



NOVEC LARGE LOAD ADJUSTMENT REQUEST

PJM LAS

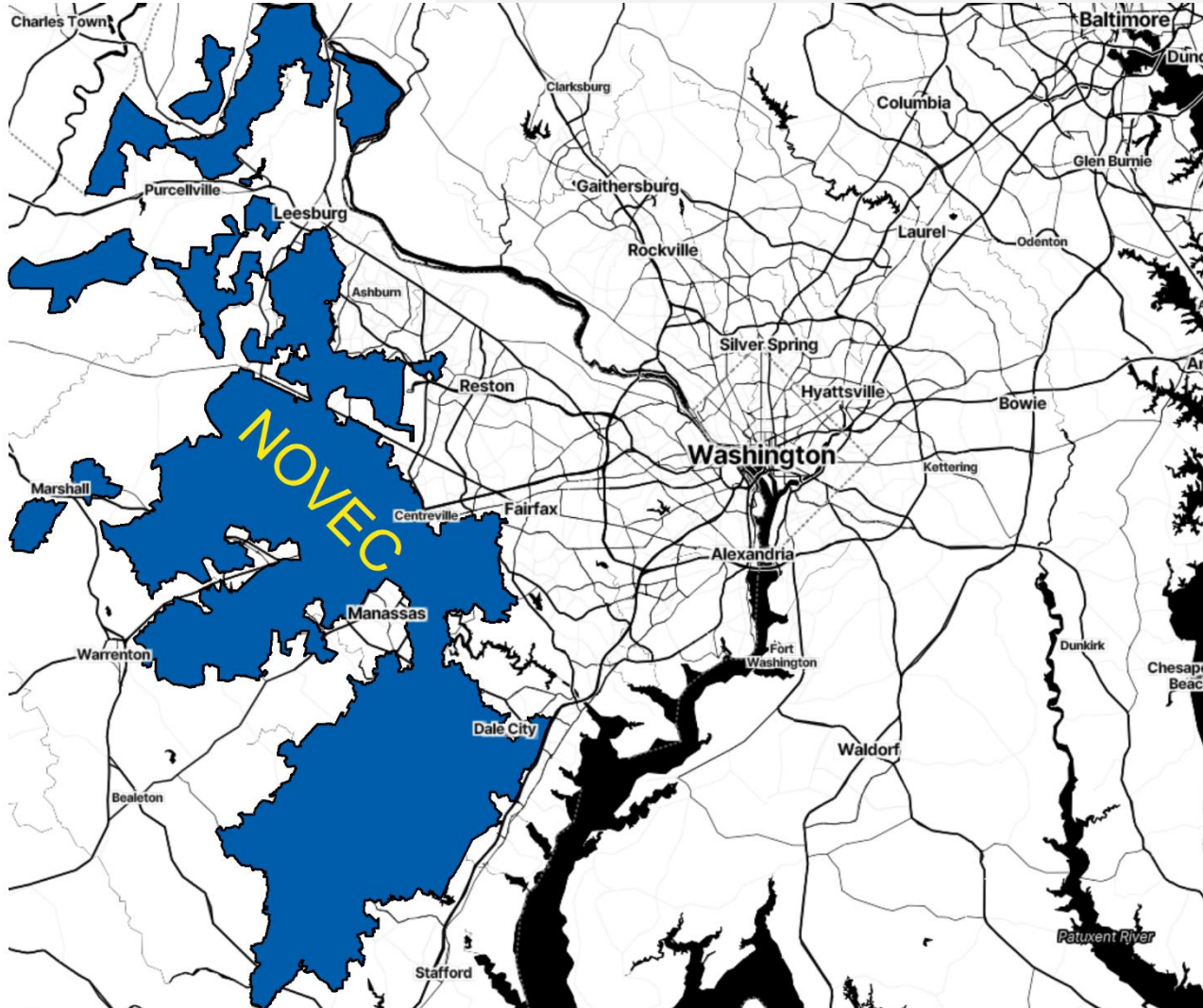
SEPTEMBER 29, 2026

OVERVIEW



- NOVEC has requested PJM incorporate an adjustment in the upcoming 2027 PJM Load Forecast to reflect projected data center growth in NOVEC service territory.
- Agenda:
 - Brief background on NOVEC
 - NOVEC's forecasting methodology
 - NOVEC 2026 data center load forecast
 - Comparison of 2026 vs 2025 forecasts
 - Alternative Scenarios
 - Q&A

ABOUT NOVEC



- NOVEC: Northern Virginia Electric Cooperative
- Electric distribution cooperative located in the Dominion transmission zone
- Zone-Area: DOM-NVEC
- Largest US electric distribution cooperative by KWH sales. [2025: 14.6 TWh]
- Service Territory: 651 square miles of primarily suburban/exurban.
- Meters: Approx. 185,000 (~285 per square mile).

NOVEC DATA CENTERS

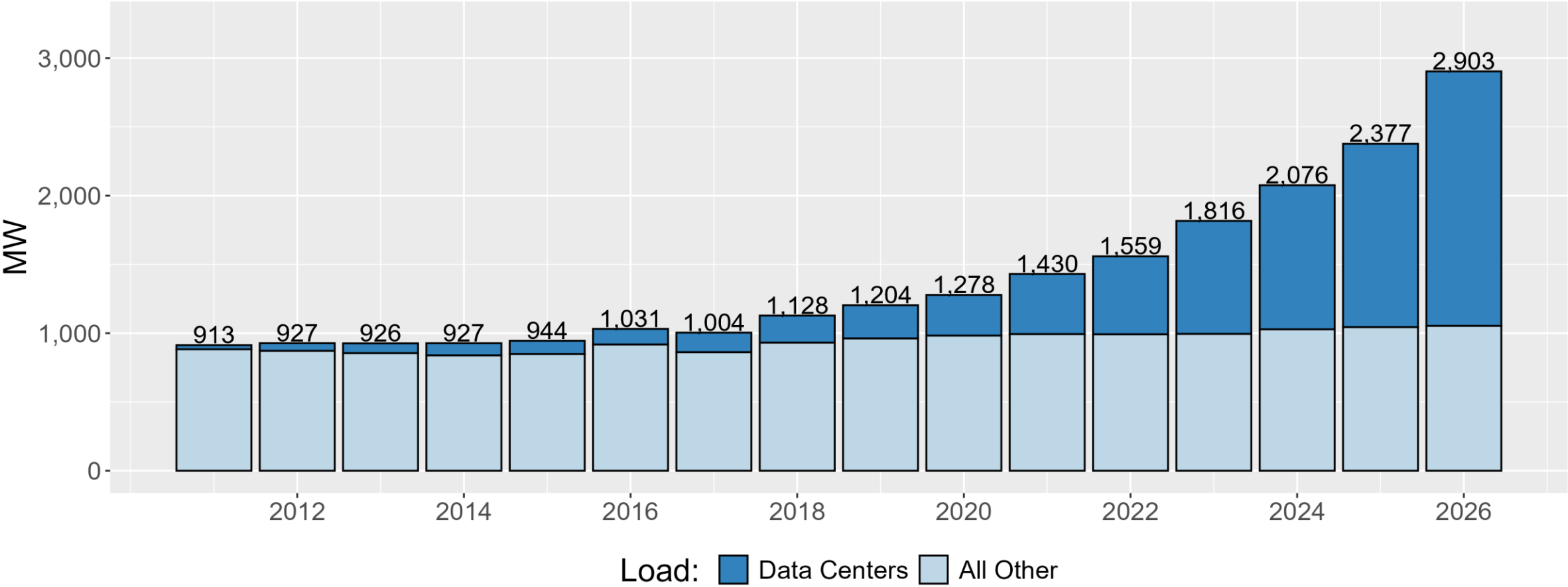


- NOVEC serves 88 data center buildings with approx. load of 1,750 MW.
 - Energy: 75% (Aug. 25 – Jul. 26)
 - Peak Load: 64% (Jul. 26)
 - Data center rate classification since 1999
- What is a data center?
 - NOVEC defines a *large customer* as a customer with a dedicated service capacity of greater than or equal to 5 MW.
 - A *data center* is a large customer that is identified as a data center during the contracting/planning process.
- NOVEC's LLA request is for all data centers in NOVEC service territory.

RAPID LOAD GROWTH FOR NOVEC

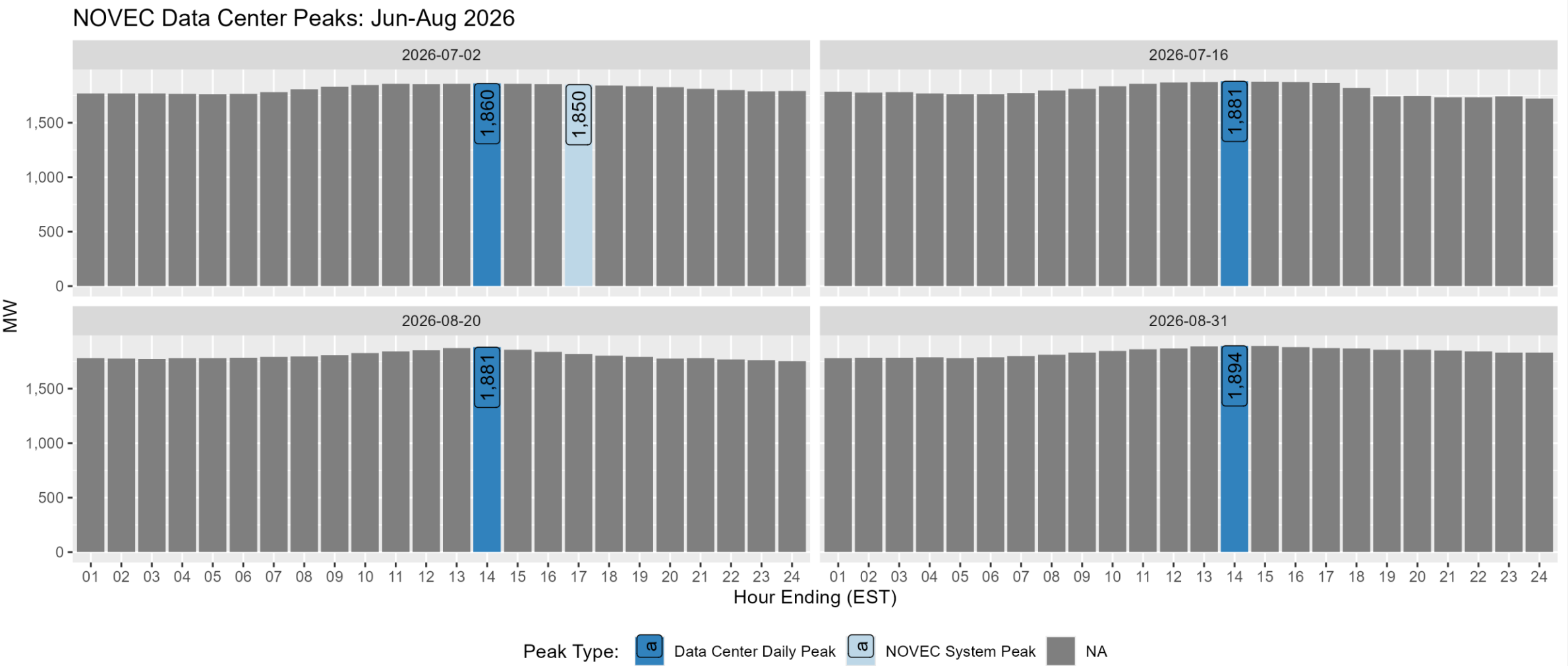


NOVEC System Summer Peak Load | 2011-2026 Actual



Source: NOVEC

SUMMER 2026: 3 PEAKS



FORECAST OVERVIEW



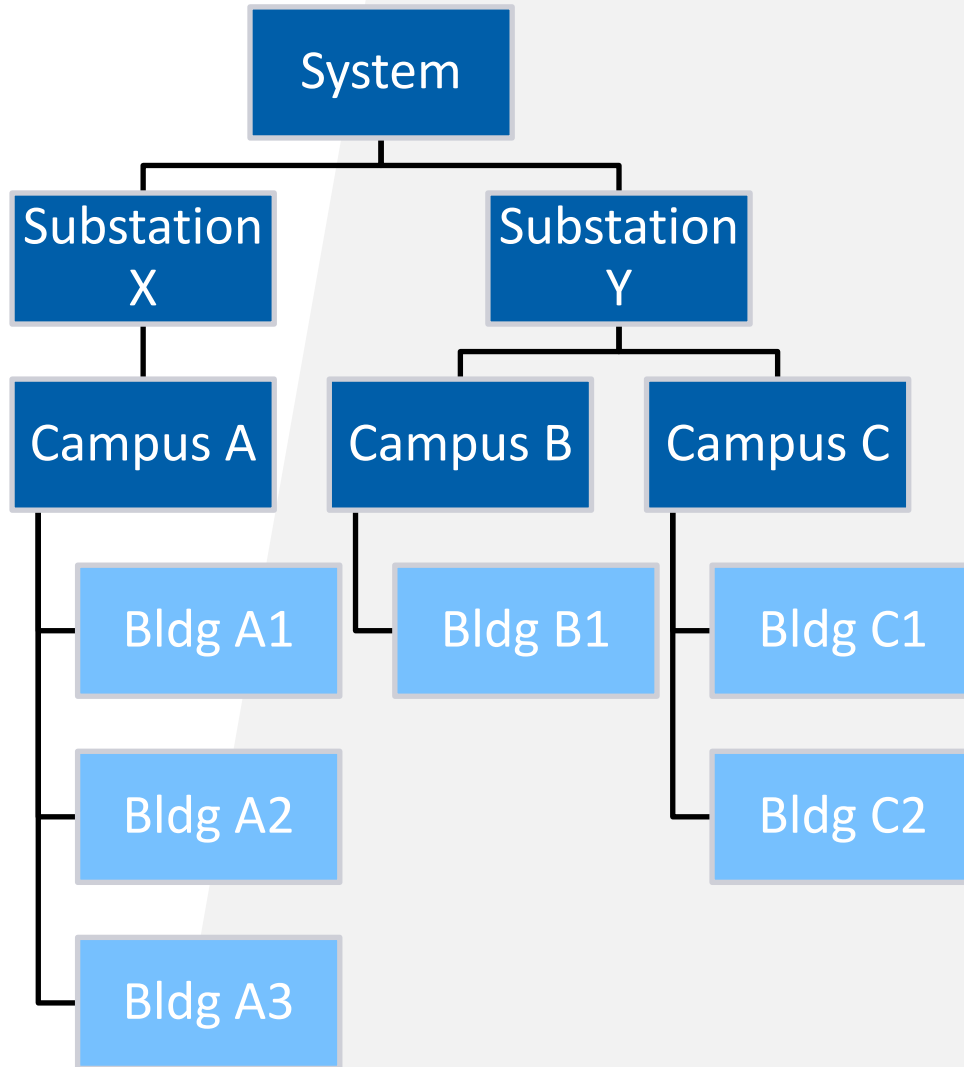
- NOVEC generates a data center load forecast as part of its load forecasting processes.
- Specialized data center process that incorporates information from customers and industry partners together with NOVEC staff analysis based on 20+ years of knowledge, experience, and continuous improvement.
- Long-term (10+ year) forecast updated annually
 - Key stakeholders:
 - NOVEC (power supply, finance, system planning, etc.)
 - Dominion Energy (transmission planning)
 - PJM (large load adjustment)
 - VA SCC & Various State Entities
- Medium-term (13 month) forecast updated monthly
 - Key stakeholders:
 - Dominion Energy (transmission operations)
- All stakeholders receive the same load forecast

DATA CENTER 101



- Key terms:
- Contracted capacity – nameplate capacity of the building’s electric service.
- Metered demand – building’s actual usage.
- Utilization rate – metered demand as a percentage of contracted capacity.

METHODOLOGY OVERVIEW



- NOVEC utilizes a bottom-up forecasting approach for data centers
 - Forecast load on individual buildings
 - Aggregate building loads to campus, substation, region, system
- Four step approach:
 1. Identify projects
 2. Produce metered load forecast for each building
 3. Eliminate/down-rate projects at high risk of failure
 4. Customer coordination

PHASE ONE: PLANNING



- **Goal:** Collect detailed information on all current and future data centers.
- **Approach:** NOVEC's data center contracting/project development queue.
- Key features:
 - Site plan including building capacities
 - Electric infrastructure to serve each project (e.g., on-site vs off-site substation)
 - Precise geographic location (parcel/address)
 - Building energization timelines
- Projects in NOVEC's development queue and active data centers are the only projects included in NOVEC's load forecast: no projects based on trend extrapolation, industry rumors, press releases, etc.
- By aligning the load forecast with the planning pipeline, we can be certain that:
 - All projects are real, verified projects
 - All projects are within NOVEC service territory
 - There are no duplicate projects

CONTRACTING/PROJECT DEVELOPMENT PROCESS



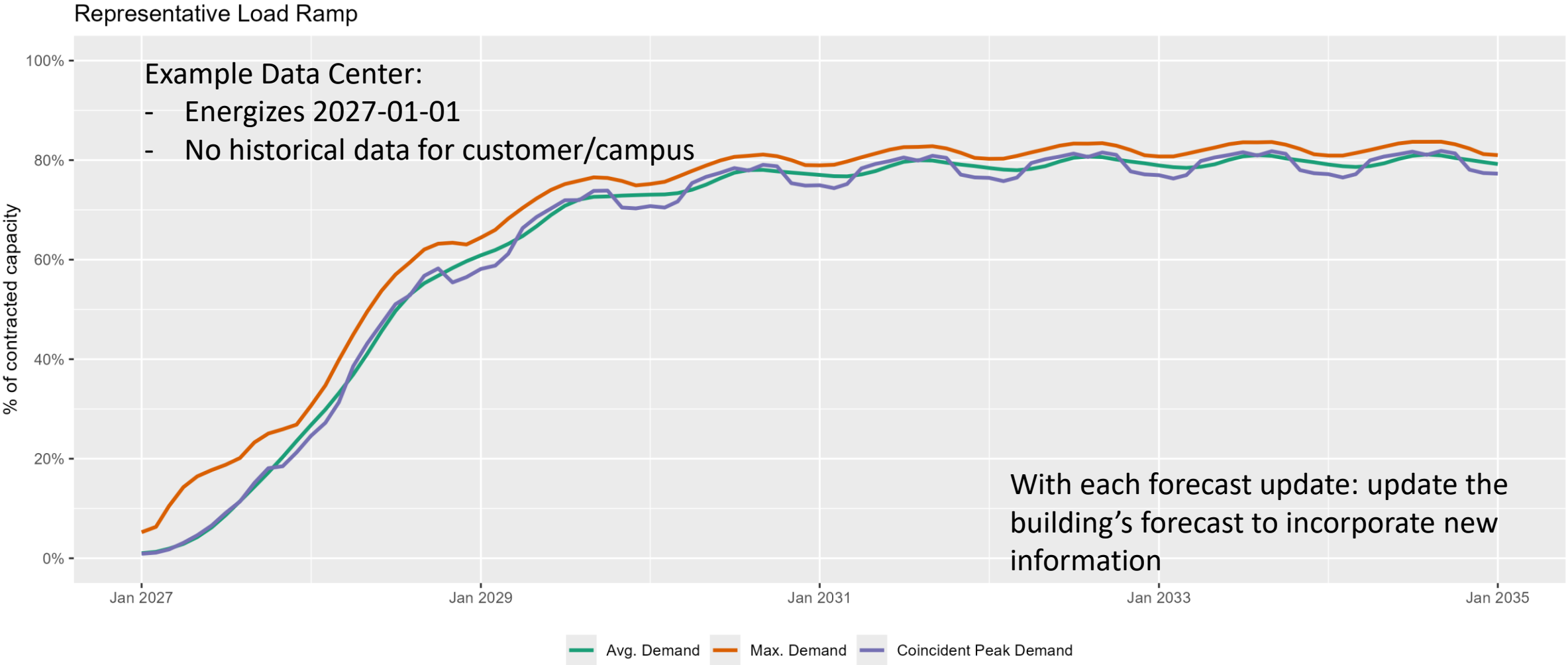
- NOVEC has developed a robust planning and contracting process for data centers using contracts with financial obligations and key milestones
- **Pre-Construction Commitment**
 - Non-refundable deposit
 - Technical specifications for project including precise geographic location
- **Construction Commitment [5+ years prior to energization]**
 - *Begins Contribution in Aid of Construction (CIAC) payments*
 - Finalized project scope for electric infrastructure
 - Long lead-time item procurement
 - Construction begins
- **Electric Service Obligation [3+ years prior to energization]**
 - Electric Service Agreement (ESA) executed including tariff
 - Project energized

PHASE TWO: FORECASTING



- **Goal:** Generate a metered load forecast for each building identified in the planning phase
- **Approach:** Statistical modeling
- Econometric models were developed and are used by NOVEC staff to predict building-level utilization rates (metered demand/contracted capacity) conditional on:
 - Calendar factors (day of week/day of year)
 - Weather factors (cooling degree days)
 - Past behavior at the customer, campus, and/or building-level when available
- Building-level forecasts are aggregated to campus/substation/region/system as needed

EXAMPLE UTILIZATION RATE FORECAST



PHASE THREE: SCREENING



- **Goal:** Eliminate or down-rate projects at risk of failure
- **Approach:** Holistic review of every project prior to each forecast update with expert analysis from NOVEC planning team
- Screening parameters include (not exhaustive):
 - Ownership/control of land
 - Firm site plan
 - Viable path to electric service
 - Viable path to zoning
- Lessons Learned: Screening on contract status alone is not sufficient to fully characterize the risk of project failure

PROJECT SCREENING CATEGORIES



Viable

- Viable path to service and highly likely to come to fruition
- Include in load forecast

Moderate-Risk

- Potential path to service but outstanding concerns must be resolved
- Down-rate by 50%

High-Risk

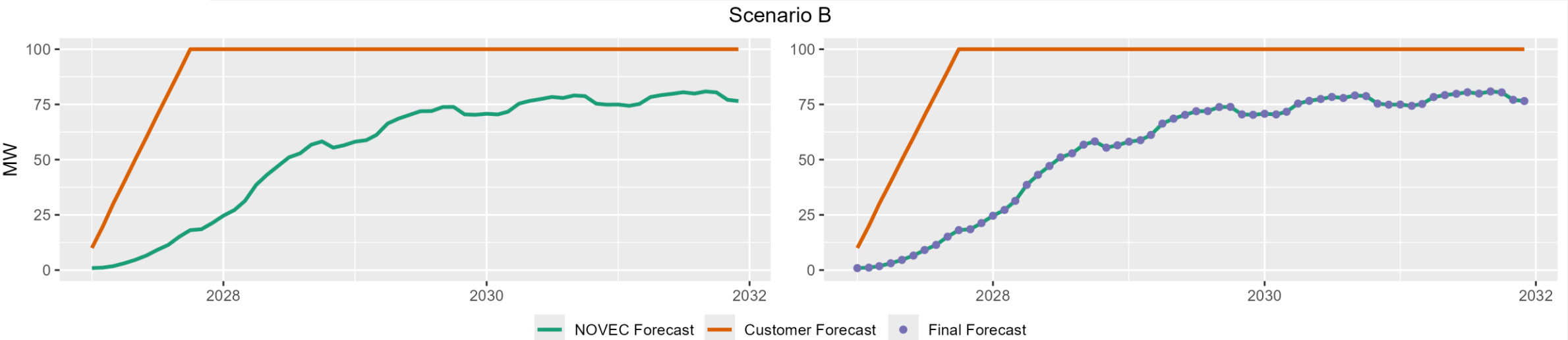
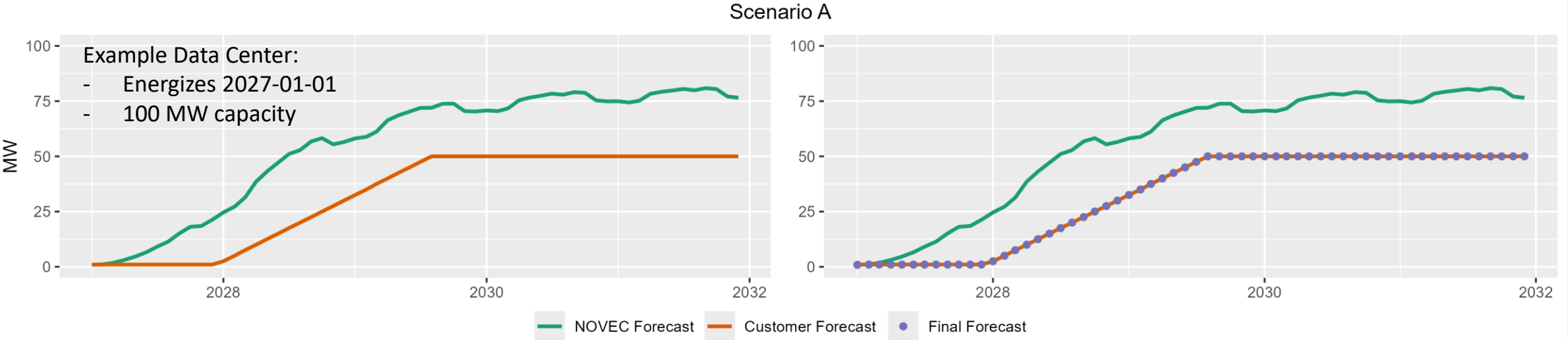
- Critical issues prevent the project from progressing in its current state
- Exclude from load forecast

PHASE FOUR: CUSTOMER COORDINATION



- *New for 2026*
- **Goal:** Align NOVEC's forecasts with customer plans.
- **Approach:** Engagement with large load customers to exchange load forecasts.
- In summer 2026, NOVEC requested updated load forecasts from each large load customer and in parallel developed our own independent forecast.
- NOVEC developed a final forecast by taking the *lower* of the two forecasts.
- Creates a mechanism for the customer to indicate they will not ramp quickly or will not run at high utilization without allowing unreasonably high customer guidance to bias NOVEC's forecasts.

CUSTOMER COORDINATION EXAMPLE



JULY 2026 FORECAST VINTAGE



- July 2026 Load Forecast:
 - Latest project timelines including Dominion Transmission Queue.
 - Load models estimated with data through July 2026.
 - All projects have been screened and adjusted for viability.
 - Final forecasts are capped at customer-provided values.
- *Does not include the impact of IRAS, 202(c) backup generation actions, new customer DR, or any other load curtailment programs.*
- Forecast uses:
 - Has been distributed to NOVEC internal teams, DOM transmission planning, and DOM transmission operations.
 - NOVEC is requesting PJM incorporate this forecast as an adjustment to the upcoming 2027 PJM Load Forecast.

RERRA REVIEW



- NOVEC engaged the Virginia State Corporate Commission (VA SCC) for review prior to submission to PJM.
- RERRA Review Timeline:
 - Aug 7: NOVEC & VA SCC Staff meet to review NOVEC forecasting process and load forecast.
 - Aug 21: NOVEC submits historical forecasts and data to VA SCC Staff for Virginia *HB 892*.
 - Aug 28: VA SCC Staff complete the RERRA review and notifies NOVEC.

NEAR-TERM FORECAST JULY 2026 FORECAST VINTAGE

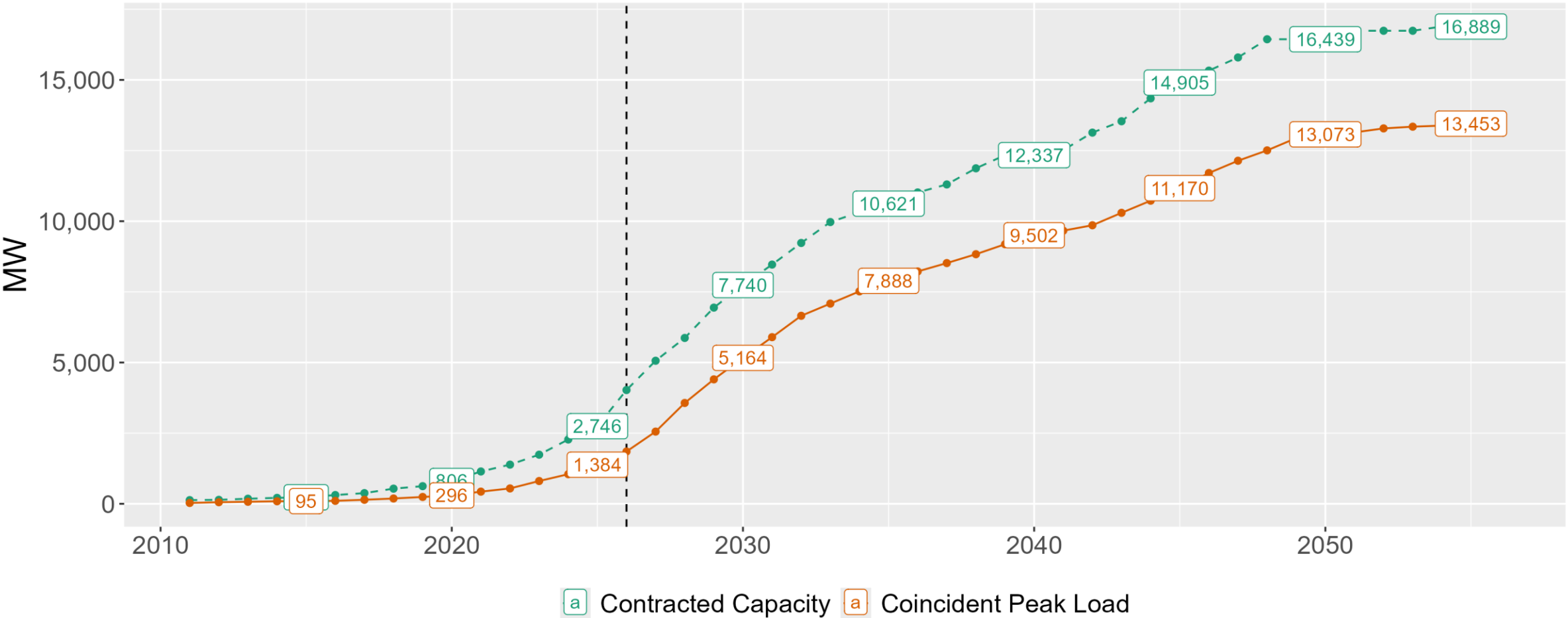


	Actual					Forecast				
	Jul 2022	Jul 2023	Jul 2024	Jul 2025	Jul 2026	Jul 2027	Jul 2028	Jul 2029	Jul 2030	Jul 2031
Data Centers (#)	38	49	58	68	88	104	117	130	139	147
Yr-Yr Change	3	11	9	10	20	16	13	13	9	8
Contracted Capacity (MVA)	1,386	1,738	2,276	2,746	4,025	5,062	5,869	6,942	7,740	8,465
Yr-Yr Change	242	352	538	470	1,279	1,037	807	1,073	798	725
Coincident Peak Load (MW)	543	806	1,048	1,384	1,850	2,555	3,568	4,403	5,164	5,897
Yr-Yr Change	113	263	242	336	466	705	1,013	835	761	733

LONG-TERM FORECAST JULY 2026 FORECAST VINTAGE



NOVEC Data Center Forecast



LONG-TERM FORECAST JULY 2026 FORECAST VINTAGE



July Capacity (MVA)

Zone	Status	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
DOM-NVEC	ESO+CC	5,062	5,759	6,372	6,716	6,776	7,179	7,457	7,513	7,513	7,513	7,513	7,513	7,513	7,513	7,513	7,513	7,513	7,513	7,513	7,513	7,513
DOM-NVEC	CC ONLY	0	100	560	1,004	1,669	2,032	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344
DOM-NVEC	PRE-CC	0	10	10	20	20	20	170	465	765	1,161	1,445	2,016	2,481	2,481	2,661	3,279	3,681	4,492	5,049	5,472	5,938
DOM-NVEC	TOTAL	5,062	5,869	6,942	7,740	8,465	9,230	9,970	10,321	10,621	11,017	11,301	11,872	12,337	12,337	12,517	13,135	13,537	14,348	14,905	15,328	15,794

July Coincident Peak Demand (MW)

Zone	Status	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
DOM-NVEC	ESO+CC	2,555	3,565	4,282	4,705	4,981	5,272	5,475	5,650	5,750	5,800	5,816	5,822	5,824	5,825	5,825	5,826	5,827	5,827	5,825	5,825	5,826
DOM-NVEC	CC ONLY	0	1	116	451	902	1,365	1,573	1,745	1,835	1,876	1,893	1,901	1,905	1,907	1,908	1,909	1,910	1,910	1,909	1,910	1,910
DOM-NVEC	PRE-CC	0	2	6	8	14	15	37	122	302	546	810	1,108	1,456	1,771	1,933	2,121	2,560	2,989	3,436	3,971	4,404
DOM-NVEC	TOTAL	2,555	3,568	4,403	5,164	5,897	6,653	7,084	7,518	7,888	8,222	8,518	8,832	9,185	9,503	9,666	9,857	10,297	10,726	11,170	11,706	12,139

FORECAST UPDATES: 2025 VS 2026

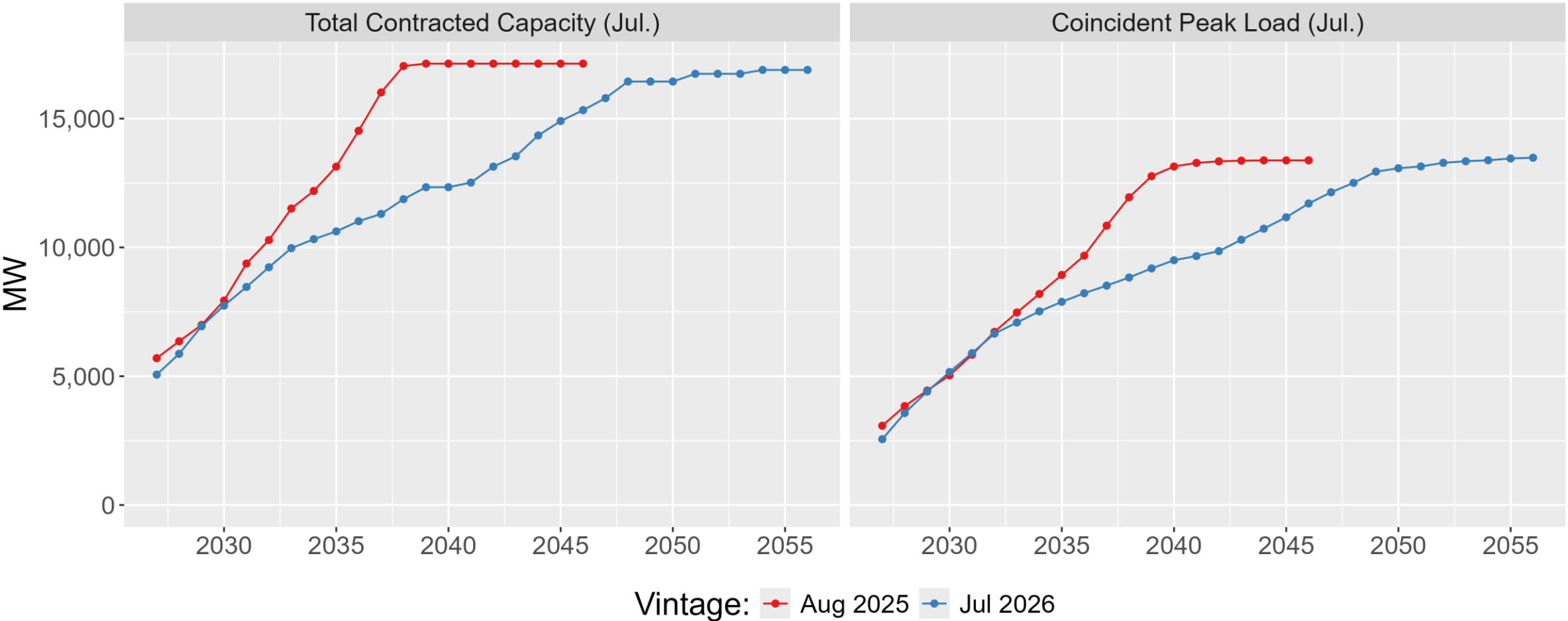


- Updates for the 2026 Forecast:
 1. Updated in-service dates & additional project timeline contingencies
 - Net Impact: modest reduction in near-term growth
 2. Re-trained load models with latest metered load readings
 - Net Impact: modest increase in ramp rates and long-run utilization
 3. New information on Dominion Transmission Queue
 - Net Impact: *Substantial* reduction in medium-term growth
 4. New projects added and failure of Digital Gateway
 - Net Impact: no change in long-term capacity/load
 5. Adjustment for customer provided forecasts
 - Net Impact: very small reduction in near-term growth

FORECAST UPDATES: 2025 VS 2026



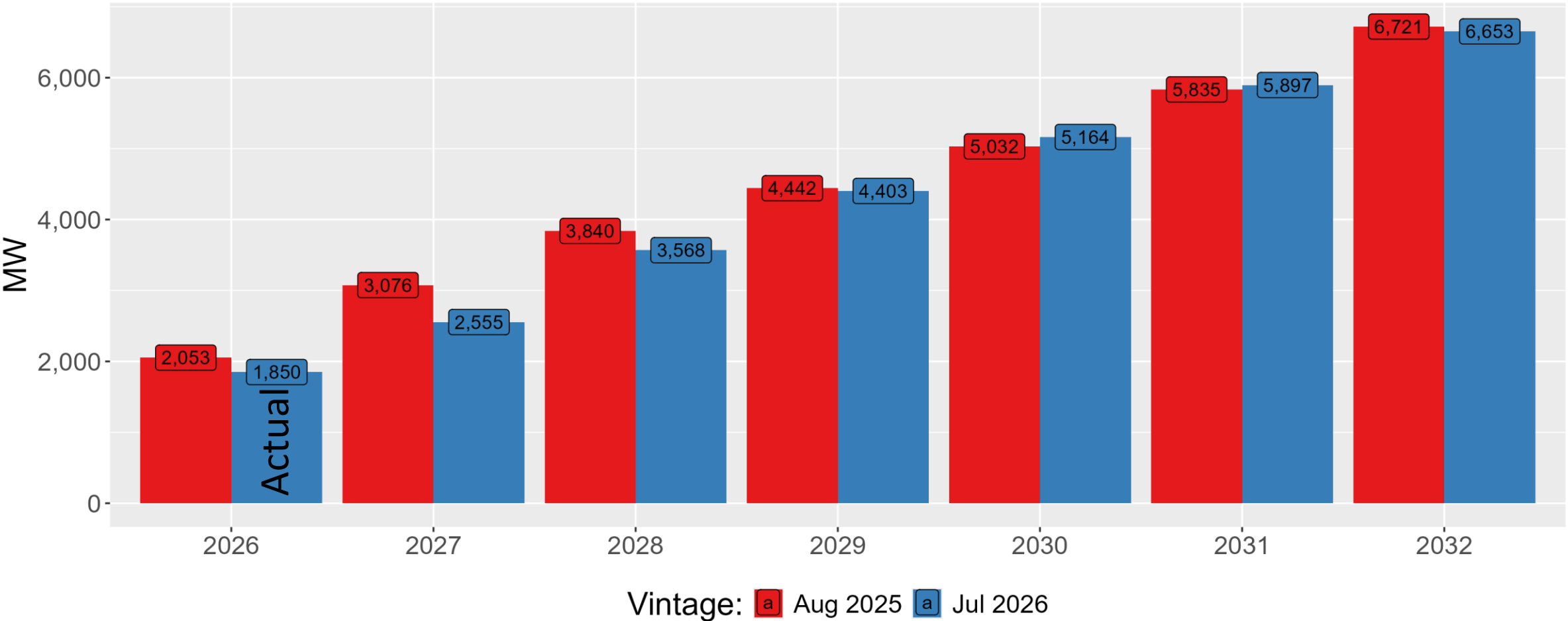
NOVEC Data Center Forecast | 2025 vs 2026



FORECAST UPDATES: 2025 VS 2026



NOVEC Data Center Peak Load Forecast | 2025 vs 2026



ALTERNATIVE SCENARIOS

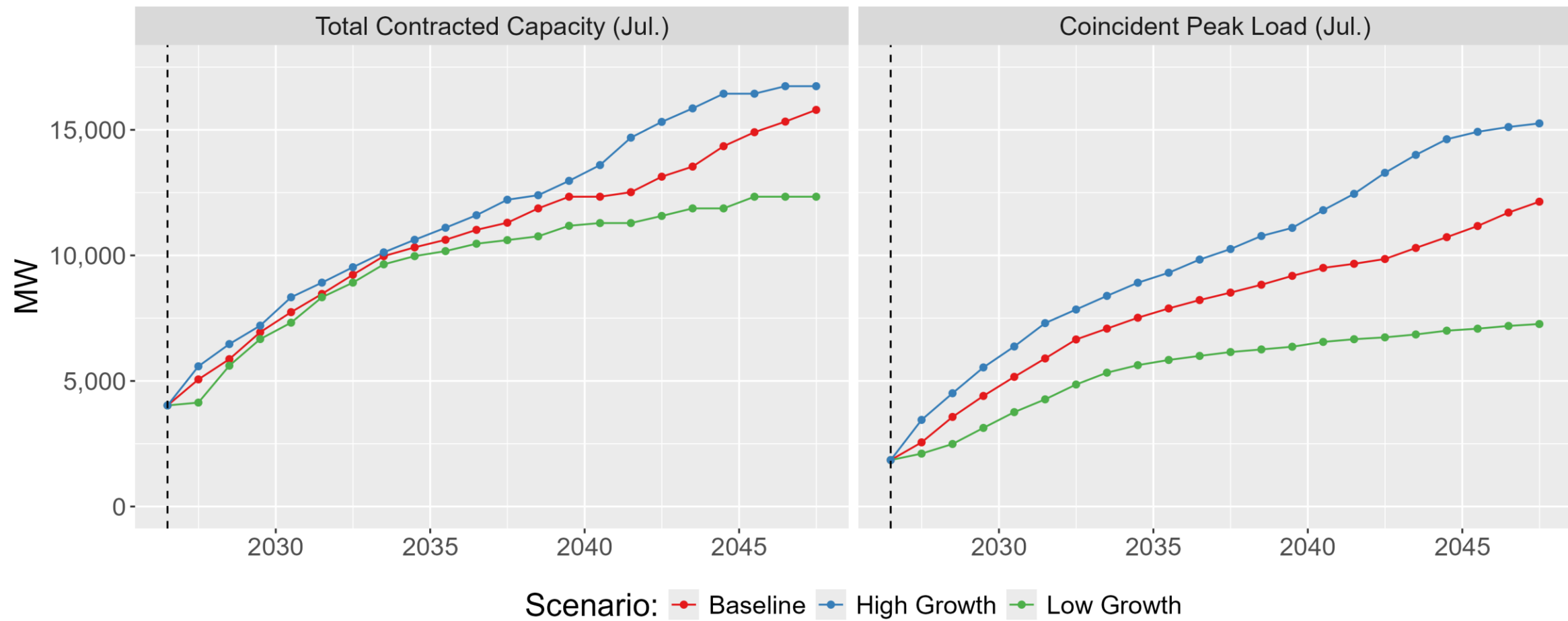


- Alternative scenarios presented for discussion and illustrative purposes only.
 1. Baseline Scenario: as discussed.
 2. Low Growth Scenario
 - Additional 6-month delay to all projects and slower progression of Transmission Queue.
 - Simulated 10th percentile demand for all data centers.
 3. High Growth Scenario
 - Best case scenario energization for projects in construction and faster progression of Transmission Queue.
 - Simulated 90th percentile demand for all data centers.
 4. Unlimited BES Scenario
 - No Transmission Queue.
 - Baseline demand.

ALTERNATIVE SCENARIOS



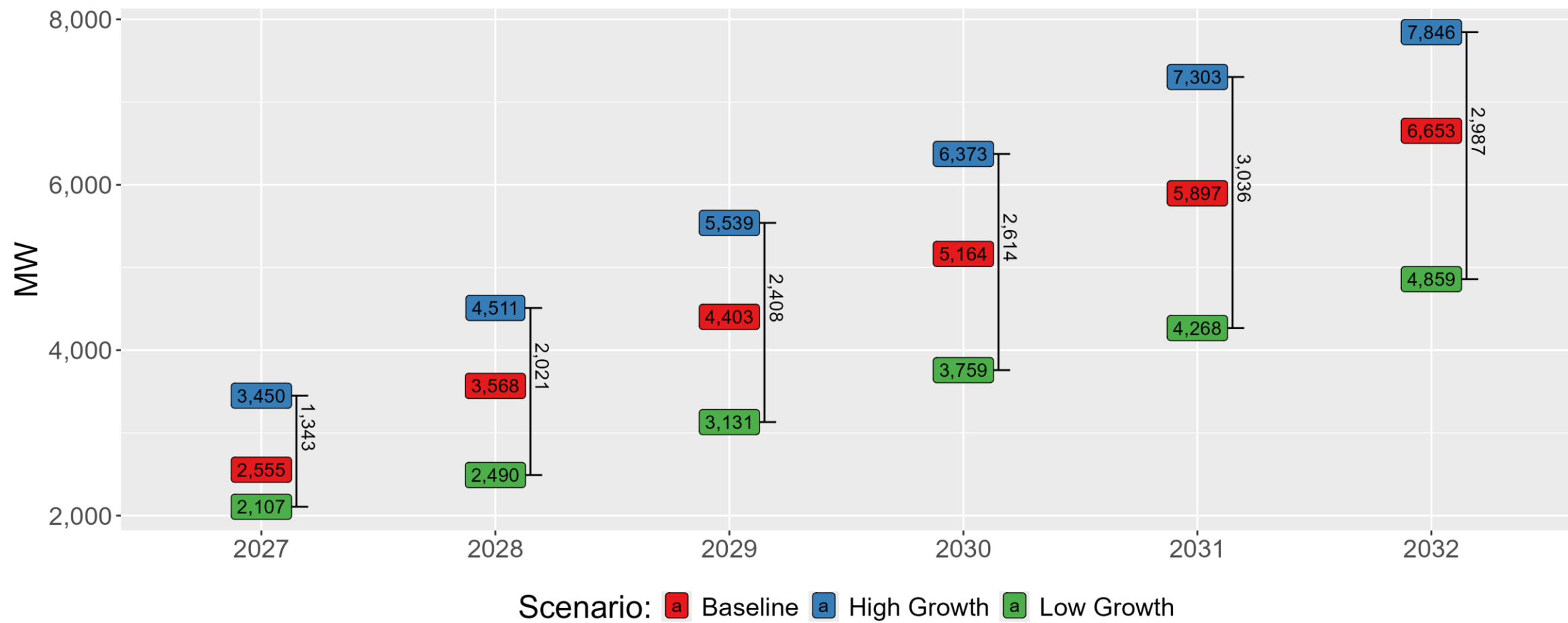
NOVEC Data Center Forecast Scenarios



ALTERNATIVE SCENARIOS



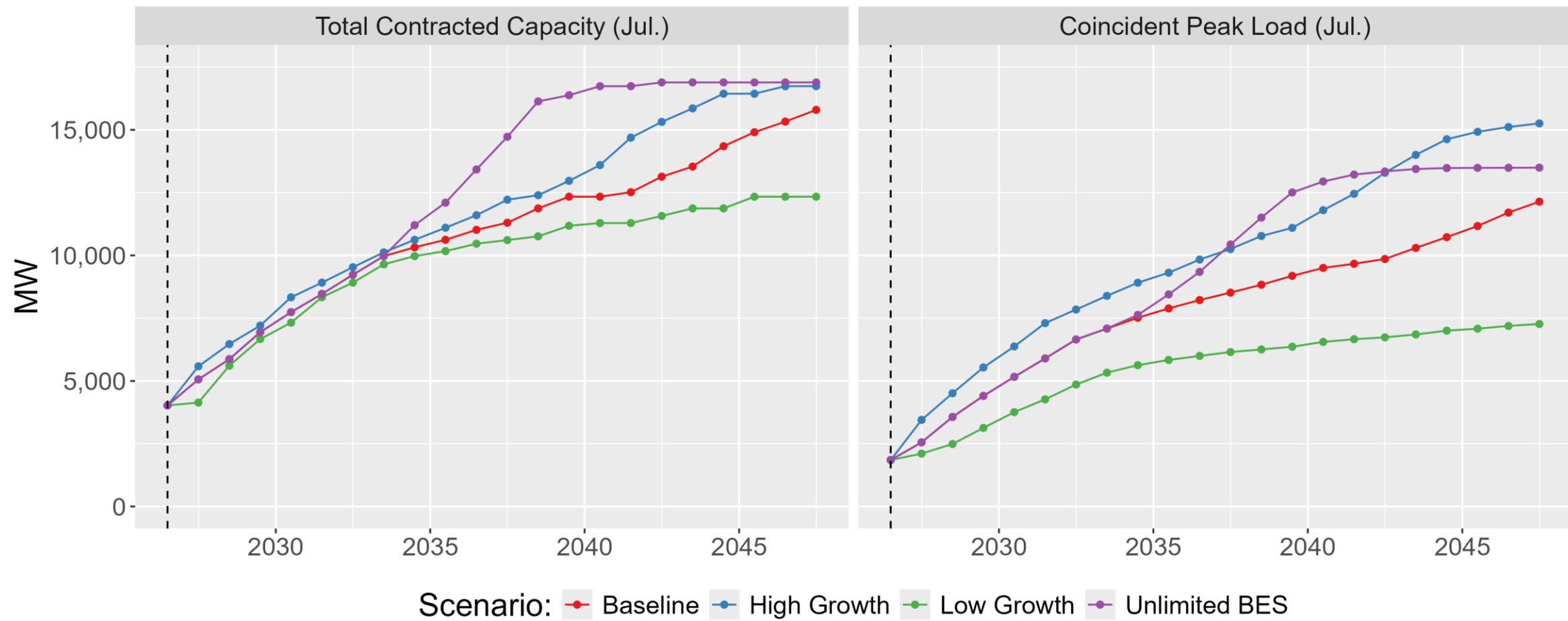
NOVEC Data Center Forecast Scenarios | Summer Peak Load



ALTERNATIVE SCENARIOS



NOVEC Data Center Forecast Scenarios



SUMMARY



- Goal: Present on NOVEC's process for developing load forecasts for data centers and review the 2026 load forecast.
- Key takeaways:
 - NOVEC has a sound, defensible process for producing data center load forecasts based on 20+ years of knowledge, experience, and continuous improvement.
 - NOVEC's baseline forecast data center forecast should be incorporated as an adjustment in the 2027 PJM Load Forecast.
- NOVEC LLA Request Timeline:
 - ✓ Aug: RERRA Review
 - ✓ Sep 4: LLA Request submission
 - ✓ Sep 29: Stakeholder presentation at PJM LAS
 - ☐ Oct-Dec: Continued engagement with PJM staff