The SB 1699 Playbook for ERCOT REPs: Turning Voluntary Compliance into a Significant, Year-Round Revenue Stream for Grid Resilience

I. Executive Summary: The Proactive REP's Advantage in ERCOT's Evolving Landscape

The ERCOT grid faces a pivotal moment. Senate Bill 1699 (SB 1699) presents a unique opportunity for Retail Electric Providers (REPs) to enhance grid stability, while concerns over "shoulder season" reliability underscore the urgent need for flexible resources year-round. While participation in SB 1699-driven demand response programs is **voluntary for now, it represents a clear strategic imperative for the future of the ERCOT grid**.

This paper examines how forward-thinking Retail Electric Providers can leverage SB 1699's initial voluntary provisions to establish a consistent and significant revenue stream by proactively contributing to ERCOT's year-round grid resilience, thereby **strategically positioning themselves to meet the grid's future requirements**. Strategic, early action allows REPs to capitalize on current market opportunities, reinforce grid stability, and gain a critical head start on forthcoming grid integration. For REPs ready to lead, the time to act is now.

II. The ERCOT Grid: A Landscape of Growing Challenges

ERCOT's Unique Volatility

The Electric Reliability Council of Texas (ERCOT) operates an isolated grid, making it particularly susceptible to rapid load growth, increasing penetration of intermittent renewable generation, and extreme weather events. These factors contribute to a dynamic and often volatile operating environment.

Beyond Summer Peaks: The "Shoulder Season" Dilemma

Historically, grid reliability concerns in ERCOT focused primarily on extreme summer heat or winter cold. However, new analyses, including research by Aurora Energy Research, highlight a growing concern over "shoulder seasons" (spring and fall). These periods are increasingly prone to reliability challenges due to factors like aging infrastructure, unpredictable weather swings, and the need for greater system flexibility. Aurora Energy Research even suggests **ERCOT could face load-shedding events by 2030**, driven by the escalating demand for flexible resources. This necessitates responsive capacity beyond just traditional peak hours, making residential demand response a vital component for overall grid stability throughout the year.

III. SB 1699: A Strategic Imperative – Opportunity Now, Future Necessity

Decoding SB 1699's Intent

Enacted in 2023 and effective September 1, 2023, Texas Senate Bill 1699 directs the Public Utility Commission of Texas (PUCT) to establish rules for programs promoting residential demand response (DR) and facilitating the aggregation of distributed energy resources (DERs). These rules, adopted by the PUCT in December 2024 (Docket No. 56966), set clear goals for residential load reduction (e.g., a 20% reduction) and establish new reporting requirements.

Proactive Engagement for Future Readiness

While current participation in residential demand response programs stemming from SB 1699 is v**oluntary for REP**s, the PUCT's mandate to establish rules and set specific goals for residential DR signals a clear and inevitable direction towards greater integration of demand-side resources into grid operations. Early engagement allows REPs to gain invaluable operational experience,

establish market leadership, and optimize their strategies, ensuring readiness for a future where residential DR becomes a more integral and potentially required component of grid management.

The Financial Incentive

REPs can generate new revenue now by enabling residential customers to participate in DR programs and by aggregating DERs for wholesale market opportunities. This revenue is directly tied to providing critical flexible resources for the grid, which are needed year-round to address ERCOT's evolving reliability needs. Crucially, this early revenue helps offset costs associated with preparing for the grid's evolving requirements and future integration efforts.

The Strategic Advantage

Proactive engagement positions REPs as leaders in grid modernization, enhancing customer loyalty through innovative offerings and securing market share. By acting now, REPs build a significant competitive edge as ERCOT's grid continues its transformation.

IV. The "Build vs. Buy" Dilemma: Why External Specialization Wins

Navigating the complexities of SB 1699 and building robust DR/DER aggregation platforms presents a significant "build vs. buy" challenge for REPs. Developing these capabilities in-house often leads to:

Extended Time to Market

Slow internal development can mean missed revenue opportunities and delays in contributing to grid needs.

Integration Complexity

Seamlessly connecting new DR platforms with existing legacy OMS, CRM, and billing systems can be a daunting task.

Future Adaptability

Internal builds may struggle to adapt to future grid requirements and new market mechanisms efficiently a mutually beneficial partnership.

Ongoing Maintenance Burden

Custom solutions require continuous updates to keep pace with evolving regulations and technologies.

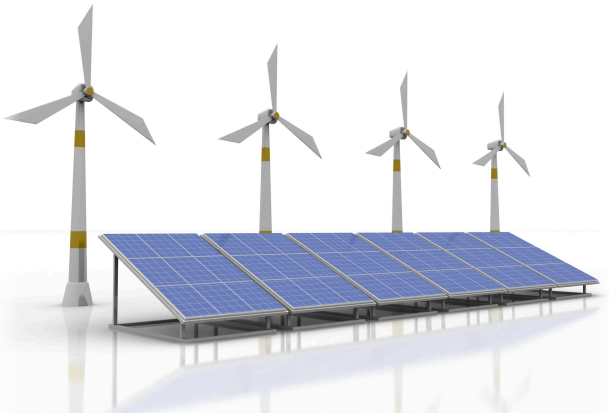
Lack of Specialized Expertise

DR, DER aggregation, and energy market integration require unique skill sets often not found within traditional REP IT departments
a mutually beneficial partnership.

Resource Constraints

Diverting internal engineering talent from core business can strain resources.

Partnering with a specialized technology consultancy like Codibly offers a proven path to efficiency, speed, and quality. This approach emphasizes faster time-to-revenue and reduced long-term costs compared to bespoke internal efforts, ensuring REPs are well-prepared for the future grid landscape without diverting critical internal resources.



V. Codibly's Approach: Custom Solutions with Accelerated Delivery for ERCOT Leadership

Strategic Customization with Proven Components

While Codibly builds **custom solutions** tailored to each REP's specific needs, we strategically leverage **trusted, pre-built, and pre-certified solution component**s to accelerate delivery and ensure robustness. This hybrid approach enables the flexibility of custom development while leveraging the speed and reliability of established technology. Our focus on **future-proof modular design** ensures scalability and adaptability, meaning the solution grows with the REP's needs and can smoothly adapt to future grid requirements.

Accelerated DR Communication Protocol Enablement

We devote significant attention to our DR communication protocol accelerators (OpenADR and IEEE 2030.5 / CSIP). These pre-built, pre-certified components significantly speed up the delivery path, reduce integration risk, and ensure immediate compliance with the critical communication standards required for grid flexibility and future grid integration. Leveraging these trusted solution components means REPs gain a compliant, high-performing system faster.

High-Performance Custom Platforms

Development of tailored systems for robust event scheduling, seamless customer enrollment, and precise real-time device telemetry, optimized for ERCOT's dynamic environment.

Comprehensive Integration Expertise

Proficiency in integrating with existing REP systems (OMS, CRM, billing) and other crucial industry partners/protocols, covering diverse device types (thermostats, EVs, water heaters).

Rigorous Compliance Validation

Our development process ensures complete alignment with ERCOT rules and PUCT §25.186, and supports necessary certifications. Our expertise in these areas ensures that custom solutions are built with future grid requirements in mind, preparing REPs for the evolving grid landscape.

Active Engagement in the Texas Market

Codibly is actively engaged in the Texas energy market, having recently secured a new project with a fellow Texas REP. This upcoming engagement underscores our competitive edge and expertise in building custom DR platforms that integrate smart devices, manage real-time telemetry, and orchestrate events. This demonstrates our ability to deliver solutions designed to capture DR incentives without overhauling internal systems and to position REPs for the grid's future strategically.

Next Steps: Connect with Codibly

The opportunity presented by SB 1699 and ERCOT's evolving grid needs is significant and immediate. Explore how Codibly can architect your REP's custom solution for SB 1699 success and long-term grid resilience, ensuring you're prepared for both current opportunities and the future of ERCOT.

Our expert, Spencer Borison, will be attending the **Infocast Texas Clean Energy Summit in Austin (August 26-28, 2025)**. This is a prime opportunity for a personalized discussion on your specific needs, our accelerated custom development approach, and how to strategically leverage SB 1699 for continuous revenue and future grid readiness. Schedule your meeting with Spencer in advance to secure your spot.

››› Schedule the meeting ‹‹‹

Spencer Borison
US Lead, Associate Partner
Renewable Energy Practice

About Codibly

Codibly is a technology consultancy specializing in crafting bespoke software solutions for the renewable energy and e-mobility sectors. With a mission to accelerate the global energy transition, we partner with leading utilities, energy retailers, and aggregators to build innovative platforms that address complex energy challenges. Our expertise spans demand response, virtual power plants, battery energy storage, and intricate system integrations, empowering our clients to navigate evolving markets, optimize operations, and unlock new value streams in the dynamic energy landscape.