

Readiness Criterion Identifier	Readiness Category	Criteria	Measurable Elements	Threshold	Owner	Status	Evidence	Tariff Mapping
1	Prospective WEIM Entity Full Network Model Integration	Generation, Interchange and Load comparison	Load, WEIM Internal Intertie and WEIM External Interties, and Generating Unit definition in the Full Network Model is consistent with the Load, WEIM Internal Intertie and WEIM External Interties, and Generating Unit definition in the exported prospective WEIM Entity network model file that it delivered to the CAISO.	Data matches within 10%, measured in MW capacity to start parallel operation, and within 5% before full activation. Any Discrepancies are accounted for in terms of imbalance adjustment	CAISO	On Track		Tariff section 29.2(b)(7)(A)(i)
2	Prospective WEIM Entity Full Network Model Integration	Comparison of SCADA measurement	SCADA measurements used in prospective WEIM Entity EMS model match the measurements observed by the CAISO through the CAISO EMS model	Critical and used SCADA measurements match 90% to start parallel operation and 95% before full activation, measured in MW, outside of any exception in EMS model	CAISO	On Track		Tariff section 29.2(b)(7)(A)(ii)
3	Prospective WEIM Entity Full Network Model Integration	State Estimator solution	CAISO state estimator solution is equivalent or superior to the prospective WEIM Entity state estimator solution for its Balancing Authority Area.	State Estimator solutions converge >90% of the time in two days before parallel operation and three days before full activation. Solution differences within 10% before parallel operation and 5% before full activation measured in MW or justified due to different external BAA modeling	CAISO	On Track		Tariff section 29.2(b)(7)(A)(iii)
4	Prospective WEIM Entity Full Network Model Integration	Non-Conforming Load, Behind-the-Meter Generation, Pseudo Ties, and Dynamic Schedules	Physical representation of the prospective WEIM Entity's network matches the Base Market Model that accounts for non-conforming load, behind-the-meter generation, pseudo-ties, and dynamic schedules, and third party transmission service provider and path operator information that supports WEIM Transfers and Real-Time Dispatch in the Energy Imbalance Market, as applicable	Prospective WEIM Entity major non-conforming loads > 5% of prospective WEIM Entity total actual load in MW are modeled separately from conforming load in market model	CAISO	On Track		Tariff section 29.2(b)(7)(A)(iv)
5	Agreements	Execution of Necessary Agreements	The prospective WEIM Entity has executed all necessary agreements.	The prospective WEIM Entity will execute all agreements, as outlined in Section 5 of the WEIM BPM within the required timelines outlined in Section 5.	JOINT	Complete	Black Hills provided copies of all executed agreements. CAISO affirmed that all planned agreement tasks are complete.	Tariff section 29.2(b)(7)(K)(i)

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6	Operations Training	Completion of mandatory training courses	Prospective WEIM Entity operators who will have responsibility for WEIM operations, transactions and settlements, will complete CAISO training modules.	Prospective WEIM Entity operators will Complete training and close-of-training assessment in the appropriate timeframes as outlined in “100 series” – an introduction to Energy Imbalance Market training “200 series” – the specific hourly and daily tasks and duties for normal operation training module; and “300 series” – the assessment of market results and response to contingencies and abnormal situations training module.	Black Hills	On Track		Tariff section 29.2(b)(7)(B)
7	Forecasting Capability	Load forecast capability	Definition of WEIM demand forecast boundaries based on the conforming and non-conforming load characteristics, as applicable. <ul style="list-style-type: none">Accuracy of the CAISO forecast of WEIM demand based on historical actual load data for the defined WEIM demand forecast boundaries.Identification of weather station(s) locations used in forecasting, if applicable.	All Plant Information (PI) tags and historical data for defined load area(s), and non-conforming load, if applicable, compared with load forecasts provided from CAISO (if CAISO load forecast used).	CAISO	Not Started		Tariff sections 29.2(b)(7)(C)(i)-(iii)
8a	Forecasting Capability	Variable Energy Resource (VER) forecast capability	Identification of the source of VER forecasts. (If a participating wind or solar unit requires a CAISO forecast, then BPM and Tariff requirements apply.)	Forecasting entity must demonstrate delivery of Unit MW forecast at 5 min intervals for at least three hours ahead. Forecasting entity must also provide base schedule by T-75, T-55 and T-40. WEIM Entity provides to CAISO real-time MW production PI tags.	CAISO	Not Started		Tariff section 29.2(b)(7)(C)(iv)
8b	Forecasting Capability	Hybrid Resources forecast capability	Identification of all Hybrid Resources, source of Hybrid Resource forecasts, and confirmation applicable tariff and BPM requirements are met.	Forecasting entity must demonstrate delivery of Unit MW forecast at 5 min intervals for at least three hours ahead. Forecasting entity must also provide base schedule by T-75, T-55 and T-40. For participating hybrid resources WEIM entity submits documents required by Appendix Q: Site information sheet, topo map, shapefile. WEIM entity provides real-time MW production PI tags for all Resources, and metrological measurements for participating hybrid resources required by Appendix Q.	CAISO	Not Started		Tariff section 29.2(b)(7)(C)(v)

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9	Forecasting Capability	Flexible capacity requirements	CAISO has established flexible capacity requirements for the prospective WEIM Entity Balancing Authority Area and the combined WEIM Area including the prospective WEIM Entity	The CAISO has received and stored all historical data from the prospective WEIM Entity necessary and sufficient for the CAISO to perform the flexible ramp requirement.	CAISO	Not Started		Tariff section 29.2(b)(7)(K)(iv)
10	Balanced Schedules	Base schedule balancing capability	The prospective WEIM Entity Scheduling Coordinator demonstrates its ability to balance WEIM demand and WEIM supply for the prospective WEIM Entity's Balancing Authority Area	90% or greater of base schedules balance tests during monitored hours are within 10% average imbalance of load forecast over one day period before parallel operation, and 5% average over five full days before full activation. The CAISO will provide examples of MW thresholds for each prospective WEIM Entity to indicate a reasonable threshold as it applies to a given WEIM Entity and indicate the potential implications of a swing from 5% over to 5% under forecast in one hour to the next.	Black Hills	On Track		Tariff section 29.2(b)(7)(D)(i)
11	Balanced Schedules	Flexible ramping sufficiency test capability	The prospective WEIM Entity \ Scheduling Coordinator demonstrates its ability to pass the flexible ramping sufficiency test.	Passes 90% of the time or greater over monitored hours of one day before parallel operation and five non-consecutive days before full activation.	Black Hills	On Track		Tariff section 29.2(b)(7)(D)(iii)
12	Balanced Schedules	Capacity test capability	The prospective WEIM Entity Scheduling Coordinator demonstrates its ability to pass capacity test	Passes 90% of the time or greater over monitored hours of one day before parallel operation and five non-consecutive days before full activation. The CAISO will explain the implications of any potential issues with the reliability of an WEIM Entity to meet its capacity requirements.	CAISO	On Track		Tariff section 29.2(b)(7)(D)(ii)
13	Operating Procedures	CAISO operating procedures (relevant to WEIM operations)	The prospective WEIM Entity signs CAISO non-disclosure agreement and receives appropriate CAISO "public" and "restricted" operating procedures	Operating procedures NDA signed by the prospective WEIM Entity. The prospective WEIM Entity receives CAISO operating procedures four months prior to the parallel operations date.	JOINT	Complete	Black Hills confirmed that they have been given access to all publicly available Operations documents available on CAISO website	Tariff section 29.2(b)(7)(K)(i)
14	Operating Procedures	Prospective WEIM Entity operating procedures	The prospective WEIM Entity operating procedures are defined, updated, and tested for the WEIM Entity Scheduling Coordinator	The prospective WEIM Entity operating procedures are updated tested and implemented prior to parallel operations date.	Black Hills	On Track		Tariff section 29.2(b)(7)(K)(ii)
15	System Readiness & Integration	Functional Testing	The prospective WEIM Entity and the CAISO will test the functional and system elements in accordance with functional and system testing documentation posted on the CAISO website	All tasks identified in the functional and system testing documentation are complete and will not have any issues deemed significant. Any exceptions will be explained or have an interim solution that is functionally equivalent.	Black Hills	Complete	CAISO reviewed the evidence provided; based on the attached test results, BlackHills has met readiness criteria. Email and document saved in Readiness folder.	Tariff section 29.2(b)(7)(E)(i)

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16	System Readiness & Integration	System Integration	The prospective WEIM Entity and CAISO will test system integration testing in accordance with the system integration testing documentation posted on the CAISO website	All tasks identified in the system integration testing documentation are complete and will not have any issues deemed significant. Any exceptions will be explained or have an interim solution that is functionally equivalent.	Black Hills	Complete	CAISO reviewed the evidence provided; based on the attached test results, BlackHills has met readiness criteria. Email and document saved in Readiness folder.	Tariff section 29.2(b)(7)(E)(ii)
17	System Readiness & Integration	The prospective WEIM Entity system access complete	All prospective WEIM Entity employees who require system access to perform WEIM-related job functions identified and have necessary certificates.	All prospective WEIM Employees performing job functions for WEIM market are identified. All CAISO issued certificates are requested within the appropriate timeframes. All identified employees provided the necessary WEIM system access certificates.	Black Hills	Not Started		Tariff section 29.2(b)(7)(E)(iii)
18	System Readiness & Integration	ISO - prospective WEIM Entity interfaces	Data interfaces between prospective WEIM Entity's systems and CAISO systems are tested	ISO and prospective WEIM Entity identify significant data interface issues. WEIM Entity and CAISO executives to approve exceptions.	JOINT	Complete	CAISO reviewed the evidence provided; based on the attached test results, BlackHills has met readiness criteria. Email and document saved in Readiness folder.	Tariff section 29.2(b)(7)(E)(i)
19	Market Simulation	Day in the life simulation	The prospective WEIM Entity operators are able to meet the market timelines	The prospective WEIM Entity grid operations staff complete end-to-end daily market workflow with no critical defects.	JOINT	Complete	CAISO reviewed the evidence provided; based on the attached test results, BlackHills has met readiness criteria. Email and document saved in Readiness folder.	Tariff section 29.2(b)(7)(I)(ii)
20	Market Simulation	Structured scenarios simulation	The prospective WEIM Entity operators execute and pass all structured scenarios provided by CAISO	All significant issues resolved or have an interim solution that is functionally equivalent.	JOINT	On Track		Tariff section 29.2(b)(7)(I)(iii)
21	Market Simulation	Unstructured scenarios simulation	The prospective WEIM Entity operators execute and pass all unstructured scenarios provided by prospective WEIM Entity	All significant issues resolved or have an interim solution that is functionally equivalent.	JOINT	Not Started		Tariff section 29.2(b)(7)(I)(iv)
22	Market Simulation	Market results reports	Market results are appropriate based on inputs	The prospective WEIM Entity and CAISO executive project sponsors approve the market results reports during market simulation	Black Hills	Not Started		Tariff section 29.2(b)(7)(I)(v)
23a	Market Simulation	Market quality review	Prices are validated based on input data	Market simulation prices and MWs schedules/dispatches are validated by CAISO market quality team for entry into parallel operations	CAISO	Not Started		Tariff section 29.2(b)(7)(I)(vi)
23b	Parallel Operations	Market quality review	Prices are validated based on input data	Parallel operations prices and MWs schedules/dispatches are validated by the CAISO market quality team	CAISO	Not Started		Tariff section 29.2(b)(7)(I)(vi)

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24	Market Simulation	The prospective WEIM Entity Identification	Validation of SCID's and Resource ID's	The CAISO has established and the prospective WEIM Entity has tested all necessary SCIDs and Resource IDs established for the prospective WEIM Entity's Balancing Authority Area	JOINT	On Track		Tariff section 29.2(b)(7)(I)(i)
25	Settlements	ISO Settlement Statements and Invoices published to the prospective WEIM Entity and WEIM Participating Resources	The CAISO Settlement statements and invoices match the operational data published to stakeholders or fed into settlement system and the resulting calculations correspond to the formulas defined in ISO's tariff and BPMs	Monthly settlement statement and invoice with corresponding daily statements produced during market simulation and parallel operations are verifiably accurate against available data.	JOINT	Not Started		Tariff section 29.2(b)(7)(F)(i)
26	Settlements	The prospective WEIM Entity settlement statements and invoices reflect accurate allocations to the prospective WEIM Entity customers prior to financially binding operations.	Verification that settlement statements and invoices accurately reflects system and market data	The prospective WEIM Entity settlement statements and invoices that allocate charges and credits to its customers accurately reflect system and market data during parallel operations.	JOINT	Not Started		Tariff section 29.2(b)(7)(F)(ii)
27	Monitoring	Data monitoring	Sufficient and adequate data is available to the CAISO and the Department of Market Monitoring	All required market monitoring data is available during testing and during post go-live for the key metrics (any exceptions will be addressed). CAISO will provide a market report that will provide publicly available information to all market participants.	CAISO	Not Started		Tariff section 29.2(b)(7)(K)(v)
28	Parallel Operations Plan	Deployment plan	Parallel operations run consistently and in accordance with the timeframe set forth in the prospective WEIM Entity specific parallel operation plan	Parallel operations runs consistently within normal production CAISO Market disruption tolerances.	CAISO	Not Started		Tariff section 29.2(b)(7)(J)
29	Outage Management System	Transmission and generation outage submittal and retrieval	The prospective WEIM Entity will verify its ability to submit and retrieve outage information with the CAISO	The prospective WEIM Entity validate their ability to submit and retrieve transmission out-of-service outages, generation Pmax derates, generation Pmin rerates, and generation out-of-service outage tickets within the required timelines.	JOINT	Not Started		Tariff section 29.2(b)(7)(G)
30	Communications between the CAISO and the	Voice and/or electronic messaging	Implemented process and procedures used for voice and/or electronic messaging	The process and procedures are incorporated into the prospective WEIM Entities business processes before the start of market simulation.	Black Hills	Complete	CAISO RTMO was able to successfully execute communications, both by phone and by Everbridge	Tariff section 29.2(b)(7)(H)(i)

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	prospective WEIM Entity						message, with BHE's Real-Time WEIM Market Desk	
31	Communications between the CAISO and the prospective WEIM Entity	Communication tools	Staff are trained on communication procedures and tools	The prospective WEIM Entity operations staff who will have responsibility for WEIM operations, transactions and settlements are trained on the relevant operating procedures and tools used for WEIM related communications before the start of parallel operations	Black Hills	Complete	CAISO RTMO was able to successfully execute communications, both by phone and by Everbridge message, with BHE's Real-Time WEIM Market Desk	Tariff section 29.2(b)(7)(H)(ii)
32	Communications between the CAISO and the prospective WEIM Entity	3 rd party transmission service provider	The third party transmission service provider information that supports WEIM Transfers and Real-Time Dispatch included in the Full Network Model is available during parallel operations	The CAISO provides third party transmission service provider and path operator information to the prospective WEIM Entity through parallel operations	Black Hills	Not Started		Tariff section 29.2(b)(7)(H)(iii)
33	WEIM Available Balancing Capacity	Identification of WEIM Available Balancing Capacity	Participating resources and non-participating resources for WEIM Available Balancing Capacity.	The prospective WEIM Entity has identified WEIM participating resources and non-participating resources that it intends to designate in the WEIM Resource Plan as WEIM Available Balancing Capacity	Black Hills	Not Started		Tariff section 29.2(b)(7)(K)(iii)