment/waste-recycling
Thank You!

Questions?