Vision

To realize the environmental, community, utility, and economic benefits; Austin City Council has passed several key resolutions:

- PEV Incentives & Leadership (050301-48)
- PEV Feasibility (040729-78)
- Energy Research, Pecan Street (20080925-084 & 20090866-033)
- Climate Protection (20070215-0232)

Austin Energy PEV programs are fully compliant with COA Resolutions

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Programs


Plug-in Partners™ – Rebates for Level 2 home-charging.

Texas River Cities EV Initiative – Regional plan to encourage adoption, improve standards, and reduce risk.

Pecan Street EV Pilot – Study the largest, non-fleet EV adoption in the country.

E-Ride Incentive Program – Encourage two-wheel electric transportation.

A Cleaner, Cost-Effective Choice

By going all electric, Austin PEV households can save nearly $3,000 in annual fuel costs and remove over 10,000 lb CO2e
**Cost-Effective & Stable**

Monthly Motor Gasoline Retail Price v. Monthly Electricity Price In $/gal Equivalent*

- **Forecast**
  - War in Iraq
  - Oil shock
  - US invasion of Iraq
  - Financial Crisis
  - Financial Crisis

**Importance of “Smart Charging”**

Charging During Peak (Undesirable):
- Generates more CO2 from utilizing peak generation
- Higher cost per kWh to provision from energy markets
- May overload transformers

Charging Off Peak (Desirable):
- Less CO2 emissions
- Aligns well with wind generation
- Lower cost per kWh to provision
- Significant revenue opportunity
PEV Charging Data

Real-world data shows that air conditioning and now potentially PEVs can dominate household energy needs.

<table>
<thead>
<tr>
<th>kW</th>
<th>Time of Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigerator</td>
<td>Microwave/toaster oven</td>
</tr>
<tr>
<td>Living room/TV</td>
<td>Washer/dryer</td>
</tr>
<tr>
<td>Kitchen lights</td>
<td>Dishwasher</td>
</tr>
<tr>
<td>Garage</td>
<td>Master bedroom</td>
</tr>
</tbody>
</table>

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"Bigger & Faster" Trend

2013 Tesla S
85 kWh battery @ 19.2 kW charge rate

2013 Nissan Leaf
24 kWh battery @ 6.6 kW charge rate

2012 Chevy Volt
16 kWh battery @ 3.3 kW charge rate

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Addressing Utility Impact

Currently...

Business Models
- New Time of Use & Tiered Rates

Collaboration & Outreach
- Electric Power Research Institute
- Texas River Cities EV Initiative

New Technologies
- Vehicle and station timers

Understanding Consumer Behavior
- Pecan Street, Inc
- Surveys & Studies
- EV Information Exchange

And In The Future...

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Adoption

Electric Power Research Institute (EPRI)
PEV Austin Forecast

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Roadmap

1. OPERATIONAL
   Completed
   - Public charging on GreenChoice
   - Pre-Pay cards
   - Home charging rebate program
   - E-Ride Program

2. GROW
   In-Progress
   - Workplace, Fleet, & Multi-Family programs
   - Process improvements
   - New market channels
   - Advanced PEV studies & pilots (TRC, PSP)

3. TRANSFORM
   Planning
   May include:
   - New business models and EV rates
   - Ancillary Services & Demand Response
   - Faster charging mgmt

2011  2012  2013  2014+

Program Partners (examples)

Workplace Charging Pilot – National Instruments

Car Share PEV Pilot – Car2go

EVSE Installers
26 registered Electricians

Car Dealership Charging Pre-Pay Pilot – Town North Nissan
Federal PEV Grants of $1.6M

ChargePoint America
2011-2012: $633k (100% Complete)
   Deployed 113 public charging stations.

Texas River Cities PEV Initiative
2012-2013: $500k (80% Complete)
   Comprehensive plan, outreach, & open forum.

Texas Fuel Independence Project
2013-2014: $500k (Planning Stage)
   Execute and expands alternative fuel scope of The Texas River Cities PEV Plan.

Texas River Cities Participants

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Recognition

2012 Top 10 Networked Utility North America & #1 "coolest" EV project -GreenTech Media

2012 "Bronze Quill" for Plug-in EVERYwhere -International Assoc. of Business Comm.

2012 A Top EV Friendly City -US Electric Drive Transportation Assoc.

"Another way Austin is promoting green driving is by providing over 100 charging stations for EVs." – AOL autos

"These cities [Austin, Normal, Los Angeles, Mercer Island] are truly the pioneers of electric drive across America.” – Brian Wynne, President of the EDTA.

"The utility has earned a reputation as a national player in plug-in vehicles…”
– Austin American Statesman

"...(Austin Everywhere Network) all powered by 100% renewable energy.”
– US Department of Energy, GreenPower News

Contact

Questions?

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