Southern California Edison
Clean Energy Future

January 13, 2011

Danielle Schofield
Business Customer Division
• 2011 Rate Changes
• Direct Access Deregulation Update
• Energy Efficiency
• Demand Response
• Smart Grid, Smart Connect
• Plug In Electric Vehicles
EIX Vision for Clean Energy Future

Integration of Information Technology with Energy Technology Delivers Environmental Benefits

- Renewable & Clean Generation
- SmartGrid
- Edison SmartConnect™
- Connected Home
- Connected PEV

Low Carbon Fuel Mix
Energy Management & Efficiency

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Energy Efficiency

Over the last five years SCE’s energy-efficiency programs have saved 5.6 billion kilowatt-hours = enough energy to power 789,000 homes for an entire year

&

reduced greenhouse gas emissions by
2.1 million metric tons = removing 400,000 cars from the road.

Over the next three years SCE is proposing to invest more than $1.3 billion to achieve savings in excess of 3.5 billion kilowatt-hours.
Demand Response Incentive Programs

- **Automated Demand Response (ADR System)**
  - Provides an incentive of $300 per kW of verified load reduction toward the purchase and installation of equipment that temporarily reduces load by remote activation
  - Customer must be enrolled and participating in an SCE Demand Response rate or program

- **Technical Assistance and Technology Incentives (TA&TI)**
  - Provides financial incentives up to $125 per kW of verified load reduction toward the installation of eligible technologies that reduce electricity usage during periods of peak demand
  - Provides demand response site assessments at no charge
SCE’s Smart Grid Leadership

- Reliably deliver a growing and diverse supply portfolio of renewable and clean generation
- Enable distributed energy resources and storage to support customer choice and improve grid stability
- Prevent catastrophic system failures through innovative real time power system analytics and grid technologies
- Minimize customer power disruptions due to distribution system failures through expansive automation
- Improve workforce safety and asset efficiency through smarter tools, worker protective equipment & electrical equipment
SCE’s Smart Grid Vision

A cleaner, more diverse generation supply flowing through a smarter and more reliable electricity grid to serve customers who are using electricity more wisely, and in more ways, than ever before.
Getting to Know Edison SmartConnect

www.sce.com/smartconnect
Empowering Customers

- Rate choices to manage costs
  - Time of Use and Tiered Rates
  - Critical Peak Pricing (CPP)
  - Peak Time Rebate (PTR)
  - Programmable Communicating Thermostats (PCT)
- Energy information and analysis
- Service automation-remote turn-on
- Billing & Payment options
- Communication with SmartGrid technologies to detect, avoid and repair grid problems in seconds

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www.sce.com/Sm ar tConnect
SCE Plug-In Electric Vehicle Leadership

Plug-in vehicles linked through Edison SmartConnect™ will be part of the future energy solutions to achieve transportation sustainability and energy storage.
Drivers for Electric Transportation

- Electricity is less expensive than gasoline or diesel
- Reduced maintenance requirements & longer life
- Cleaner source of fuel (greenhouse gases & criteria pollutants)
- Estimated cost of $3.00 per charge
- Technology readiness
- Lower life cycle cost
Vehicles in the Pipeline for 2010-12

- Mitsubishi
- BYD
- Ford
- BMW
- Nissan
- Tesla
- Chevrolet
- Smart
- Mercedes
- Toyota
## Types of Plug-in Vehicles

<table>
<thead>
<tr>
<th>Vehicle Types</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug-in Hybrid Electric Vehicle (PHEV)</td>
<td>• Up to 50 miles EV range&lt;br&gt;• Combines internal combustion engine and electric motor&lt;br&gt;• Serial or parallel configuration of engine and motor depending on model</td>
<td>Chevy Volt, New Prius PHEV</td>
</tr>
<tr>
<td>Battery Electric Vehicle (BEV)</td>
<td>• 160 miles on a 5 hour charge. Due in 2012&lt;br&gt;• Large battery, high-charge power&lt;br&gt;• 100 miles on an 8 hour charge. Just released.</td>
<td>Tesla Model S, Nissan Leaf</td>
</tr>
</tbody>
</table>
Smart Home Energy Experience
now open at SCE’s CTAC center
SCE is Leading the Way: Renewable Energy

- SCE is the nation’s largest purchaser of renewable energy - approximately 15 billion kWh in 2010
- 20% of SCE’s fuel portfolio is renewable energy as required by the California Public Utilities Commission
- Broader goal of 33% is proposed for 2020.
- SCE signed the world’s largest wind power contracts with OakCreek Energy and Alta Energy in Tehachapi for 4,500 MW of wind energy 2012
- SCE has signed 40 new contracts for up to 25 billion kWhs. They include the largest wind and solar contracts in the nation. In February SCE signed a 726 MW deal with Solar Millennium in Blythe. In June SCE signed a 1,300 MW deal with BrightSource Energy in Ivanpah (Needles) in the Mojave Desert.
Tehachapi Renewable Transmission Project and Devers Palo Verde Lines

- Project includes a series of new and upgraded high-voltage electric transmission lines and substations
- To be constructed in 11 segments
  - CPUC approved segments 1-3
- Estimated to be complete by 2013
- Will be capable of carrying up to 4,500 MW of generation
- Will deliver electricity from new wind farms in Tehachapi Wind Resource Area
- SCE signed largest wind energy contract in U.S. history
  - Secures at least 4,500 MW of power

New transmission to support system reliability and renewable energy
Rooftop Solar Photovoltaic Program

Application requested $875M to install 250 MW of PV within 5 years

- SCE Utility owned
- Most are 1 – 2 MW (dc) units
- Power delivered into SCE’s distribution system
- Estimated installed cost is $3.50/W (dc)
- Does not compete with California Solar Initiative (CSI)
  - Larger than CSI limit
  - Target roofs aren’t net metering candidates
- One in service: Fontana, 2.44 MW
- Two are underway:
  - Chino, 1.11 MW dc
  - Mira Loma, 1.67 MW
# 1st Quarter 2011 Rate Changes

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Department of Water Resources (DWR)</td>
<td>Change in allocation of costs from the long term state procurement contracts</td>
</tr>
<tr>
<td>2011 Energy Resource Recovery Account (ERRA)</td>
<td>Filed annually to recover generation costs. Primarily affected by natural gas costs and wholesale electric market costs</td>
</tr>
<tr>
<td>2009 General Rate Case (GRC) Attrition</td>
<td>GRC filed to establish and recover delivery and other costs for 2009, 2010 and 2011</td>
</tr>
<tr>
<td>Other Programs</td>
<td>Includes steam generator replacement, Edison SmartConnect, EE, DR and Solar PV programs</td>
</tr>
<tr>
<td>Federal Energy Regulatory Commission (FERC) GRC</td>
<td>Filed periodically to recover transmission (high voltage) costs</td>
</tr>
</tbody>
</table>
Gas Futures Prices

- The increase in SCE’s procurement cost is driven primarily by a substantial decrease in DWR’s procurement for SCE’s bundled service customers.
- DWR’s contracts begin to fall off in 2011 and SCE must replace these contracts at a much higher rate.
Estimated 2011 System Average Rate  Bundled Service
(cents/kWh)

2011 kWh sales are estimated to increase by 1.5% above the kWh sales used to set 2010 rates (84,727 vs 83,435 GWh)

0.6 ¢/kWh Increase

Note: Values reflect forecasted information as of 8/1/10 and are subject to change.

* Includes Steam Generator Replacement, Edison SmartConnect, and Solar PV Programs
January 1, 2011 Electric Rates

- Overall impact of the Jan. 1 rate change is minimal
- State’s Long Term contracts will be paid down this year
- General Rate Case filed for 2012-2014 estimates rate increases of 7.5% over 3 years

<table>
<thead>
<tr>
<th>Rate Schedule By Customer Group</th>
<th>Bundled Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Average Rate</td>
</tr>
<tr>
<td>Domestic</td>
<td>(¢ / kWh)</td>
</tr>
<tr>
<td>15.90</td>
<td>16.01</td>
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<tr>
<td>Lighting-SM Med Power</td>
<td></td>
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<tr>
<td>GS-1</td>
<td>17.41</td>
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<tr>
<td>GS-2</td>
<td>15.31</td>
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<tr>
<td>TC-1</td>
<td>15.84</td>
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<tr>
<td>TOU-GS-3</td>
<td>13.51</td>
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<tr>
<td>Group Total</td>
<td>15.26</td>
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<tr>
<td>Large Power</td>
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<tr>
<td>TOU-8-SEC</td>
<td>12.44</td>
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<tr>
<td>TOU-8-PRI</td>
<td>11.23</td>
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<tr>
<td>TOU-8-SUB</td>
<td>8.10</td>
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<tr>
<td>Group Total</td>
<td>10.79</td>
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<tr>
<td>Agricultural &amp; Pumping</td>
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<tr>
<td>PA-1</td>
<td>18.42</td>
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<tr>
<td>PA-2</td>
<td>13.22</td>
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<tr>
<td>TOU-AG</td>
<td>10.39</td>
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<tr>
<td>TOU-PA-5</td>
<td>9.82</td>
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<tr>
<td>Group Total</td>
<td>11.53</td>
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<tr>
<td>Street &amp; Area Lighting</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>14.29</td>
</tr>
</tbody>
</table>
Southern California Edison Can Help

- There are many different SCE Programs and Rates to choose from:
  - Energy Efficiency
  - Demand Response
  - Renewables
  - Optional Rates
  - Economic Development Services
  - Products & Services

- SCE offers detailed rate analyses to assist you in making decisions

- Our goal is to help you reduce your energy usage, energy cost and carbon footprint