## City Government Snapshot

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (City of Las Vegas)</td>
<td>607,876</td>
</tr>
<tr>
<td>Population (Metro area)</td>
<td>1,952,040</td>
</tr>
<tr>
<td>Visitors</td>
<td>36.35 million</td>
</tr>
<tr>
<td>Annual Budget</td>
<td>$493 Million</td>
</tr>
<tr>
<td>Square Miles</td>
<td>133.2</td>
</tr>
<tr>
<td>Projected Budget Shortfall for FY2011</td>
<td>$10 Million</td>
</tr>
<tr>
<td>City Departments</td>
<td>19</td>
</tr>
<tr>
<td>Annual Energy Costs</td>
<td>$15 Million+</td>
</tr>
<tr>
<td>(electricity + natural gas)</td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>2951 +</td>
</tr>
<tr>
<td>Investment in conservation and renewable energy</td>
<td>$47 Million</td>
</tr>
<tr>
<td>Vehicle Fleet</td>
<td>1000+</td>
</tr>
<tr>
<td>Facilities including community centers, parks, pools, golf courses and</td>
<td>187</td>
</tr>
<tr>
<td>water treatment plants</td>
<td></td>
</tr>
<tr>
<td>Utility Meters and Accounts</td>
<td>3300</td>
</tr>
</tbody>
</table>
Spring Mountain NRA

Red Rock NCA

Desert Wildlife Refuge

Las Vegas Dunes

Lake Mead Recreation Area

Sloan Canyon NCA
Spring Mountain
NRA
Background

Administrative Process

- Commitment to Concept
- Approval of Resolutions
- Development of Measurement Criteria
- Implementation Challenges
- Updates / Improvements

“Future Proofing”

Sustainability – The concept of meeting the needs of the present without compromising the ability of future generations to meet their needs.
Overview

FUNDING SOURCES

- $19.8 M
- $8.2 M
- $5.4 M
- $1.3 M
- $4.9 M
- $1.4 M
- $5.9 M
- $41k

$47 million Total Program Budget

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- Energy Efficiency and Conservation Block Grant
- Community Development Block Grant
- New Clean Renewable Energy Bonds
- Qualified Energy Conservation Bonds
- Green Building Special Revenue Fund
- NV Energy SolarGenerations Rebates
- Southwest Gas Energy Audit Rebate
- Sewer Enterprise Fund
Investment Decisions

Considerations
- Funding/Rebates
- Leverage
- Payback
- Energy Savings
- Emissions Reductions
Three Main Paths

- Streetlight Retrofits
- Building Retrofits/Upgrades
- Solar Panels
### Investment Decisions

#### Sustainable Energy Strategy 2012 Progress Report

<table>
<thead>
<tr>
<th>Project</th>
<th>Jobs</th>
<th>Economic Development</th>
<th>SES Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Retrofits</td>
<td>Mid</td>
<td>Mid</td>
<td>Mid</td>
</tr>
<tr>
<td>Streetlight Retrofits</td>
<td>Low</td>
<td>Low</td>
<td>Mid</td>
</tr>
<tr>
<td>Solar Carports</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>
## Total Economic Impact: > $50 Million

<table>
<thead>
<tr>
<th>Project</th>
<th>Investment</th>
<th>Payback (years)</th>
<th>Energy Savings</th>
<th>Emissions</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Retrofits</td>
<td>$3.75 M</td>
<td>10.6</td>
<td>$290 k</td>
<td>1,946 tons(^3)</td>
<td>65</td>
</tr>
<tr>
<td>Streetlight Retrofits</td>
<td>$4.18 M</td>
<td>5.3</td>
<td>$523 k</td>
<td>3,661 tons(^3)</td>
<td>15</td>
</tr>
<tr>
<td>Solar Carports</td>
<td>$17.22 M</td>
<td>14.1</td>
<td>$395 k</td>
<td>2,765 tons(^3)</td>
<td>236</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$25.16 M</td>
<td>9.5</td>
<td>$1.21 M</td>
<td>8,400 tons(^3)</td>
<td>316</td>
</tr>
</tbody>
</table>
Current Strategy

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Capture Savings

Reinvest in Conservation & Renewable Energy

Reinvest in Conservation & Renewable Energy

Capture Savings

Capture Savings
Current Targets

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7 MW by 2015

3 MW by 2011

Solar

Renewable Energy Portfolio Standard

- 10% in 2011
- 20% in 2020
- 30% in 2030
Project Progress

- Building Retrofits
  - Design underway (April 2011)
  - DSC (Atrium) / Detention Ctr.
    - Windows
    - Chiller/Central plant
    - HVAC
    - Lighting
  - Retrofits at 10 other facilities
    - HVAC controls
    - Motion sensors
    - Lighting and lighting controls
Project Progress

- Streetlight Retrofits
  - Mercury Vapor / High Pressure Sodium replacements
  - ~ 6,700 in Phase 1
  - 37,000 in Phase 2
  - 10,000 in Phase 3
Project Progress

- Solar Covered Parking
  - 1.8 MW
  - Phase 1 rebates
  - $541 k received
Utility Account Management

Baseline Data / Benchmark Year
2008

Key Categories

Utilities Measured

Proportionality

Performance

Reporting / Corrections
Recycling

- 50 Different items in 8 common categories
- Revenue negative / neutral / positive
- Offsite goal for collection
- Used by many departments, owned by few
- Threshold for supply / demand
Next Steps

- Building Retrofits/Streetlight Retrofits
- Phase 2 Solar Covered Parking
  - 18 sites (885 kW)
  - $4.11 M rebates
- Completion of 3 MW at Wastewater Treatment Plant
Questions
Thank You

Jeff Dix
City of Las Vegas