

# BACKGROUND & RESEARCH BRIEF

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## Austin Energy EV Managed Charging and Home Battery Storage Programs: The Case for Top-Decile National Competitiveness

*Prepared for Austin Resource Management Commission | February 2026*

### Executive Summary

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**The bottom line:** Austin Energy current incentives for electric vehicle managed charging and home battery storage are dramatically weaker than leading national programs or even the open deregulated Texas market that is available just a few miles from Austin — and dramatically weaker than what Austin own adopted climate plans require. This brief documents the gap, provides national comparisons, and supports a City Council resolution directing Austin Energy to benchmark these programs and bring them into the top ten percent nationally.

**EV Managed Charging:** Austin Energy's Power Partner EV program pays enrolled customers approximately \$35 per year after the first year. Comparable leading programs pay over \$1,000 per year in equivalent consumer value. Austin Energy program, as currently structured, is not competitive and fails to adequately incentivize off-peak or renewable-aligned charging.

**Home Battery Storage:** Austin Energy's forthcoming battery pilot program, based on preliminary parameters, would deliver an implied payback period of approximately 45 years — compared to 5–8 years available in the deregulated Texas competitive retail market, and 5–7 years available under the ConnectedSolutions program in Massachusetts. This gap makes Austin Energy's program nearly irrelevant as a driver of battery adoption.

**Why it matters:** Transportation is rapidly becoming Austin's largest source of greenhouse gas emissions. Distributed battery storage and smart EV charging are among the most powerful tools available to integrate renewable energy, avoid costly peaker plant dispatch, and reduce air pollution. Austin has both the policy mandate and the utility infrastructure to lead — but only if the incentives are commensurate with the ask.

## 1. Austin's Adopted Climate & Utility Commitments

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### The Austin Climate Equity Plan (2021)

Adopted unanimously by City Council in September 2021, the Austin Climate Equity Plan establishes the following binding community-wide goals directly relevant to this resolution:

- **Net-zero greenhouse gas emissions by 2040**, with a strong interim emphasis on cutting emissions by 2030.
- **40% of vehicle miles traveled electrified by 2030**, with EV ownership that is "culturally, geographically, and economically diverse."
- An equitably distributed mix of charging infrastructure to support rapid EV adoption.
- Explicit recognition that transportation is the primary source of local air pollution and the fastest-growing source of GHG emissions.

*Note: Austin first adopted a Community Climate Plan in 2015 (Resolution 20150604-048), setting a net-zero by 2050 trajectory. The 2021 update accelerated that to 2040 and added a racial equity framework.*

## Austin Energy Resource, Generation & Climate Protection Plan to 2035

Adopted by City Council in December 2024, Austin Energy's 2035 Plan commits the utility to:

- **100% carbon-free energy by 2035** — an industry-leading goal.
- **New and innovative customer energy solutions** as a core strategic pillar.
- **Energy equity** as a foundational value, directing that clean energy benefits reach those who need them most.
- Improved reliability, affordability, and environmental sustainability.

The 2035 Plan explicitly contemplates that distributed energy resources — including home batteries and managed EV charging — will play a significant role in meeting Austin's clean energy goals. Failing to properly incentivize these resources is inconsistent with the 2035 Plan's own strategic framework.

## Austin Energy as a City-Owned Utility

Because Austin Energy is a municipally owned utility — not a private investor-owned utility regulated by the Public Utility Commission of Texas — the City Council has direct authority over its programs, rates, and incentive structures. This is a governance advantage that peer cities in the deregulated Texas market (where customers choose among competing retail electric providers) do not enjoy. It means Austin can direct Austin Energy to offer exactly the kind of programs that best serve the City's climate and equity goals, without waiting for regulatory approval.

## 2. EV Managed Charging: National Landscape & Austin's Gap

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### How EV Managed Charging Programs Work

Utility EV managed charging programs pay customers to allow the utility to shift or briefly pause their home EV charging during periods of peak electricity demand — typically hot summer afternoons when grid stress is highest. In return:

- The utility avoids dispatching expensive, high-emitting peaker power plants.
- The customer receives ongoing bill credits, rate discounts, or cash payments.
- The grid becomes better able to absorb variable renewable energy by using EV batteries as flexible load.

According to the Smart Electric Power Alliance (SEPA), over one-third of the 100 largest U.S. utilities now offer active managed EV charging programs. Research by the Northeast Group found that customers could save an average of 37 percent more on electricity costs by participating in managed charging or time-of-use (TOU) rate programs compared to standard tariffs.

### Austin Energy's Current Program

Austin Energy's Power Partner EV program offers:

- **\$50 enrollment bill credit** (one-time, upon acceptance into the program).
- **\$25 annual retention credit** for each subsequent year of participation.
- Remote adjustment (pause or slow) of eligible Level 2 EV chargers or telematics-enabled vehicles during peak events, primarily June through September, between 2–10 p.m., up to 15 events per month, up to 4 hours each.

**Key calculation:** For a customer after year one, the annual benefit is \$25. The one-time \$50 enrollment credit, when amortized over a 10-year program participation, adds approximately \$5 per year, for a total of roughly \$30–\$35 in average annual value. Even accepting the full \$50 enrollment credit as annual value in year one, the program delivers far less than comparable leading programs.

**Note on home charger rebate:** Austin Energy separately offers a rebate of up to \$1,200 (50% of cost) for installing a qualifying Level 2 home EV charger. This is a one-time capital subsidy that reduces

upfront costs. It is separate from the ongoing managed charging incentive discussed here, and is not atypical nationally. The core issue is the ongoing incentive for participation in demand management.

## National Program Comparison: EV Managed Charging

Program / Utility	Program Type	Annual Value (12k miles/yr)	Key Mechanism	Notes
ConnectedSolutions (National Grid / Eversource, MA)	Managed charging + VPP	\$900–\$1,500+	\$275/kW annual performance payment	Batteries; designed for 5-yr cost recovery
MCE Sync (MCE, CA)	Managed charging + solar alignment	~\$170/yr + off-peak savings	\$50 enrollment + \$10/mo for low-carbon events	90% peak reduction; 10% market penetration
Green Mountain Power (Vermont)	Free charger + TOU rate	Equiv. ~\$1.20/gallon	Free Level 2 charger while enrolled in discount rate	Charging at ~\$1.15–\$1.20/gal equivalent
PG&E EV2-A Rate (PG&E, CA)	Time-of-use rate	\$500–\$1,000+ in bill savings	\$0.31/kWh off-peak vs. high on-peak rates	Off-peak charging deeply discounted
SEPA National Average (active programs)	Monthly or annual incentive	\$36–\$300/yr	40% of programs offer \$3–\$25/month or \$20–\$250/year	Wide range; Austin near or below floor
<b>Austin Energy Power Partner EV (CURRENT)</b>	<b>Demand response (pause/slow)</b>	<b>~\$35/year (after yr 1)</b>	<b>\$50 enrollment + \$25/yr retention</b>	<b>BOTTOM DECILE nationally</b>

Sources: SEPA Managed Charging Incentive Design Report; National Grid ConnectedSolutions; MCE Sync ev.energy case study; Green Mountain Power EV programs; PG&E EV2-A rate schedule; Austin Energy Power Partner EV program terms.

## Why the Gap Matters for Austin

Austin has estimated 62,000 registered EVs and has been recognized as one of the top three U.S. cities for EV ownership. This represents an enormous and underutilized grid flexibility resource. Each EV enrolled in an effective managed charging program can shift 3–7 kWh of demand from peak to off-peak periods per charging event. At 62,000 vehicles, even a 20% enrollment rate would represent over 12,000 flexible load resources capable of providing hundreds of megawatts of demand response — comparable to a small peaker plant, but free.

The current \$35/year incentive does not justify the behavioral change or equipment requirements asked of customers. Leading programs are designed around the principle that the value extracted from the customer's participation (in avoided peaker dispatch, deferred infrastructure, and improved renewable integration) should be substantially shared with that customer. Austin Energy's current design does not reflect this principle.

## 3. Home Battery Storage: National Landscape & Austin's Gap

### How Utility Battery Programs Work

Utility battery incentive programs compensate residential customers for installing home battery storage systems and enrolling in virtual power plant (VPP) programs. When peak demand events occur, the utility dispatches the customer's battery to reduce grid stress, avoiding the need to fire expensive, high-emitting peaker plants. Customers receive:

- Upfront capital rebates (reducing installation cost)
- Annual or seasonal performance payments for grid services provided
- In some cases: subsidized or free equipment while enrolled

The Clean Energy States Alliance reports that battery owners in approximately half of all U.S. states now have access to VPP programs. The North American VPP market reached 37.5 gigawatts of capacity in 2025, a 14% increase year-over-year. This is a rapidly maturing market.

## Austin Energy's Current Battery Pilot Structure

**The problem in numbers:** Based on preliminary Austin Energy battery pilot program parameters, the incentive structure implies a payback period of approximately 45 years for a typical residential battery installation. By comparison:

- **Texas deregulated retail market VPP programs:** 5–8 year payback periods, as competitive retail electric providers offer battery-as-a-service arrangements and performance payments to attract and retain customers.
- **National Grid Connected Solutions (MA):** Explicitly designed for full cost recovery within 5 years; pays average \$1,500/year on a typical installation, guaranteed for 5 summers.
- **Green Mountain Power (VT):** Provides Powerwalls at no upfront cost to customers enrolled in its VPP program; utility retains ownership and dispatches during peak events.
- **PSEG Long Island:** Pays \$250–\$625 per kilowatt-hour of usable battery capacity upfront, immediately reducing cost basis before any performance payments.
- **California SGIP program:** General residential rebates of ~\$150/kWh; equity-tier customers can receive \$850–\$1,000/kWh — potentially making the battery free or near-free at installation.

A 45-year payback period is, as a practical matter, no incentive at all. The average homeowner does not make home improvement investments with payback periods beyond 10–15 years, and a typical lithium battery has a useful life of 10–15 years. Austin Energy's current design essentially asks customers to invest their own capital with no realistic prospect of cost recovery from utility program participation.

## National Program Comparison: Home Battery Storage

Program	Annual Payment or Upfront Incentive	Approx. Payback Period	Key Feature	Market Context
Connected Solutions (MA) National Grid / Eversource	\$1,375–\$1,500/yr (5-yr locked rate)	5–7 years	Annual perf. payment, designed for cost recovery	Regulated utility; largest VPP in Northeast
Green Mountain Power Powerwall Program (VT)	No-cost battery (utility owns)	~0 years (customer owns nothing)	Free Powerwall while enrolled; utility dispatches	Pioneer municipal utility model
PSEG Long Island Battery Storage Rewards (NY)	\$250–\$625/kWh upfront	5–8 years	Upfront rebate + 10 dispatches/year	~\$2,500–\$6,250 per typical installation

Program	Annual Payment or Upfront Incentive	Approx. Payback Period	Key Feature	Market Context
California SGIP (PG&E, SCE, SDG&E)	\$150–\$1,000/kWh upfront rebate	4–10 years (varies by tier)	Equity tiers can make battery near-free	Over \$1B in CPUC-authorized funding
TX Deregulated Market (competitive REPs)	Equiv. 5–8 yr payback available	5–8 years	Battery-as-a-service, VPP enrollment, TOU value	Market competition drives customer-friendly terms
<b>Austin Energy Battery Pilot (PROPOSED)</b>	<b>TBD (preliminary)</b>	<b>~45 years (preliminary estimate)</b>	<b>Program details pending; pilot phase</b>	<b>WELL BELOW COMPETITIVE BENCHMARK</b>

Sources: Mass Save ConnectedSolutions; Green Mountain Power Powerwall program; PSEG Long Island Battery Storage Rewards; CA CPUC SGIP; Clean Energy States Alliance VPP Summary Table (updated Feb 2026); EnergySage battery incentive guide.

## The Texas Competitive Market Context

This point deserves particular emphasis. Austin Energy customers — by virtue of being in Austin Energy's service territory — are ineligible to switch to competitive retail electric providers. Customers in the surrounding deregulated portions of Texas can shop for REPs that offer battery-as-a-service programs, VPP enrollment with meaningful payments, and other innovative products. Austin Energy's customers are a captive market with no competitive alternative.

A 45-year payback period compared to 5–8 years next door is not merely a competitive disadvantage — it is a failure of the public utility's obligation to deliver equivalent value to its captive ratepayers. When the deregulated market is outperforming a city-owned utility on clean energy adoption incentives, that is a signal requiring correction.

## 4. Grid Benefits, Air Quality, and the Cost of Inaction

The case for strong managed charging and battery incentives is not purely about individual consumer economics. The grid-level and environmental benefits are substantial:

### Peaker Plant Avoidance

Austin and ERCOT face recurring peak demand stress during hot Texas summers. Peaker plants — typically natural gas combustion turbines that run only a few hundred hours per year — are the most expensive and most polluting generation resources on the grid. They also contribute disproportionately to air quality degradation in communities near generation facilities.

A well-subscribed residential battery VPP program can aggregate hundreds of megawatts of dispatchable capacity at a fraction of the cost of building or contracting new peaker capacity. The Northeast Group's research found that such programs lower costs for all utility customers, not just participants, because avoided peaker dispatch reduces real-time market prices.

### Renewable Integration

Austin Energy has committed to 100% carbon-free energy by 2035. Solar generation peaks midday; demand peaks late afternoon and evening. Without flexible demand or storage, large amounts of solar

energy must be curtailed or met with backup gas generation during the transition. Home batteries and managed EV charging are precisely the demand-flexibility resources needed to close this gap — charging when solar is abundant and discharging (or deferring) during the demand peak.

## Air Quality and Environmental Justice

Austin's Climate Equity Plan explicitly notes that transportation emissions are the primary source of local air pollution, and that low-income communities and communities of color bear a disproportionate burden from this pollution. Accelerating EV adoption and ensuring that EVs charge during clean energy periods directly reduces this burden. Well-designed battery programs with equity tiers — like California's SGIP Equity Resiliency tier — can simultaneously reduce air pollution and address energy affordability for vulnerable communities. Austin Energy's current programs do not include such tiers.

## 5. What the Council Should Direct

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The accompanying Resolution directs Austin Energy to take the following specific actions:

- **Conduct a national benchmarking study** within 90 days, identifying the full range of EV managed charging and battery storage programs nationally and establishing the 90th percentile benchmarks for consumer incentive value.
- **Redesign the Power Partner EV program** to deliver annual consumer value within the top ten percent of comparable national programs — equivalent to at least the 90th percentile of annual equivalent benefit for a customer driving 12,000 miles per year.
- **Redesign the home battery program** so that the effective payback period, combining the Austin Energy incentive with any applicable tax credit, is less than the average payback available to Texas deregulated market customers and in any event no longer than ten years.
- **Report to Council and the Electric Utility Commission** within 180 days with detailed program proposals, cost-benefit analysis, and an implementation timeline.
- **Prioritize equity** by removing participation barriers for renters, income-qualified customers, and environmental justice communities.
- **Re-benchmark every two years** and propose program adjustments to maintain top-decile competitiveness.

These are not extraordinary asks. They reflect what well-run municipal utilities around the country are already doing. What is extraordinary is the gap between Austin's climate ambitions and its current program design. This resolution closes that gap.

## Key Sources & References

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