Large Load Modelling

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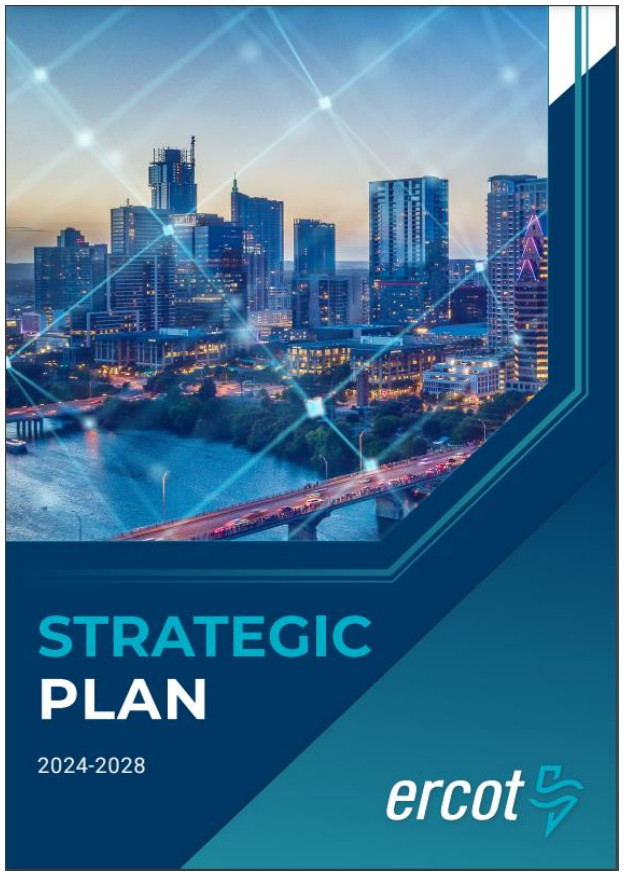
Grid Research, Innovation, and Transformation (GRIT) Serves ERCOT's Strategic Objectives



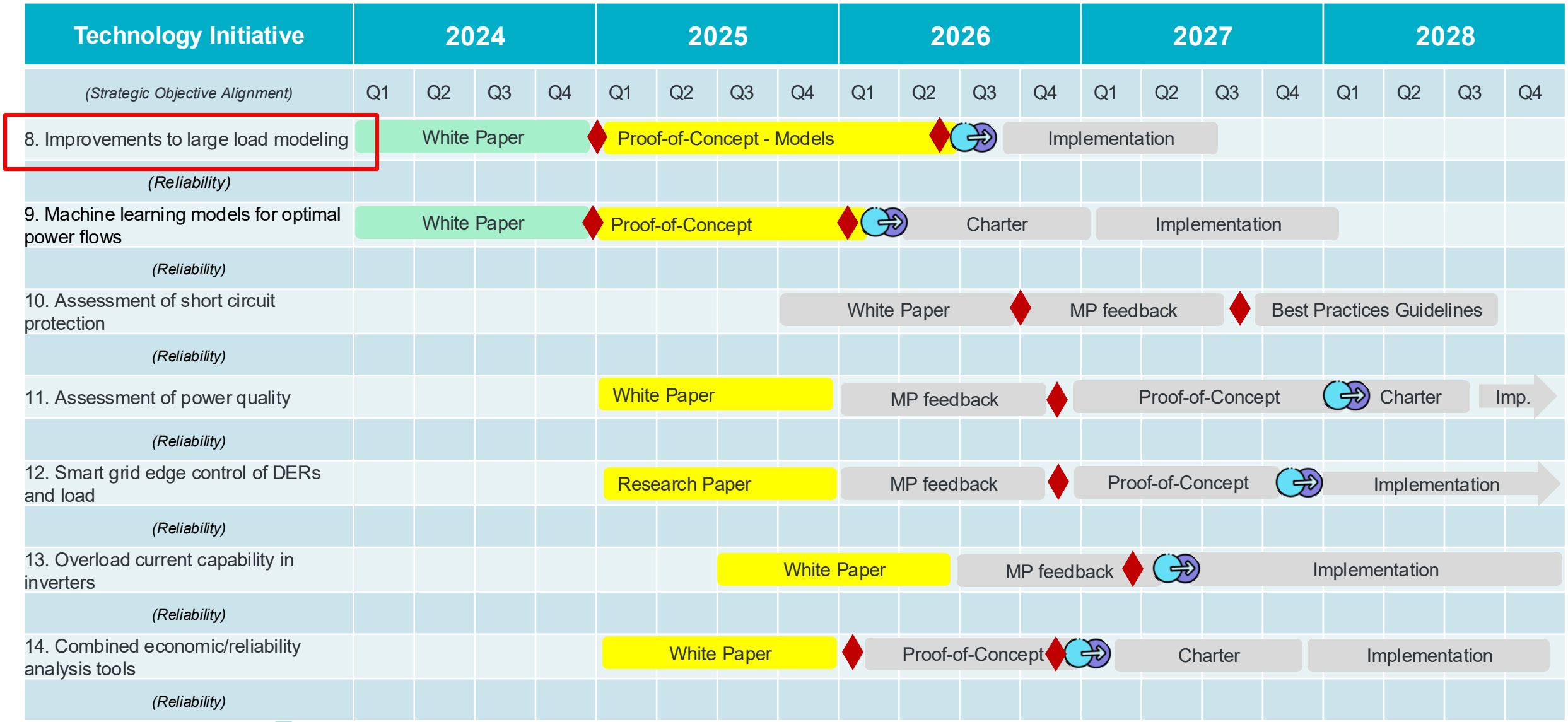
- Be an industry leader for grid reliability and resilience
- Enhance the ERCOT region's economic competitiveness with respect to trends in wholesale power prices and retail electricity rates to consumers
- Advance ERCOT Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission

GRIT's purpose, vision, and mission are fully aligned with ERCOT's strategic objectives—driving innovation that enhances grid reliability, improving market efficiency, and ensuring readiness for a rapidly evolving energy landscape.

GRIT Roadmap

Technology Initiative	2024				2025				2026				2027				2028			
(Strategic Objective Alignment)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. ESR Energy Sufficiency	White Paper				Proof-of-Concept				Implementation											
(Reliability/Efficiency)																				
2. Receive operational info from DERs	White Paper				Proof-of-Concept				Implementation											
(Reliability/Efficiency)																				
3. Meter data disaggregation for DR	Proof-of-Concept					RFP			Implementation											
(Reliability/Efficiency)																				
4. Measure and estimate the regional inertia and system strength	Proof-of-Concept (Phases)								Implementation											
(Reliability)																				
5. Reactive power coordination					Proof-of -Concept				Charter				Implementation							
(Reliability)																				
6. Robust security constrained optimizations	White Paper				Proof-of-Concept				Charter				Implementation							
(Reliability/Efficiency)																				
7. Impedance scanning tool for stability assessment	White Paper				Proof-of-Concept								Implementation							
(Reliability)																				

GRIT Roadmap



Large Load Modelling

Background:

- Models developed in collaboration with Texas A&M University
- **Generic** models with the goal of summarizing our understanding of large electronics load in a model that can help save time on circular conversations
- The **site-specific models** should reflect the actual site which will be different from generic models

Models:

- Crypto Mining
- Data Centers – Four architecture based on Open Compute Project (OCP) public information
- Electrolyzer