Platte River Power Authority

Estes Park • Fort Collins • Longmont • Loveland

Utility directors' meeting

Loveland Water and Power
Friday, March 14, 2025, 10 a.m.

Agenda

- Estes Park technical discussions — Reuben Bergsten
  - None
- Fort Collins technical discussions — Travis Walker
  - None
- Longmont technical discussions — Darrell Hahn
  - Meter upgrade challenges
  - Maintenance programs
  - Longmont leadership opportunity (Assistant City Manager for External Services)
  - BESS status?
  - BESS safety courses
  - DistribuTech planning
- Loveland technical discussions — Sharon
  - Battery storage update
- Platte River technical discussions
  - DER alignment update — Paul Davis
  - Organic Contract/Power Supply Agreement continued — Sarah
  - Utility Director charter – DRAFT — Melie
  - Follow up from Larimer County Commissioners mtg — Jason

Follow up items

- Large load steering committee

Distributed energy resource (DER) and virtual power plant (VPP) alignment and coordination report

Mar. 11, 2025

This report provides a high-level update on major systems, policies and programs related to DER integration and VPP development, their current statuses and plans for changes or replacements.

System, policy or program	Brief description (as it relates to DER)	Platte River	Estes Park	Fort Collins	Longmont	Loveland
Enterprise and tenant grid DERMS	Enhanced control system for PRPA and OC VPP	In contract negotiations and scope development with selected enterprise grid DERMS vendor. Platte River and the owner communities are working with the help of Utilicast to support our grid DERMS scope development, implementation and DER business process development. Targeting launch of operator dispatch mode 4Q2026, market dispatch mode 2027, distribution management mode 2029				
Efficiency Works VPP programs and edge DERMS	Supports customer enrollment and provides visibility and control to DERMS	In contract negotiation and scope development with selected VPP program and edge DERMS vendor. Targeting pilot program launch early 2026.				
Owner-community DERMS	Same as enterprise DERMS but focused in one OC		We are planning to tenant under the PRPA DERMS	Continuing to operate and enroll devices in existing DERMS platform as basis for controlled devices in region. 25/26 budget includes funding for 2,300 devices.	Planning to tenant under the PRPA DERMS.	Planning to tenant under the PRPA DERMS.

Data management (DER system of record, DER operational data, AMI data)	Data and its effective management support coordinated and efficient DER integration and management	EPRI has delivered to Platte River technical specifications for a database for DER management systems. We will use this information to guide our data management approach as we begin implementation of our grid DERMS and VPP programs.		Has existing system(s) of record across grid flexibility and distributed generation. Likely need to maintain AND coordinate regionally with PRPA and other cities.	Establishing improved DER system of record in GIS database with system info for existing 8 MW of DG and storage. Identified 1MWH of permitted BTM storage and beginning to conduct data analysis. Have begun to utilize AMI data to run load disaggregation to begin to identify residential EVs on our grid. Also analyzing AMI data for level 2 and 3 commercial chargers to evaluate usage/demand patterns and transformer loading. Finally, using AMI data to identify poor power factor.	
Owner community VPP programs	Same as EW VPP programs but focused in one OC		No single system platform in place; planning to implement common programs with PRPA and other OCs	Will continue to enroll devices and programs into FC grid edge DERMs. When building regional programs, we plan to coordinate on an individual basis for what technologies will be best through FC aggregation vs. PRPA aggregation.	No single system platform in place; planning to implement common programs with PRPA and other OCs.	No single system platform in place; planning to implement common programs with PRPA and other OCs.

Customer information system (CIS)	CIS supports customer validation during VPP enrollment and may support bill credits for VPP participation	Currently receiving limited CIS data via flat file each month from all four owner communities for integration into iEnergy to support customer participating in existing Efficiency Works programs.	Current legacy CIS will be replaced with new SpryPoint CIS system over the next year	Launching new VertexOne implementation in October 2025.	New CIS testing underway. Go-live still January 2026; interim systems in place to translate AMI data through an interim in-house MDM for ingestion into Banner for billing until 2026.	Automated Disconnect/reconnect integration with AMI and payment processor is in process.
Advanced metering infrastructure (AMI)	AMI supports VPP measurement and verification and load forecasting		Fully deployed with Tantalus AMI fixed network. We have transformer loading analytics using AMI and GIS data. There are numerous custom integrations with CIS and GIS	AMI fully deployed – upgrades and developments ongoing.	More than 99.5% meters deployed; developing integrations with new MDM and CIS platforms; piloting an AMI grid location awareness project with city staff volunteers.	Mass AMI deployment is complete; meter exchange cleanup efforts will continue in March/April. Less than 200 (<0.5%) customer opt-outs approved and installed. Customer web portal RFP selection is complete; contract negotiations in progress; implementation by Q4 2025.
Geographic information system (GIS)	GIS provides as-built distribution network model to DERMS to support distribution-aware VPP dispatch		Electric GIS data is currently in a geometric network model; data is fairly robust and updated regularly.	ESRI ArcGIS 10.8.1. transition to Utility network needs to be scoped/planned, etc.	Electric GIS data is currently in geometric network model and will be transitioning to utility network model (no definitive timeline yet); first pass at transitioning water/sewer to utility network is complete, with testing to start soon.	Electric data is currently in geometric network; transition to utility network is in planning stages.

Advanced distribution management systems (ADMS)	ADMS provides DERMS with an as-operated network model to support deliverability of VPP bulk electric system service. ADMS may request distribution services from VPP (e.g., load management, volt-var support).	Platte River and the OCs held a preliminary meeting to collaboration on ADMS Feb. 3. The group agreed to review Fort Collins's functional requirements prepared for a previous ADMS RFP and then to consider next steps.	No single system platform in place; planning to tenant under PRPA if needed in the future	Existing system in place but finishing contract with existing vendor. Plan to coordinate with PRPA / owner cities on use case development and exploration.	Investigating ADMS solutions that align with DERMS, potential replacement OMS, and GIS UN migration.	Will be reviewing ADMS functionality with the replacement of our OMS; requirements and use cases being documented
• **Distribution SCADA**			IGA with PRPA to manage a tenanted SCADA system	Iconics SCADA – Genesis 64 – developing roadmap to upgrade	Future SCADA decisions to be determined by ADMS decisions.	Upgrade from Survalent to OSI/AspenTech is scheduled to start in May 2025; hosted by PRPA.
• **Outage management system (OMS)**			No single system platform in place; staff tracks and manages outages across AMI and GIS platforms	Currently operating legacy system in parallel with new system from ACS OMS	Integrating Schneider OMS with L+G AMI.	Updates to existing Responder OMS through 2025; full replacement along with ADMS in 2027-2028.
• **Distribution management system (DMS)**			No single system platform in place; planning to tenant under PRPA if needed in the future	Utilizing ADMS – further discussion related to ADMS needs to be developed.	Dependent on ADMS decisions.	
• **Advanced applications**		Scope of advanced applications to be determined				

Electric rates	Electric rates combined with VPP incentives to provide value signals that influence customer adoption of DERs and willingness to enroll in the VPP	Discussions are ongoing among the Joint Rates Team and DER Advisory Committee regarding the intersection of VPP programs and electric rates. Results of these discussions will inform next steps as VPP programs are designed this year and scopes of future wholesale and retail rate studies are planned.	Working on an updated cost of service study for 2025-2027	Electric rate values updated through end of year council process. Eliminated Green Energy subscription program 2025, enhanced IQ offering, no other substantial changes. To maximize value proposition for future DERs, need to continue wholesale/retail collaboration with PRPA and other cities.	As of January 1, 2025, all revised net metering policies and rates are effective: 15-year legacy rate, new Value of Solar (VoS) rate, reduced renewable power purchase program (RPPP) rate, and community solar rate (discount or premium on residential energy rate). Rate study to take place in 2025 to determine rates and rate structure for 2026 and beyond. Collaborating with PRPA and the other OCs on rates related to DER and VPP participation.	Updated cost of service study scheduled for 2025.