Water/Energy Relationship at SDG&E
SDG&E Business Overview

- 4,100 square miles in San Diego and southern Orange counties
- Serving 3.5 million electric and gas consumers
- 1.4 million electric and 850,000 natural gas meters
- 5,000 employees
SDG&E’s History w/San Diego County Water Authority

• SDG&E has a twenty plus year relationship with SDCWA
• Through our decades-long Partnership some of our achievements include:
  – Distributed over half a million low-flow showerheads
  – Assisted small businesses w/water equip installations, at low or no-cost
  – Made high-efficiency washers affordable for customers through our joint rebate program
• Established a formal Institutional Partnership with SDCWA in 2006 which established co-rebates for residential & commercial high efficiency washing machines
More History - Pilots

- SDG&E filed an application with the CPUC on 1/16/07
- Pilots began July 2008 and ran through December 2009
- Each IOU partnered with local water agencies to fund and manage the Water Pilots
- All IOUs developed different pilots – residential, commercial, low income - to measure the indirect energy savings and water savings in different ways
- SDG&E developed three water/energy pilots
  - Managed Landscape
  - Water/Energy Audits
  - Recycled Water
SDG&E EE Programs 2013-2014

- In 2013-2014 SDG&E:
  - Promote energy and water savings equipment by offering rebates, incentives on custom projects and agricultural pump testing
  - Leverage SDG&E’s financing offerings where applicable
  - Implement a leak loss detection and pressure management service in partnership with SDCWA.
  - Explore incorporating water efficiency into our IDSM audit process
  - Initiate planning efforts with our LGPs to develop comprehensive water efficiency programs for the 2015 and beyond.
  - Work with local agencies to implement water energy savings measures at SDG&E’s facilities
What is the Water Authority?

- Wholesale water agency created by State Legislature in 1944
  - 24 member agencies
  - 36-member board of directors
  - Serves 3.1 million people and region’s $188 billion economy

- Mission is to provide safe and reliable water supply to member agencies

- Service area
  - 950,000 acres
  - 97% of county’s population
Sources of San Diego County’s Water Supply

San Diego County imports ~70% of its water supply

State Water Project (Bay-Delta) 28%

Local Supplies and Conservation 28%

Colorado River 44%
### Increasing San Diego County's Water Supply Reliability through Supply Diversification

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Water Supply</th>
<th>Metropolitan Water District</th>
<th>Imperial Irrigation District Transfer</th>
<th>All American &amp; Coachella Canal Lining</th>
<th>Recycled Water</th>
<th>Seawater Desalination</th>
<th>Local Surface Water</th>
<th>Groundwater</th>
<th>Conservation (existing and additional)</th>
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</thead>
<tbody>
<tr>
<td>1991</td>
<td>578 TAF</td>
<td>552 TAF (95%)</td>
<td>(5%)</td>
<td>(14%)</td>
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<tr>
<td>2012</td>
<td>612 TAF</td>
<td>274 TAF (45%)</td>
<td>(4%)</td>
<td>(11%)</td>
<td>(3%)</td>
<td></td>
<td></td>
<td>(6%)</td>
<td>(4%)</td>
</tr>
<tr>
<td>2020</td>
<td>779 TAF</td>
<td>231 TAF (30%)</td>
<td>(6%)</td>
<td>(7%)</td>
<td>(4%)</td>
<td></td>
<td></td>
<td>(6%)</td>
<td>(13%) (10%)</td>
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</tbody>
</table>
Partnership Benefits and History

• Water efficiency programs reduce energy use

• Embedded energy saved through less transporting and heating of water

• Implemented numerous programs through partnership
Past Partnership Activities

• **Showerhead Distributions**
  – Implemented in early 1990s
  – Distributed more than 500,000 low-flow showerheads
  – Distributed through community events, home water use surveys, etc.

• **Pre-Rinse Spray Valve Installations**
  – Implemented in mid-2000s
  – Installed in more than 300 restaurants
  – Water Authority facilitated a financial incentive
  – SDG&E performed the installations
Past Partnership Activities

• **High-Efficiency Clothes Washer Rebates (HEWs)**
  – Installed more than 100,000 residential HEWs since 1994
  – Installed more than 9,100 commercial HEWs

• **Energy Efficiency Assessments for Water Agencies**
  – Implemented in 2010
  – Offered energy efficiency assessments to Water Authority and member agencies
  – Assessments performed on 103 water agency facilities
• **Home Energy and Water Savings Kits Distribution**
  – SDG&E provides free energy and water savings kits
  – Includes showerhead and aerators
  – Water Authority and member agencies distribute

• **Marketing**
  – Cross-market water and energy efficiency programs
  – Includes messaging on websites and distribution of program marketing materials
Past Partnership Activities

• **Water-Energy Pilot Program**
  
  – Implemented in 2008
  – Evaluated embedded energy use in three programs
    • Comprehensive water/energy audits
    • Managed landscape program
    • Retrofits of sites from potable water to recycled water
2013-2014 Partnership Activities

• **WaterSmart Landscape Efficiency Program**
  
  – Targets reduction in water use at sites with multiple acres of irrigated landscape
  
  – Achieves water savings through
    • Pre-implementation audit of site’s irrigation system
    • Services provided by a water management service company

![Diagram of WaterSmart Landscape Efficiency Program](image-url)
2013-2014 Partnership Activities

• Leak Loss Detection Program
  – Provides top-down water audits of retail water agency distribution systems
  – No cost to water agencies
  – Performed by a third-party contactor
  – Identifies opportunities to implement pressure management measures
2013-2014 Partnership Activities

- **Detention Facility Retrofits Program**
  - Saves water and embedded energy through the installation of water-efficient devices
  - Modeled after previous pilot program with savings of 300+ acre-feet per year
  - County of San Diego will provide financial and in-kind services
2013-2014 Partnership Activities

• Other activities include
  – Continue to cross-promote SDG&E’s programs
  – Distribution of energy and water savings kits
  – Host events/workshops at SDG&E’s Energy Innovation Center
Questions?
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