

Readiness Criterion Identifier	Readiness Category	Criteria	Measurable Elements	Threshold	Owner	Status	Evidence	Tariff Mapping
1	Prospective EIM Entity Full Network Model Integration	Generation, Interchange and Load comparison	Load, EIM Internal Intertie and EIM External Interties, and Generating Unit definition in the Full Network Model is consistent with the Load, EIM Internal Intertie and EIM External Interties, and Generating Unit definition in the exported prospective EIM 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	Complete	ISO EMS team generated data and provided screen shots indicating that the averages for EIM BAA load generation and interchange values are within tolerances during measured dates.	Tariff section 29.2(b)(7)(A)(i)
2	Prospective EIM Entity Full Network Model Integration	Comparison of SCADA measurement	SCADA measurements used in prospective EIM 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	Complete	ISO EMS team provided screen shots from EMS that show the average deviation between telemetered values (SCADA).	Tariff section 29.2(b)(7)(A)(ii)
3	Prospective EIM Entity Full Network Model Integration	State Estimator solution	CAISO state estimator solution is equivalent or superior to the prospective EIM 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	Complete	ISO EMS team provided a report showing that the State Estimator is solving for the EIM Entity including unit level SCADA vs SE estimates from EMS and an analysis comparing total deviation/total actual MW.	Tariff section 29.2(b)(7)(A)(ii i)
4	Prospective EIM Entity Full Network Model Integration	Non-Conforming Load, Behind-the-Meter Generation, Pseudo Ties, and Dynamic Schedules	Physical representation of the prospective EIM 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 EIM Transfers and Real-Time Dispatch in the Energy Imbalance Market, as applicable	Prospective EIM Entity major non-conforming loads > 5% of prospective EIM Entity total actual load in MW are modeled separately from conforming load in market model	CAISO	Complete	Avangrid provided evidence and CAISO confirmed via email	Tariff section 29.2(b)(7)(A)(iv)
5	Agreements	Execution of Necessary Agreements	The prospective EIM Entity has executed all necessary agreements.	The prospective EIM Entity will execute all agreements, as outlined in Section 5 of the EIM BPM within the required timelines outlined in Section 5.	JOINT	Complete	Email from CAISO affirming 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 EIM Entity operators who will have responsibility for EIM operations, transactions and settlements, will complete CAISO training modules.	Prospective EIM 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.	Avangrid	Complete	Avangrid affirmed all training for Operators is complete. CAISO training lead provided confirmation email.	Tariff section 29.2(b)(7)(B)
7	Forecasting Capability	Load forecast capability	Definition of EIM 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 EIM demand based on historical actual load data for the defined EIM 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	Complete	ISO Short term Forecasting team provided screenshots of WEIM BAA from Forecast Monitor showing accuracy measurements for T-60, FMM and RTD.	Tariff sections 29.2(b)(7)(C)(i)-(iii)
8	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. EIM Entity provides to CAISO real-time MW production PI tags.	CAISO	Complete	ISO short term forecasting sent an email confirming that Avangrid’s forecast provider demonstrated delivery of VER forecasts in Parallel Operations.	Tariff section 29.2(b)(7)(C)(iv)
9	Forecasting Capability	Flexible capacity requirements	CAISO has established flexible capacity requirements for the prospective EIM Entity Balancing Authority Area and the combined EIM Area including the prospective EIM Entity	The CAISO has received and stored all historical data from the prospective EIM Entity necessary and sufficient for the CAISO to perform the flexible ramp requirement.	CAISO	Complete	ISO short term forecasting team provided evidence that the ISO is getting stable estimates of the data that feeds the calculation for the Flexible Ramp Product Uncertainty.	Tariff section 29.2(b)(7)(K)(iv)

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10	Balanced Schedules	Base schedule balancing capability	The prospective EIM Entity Scheduling Coordinator demonstrates its ability to balance EIM demand and EIM supply for the prospective EIM 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 EIM Entity to indicate a reasonable threshold as it applies to a given EIM Entity and indicate the potential implications of a swing from 5% over to 5% under forecast in one hour to the next.	Avangrid	Complete	- Avangrid provided screen shots of "Balancing Test Results" report from CMRI to support the criteria for Pre-Parallel Ops (Market Simulation). -ISO Market Quality team provided daily reports to support the criteria during Parallel Ops. -ISO provided an email summarizing the results and verifying that the criteria was met by entity.	Tariff section 29.2(b)(7)(D)(i)
11	Balanced Schedules	Flexible ramping sufficiency test capability	The prospective EIM 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.	Avangrid	Complete	- Avangrid provided CMRI "Flexible Ramp Requirement Sufficiency Test Results" report to support the criteria for Pre-Parallel Ops (Market Simulation). -ISO Market Quality team provided daily reports to support the criteria during Parallel Ops. -ISO provided an email summarizing the results and verifying that the criteria was met by entity.	Tariff section 29.2(b)(7)(D)(ii)
12	Balanced Schedules	Capacity test capability	The prospective EIM 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 EIM Entity to meet its capacity requirements.	CAISO	Complete	Avangrid provided CMRI "Bid Range Capacity Test" report to support the criteria to exit Market Simulation and exit Parallel Operations. ISO Market Quality team provided daily reports to support the criteria during Parallel Ops. ISO provided an email verifying that the criteria was met by entity.	Tariff section 29.2(b)(7)(D)(ii)
13	Operating Procedures	CAISO operating procedures (relevant to EIM operations)	The prospective EIM Entity signs CAISO non-disclosure agreement and receives appropriate CAISO "public" and "restricted" operating procedures	Operating procedures NDA signed by the prospective EIM Entity. The prospective EIM Entity receives CAISO operating procedures four months prior to the parallel operations date.	JOINT	Complete	CAISO lead - This RC is out of date - NDA no longer necessary b/c the information is posted online.	Tariff section 29.2(b)(7)(K)(i)
14	Operating Procedures	Prospective EIM Entity operating procedures	The prospective EIM Entity operating procedures are defined, updated, and tested for the EIM Entity Scheduling Coordinator	The prospective EIM Entity operating procedures are updated tested and implemented prior to parallel operations date.	Avangrid	Complete	Avangrid provided screen shots and an email confirming the documentation is complete.	Tariff section 29.2(b)(7)(K)(ii)

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15	System Readiness & Integration	Functional Testing	The prospective EIM 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.	Avangrid	Complete	Avangrid provided completed Testing Timeline spreadsheet and CAISO Integration Lead reviewed/confirmed.	Tariff section 29.2(b)(7)(E)(i)
16	System Readiness & Integration	System Integration	The prospective EIM 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.	Avangrid	Complete	Avangrid provided completed Testing Timeline spreadsheet and CAISO Integration Lead reviewed/confirmed.	Tariff section 29.2(b)(7)(E)(ii)
17	System Readiness & Integration	The prospective EIM Entity system access complete	All prospective EIM Entity employees who require system access to perform EIM-related job functions identified and have necessary certificates.	All prospective EIM Employees performing job functions for EIM market are identified. All CAISO issued certificates are requested within the appropriate timeframes. All identified employees provided the necessary EIM system access certificates.	Avangrid	Complete	Avangrid provided an email stating that all access is in place for Parallel Operations and a plan is in place to ensure all access is in place for production. ISO Client Rep provided an email confirming that access is in place and there is a plan for ensuring access for Production	Tariff section 29.2(b)(7)(E)(ii i)
18	System Readiness & Integration	ISO - prospective EIM Entity interfaces	Data interfaces between prospective EIM Entity's systems and CAISO systems are tested	ISO and prospective EIM Entity identify significant data interface issues. EIM Entity and CAISO executives to approve exceptions.	JOINT	Complete	Avangrid provided completed Testing Timeline spreadsheet and CAISO Integration Lead reviewed/confirmed.	Tariff section 29.2(b)(7)(E)(i)
19	Market Simulation	Day in the life simulation	The prospective EIM Entity operators are able to meet the market timelines	The prospective EIM Entity grid operations staff complete end-to-end daily market workflow with no critical defects.	JOINT	Complete	Avangrid provided completed Testing Timeline spreadsheet and CAISO Integration Lead reviewed/confirmed.	Tariff section 29.2(b)(7)(I)(ii)
20	Market Simulation	Structured scenarios simulation	The prospective EIM 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	Complete	ISO provided a completed Structured Scenario Reports (Detailed Input-Output for Structured Scenarios by week) and a Structured Scenario Status matrix. Avangrid sent a confirmation email identifying any approved incomplete cases/validations. ISO sent confirmation email	Tariff section 29.2(b)(7)(I)(iii)
21	Market Simulation	Unstructured scenarios simulation	The prospective EIM Entity operators execute and pass all	All significant issues resolved or have an interim solution that is functionally equivalent.	JOINT	Complete	Avangrid stated in an email that it is not going to conduct any	Tariff section 29.2(b)(7)(I)(iv)

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			unstructured scenarios provided by prospective EIM Entity				unstructured scenarios, CAISO Integration Lead confirmed.	
22	Market Simulation	Market results reports	Market results are appropriate based on inputs	The prospective EIM Entity and CAISO executive project sponsors approve the market results reports during market simulation	Avangrid	Complete	ISO Market Quality Team provided an email summarizing the Market Results confirming they are appropriate to meet the criteria	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	Complete	CAISO Market Quality team provided a confirmation email that validate market prices and MWs schedules/dispatches observed in market simulation exercises	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	Complete	ISO Market Quality team provided an analysis report on the Market Solution, prices, and quality of data.	Tariff section 29.2(b)(7)(I)(vi)
24	Market Simulation	The prospective EIM Entity Identification	Validation of SCID's and Resource ID's	The CAISO has established and the prospective EIM Entity has tested all necessary SCIDs and Resource IDs established for the prospective EIM Entity's Balancing Authority Area	JOINT	Complete	Avangrid provided final updated schedule 1 form and an email confirming this criteria has been met CAISO provided a list of all SCIDs and Resource IDs and the completed Roles Matrix, and an email confirming this criteria has been met	Tariff section 29.2(b)(7)(I)(i)
25	Settlements	ISO Settlement Statements and Invoices published to the prospective EIM Entity and EIM 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	Complete	Avangrid settlement lead confirmed receipt of initial and recalculation statements from agreed trade dates. ISO settlement leads verified the accuracy of its settlement statements and invoices made available during parallel operations.	Tariff section 29.2(b)(7)(F)(i)
26	Settlements	The prospective EIM Entity settlement statements and invoices reflect accurate allocations to the prospective	Verification that settlement statements and invoices accurately reflects system and market data	The prospective EIM Entity settlement statements and invoices that allocate charges and credits to its customers accurately reflect system and market data during parallel operations.	JOINT	Complete	Avangrid settlement lead confirmed that the settlement statements and Invoices received for the agreed trade dates reflect accurate allocations.	Tariff section 29.2(b)(7)(F)(ii)

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		EIM Entity customers prior to financially binding operations.					ISO settlement lead verifies the accuracy of the statements and invoices made available during parallel operations. "	
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	Complete	ISO Market Quality team provided an email verifying that they are able to see the data they require to complete their analysis. DMM sent an email confirming that they are able to access the data to complete their analysis.	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 EIM Entity specific parallel operation plan	Parallel operations runs consistently within normal production CAISO Market disruption tolerances.	CAISO	Complete	ISO provided an email with evidence indicating that Parallel Operations ran consistently within normal production CAISO Market disruption tolerances. ISO verified Parallel Operations ran consistently within normal ISO disruption tolerances. RTD/RTPD cumulative uptime average, RTD, FMM and STUC uptime percentage values.	Tariff section 29.2(b)(7)(J)
29	Outage Management System	Transmission and generation outage submittal and retrieval	The prospective EIM Entity will verify its ability to submit and retrieve outage information with the CAISO	The prospective EIM 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	Complete	CAISO provided evidence that outages were created by Avangrid and processed by CAISO OMS application. Avangrid provided evidence that internal applications were automatically processing outages and these outages match those provided by the CAISO	Tariff section 29.2(b)(7)(G)
30	Communications between the CAISO and the prospective EIM Entity	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 EIM Entities business processes before the start of market simulation.	Avangrid	Complete	Avangrid provided email evidence stating that processes have been implemented that include use of the Everbridge notification system used by CAISO and CAISO performed a test to confirm.	Tariff section 29.2(b)(7)(H)(i)

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31	Communications between the CAISO and the prospective EIM Entity	Communication tools	Staff are trained on communication procedures and tools	The prospective EIM Entity operations staff who will have responsibility for EIM operations, transactions and settlements are trained on the relevant operating procedures and tools used for EIM related communications before the start of parallel operations	Avangrid	Complete	Avangrid provided evidence that all appropriate staff have been trained on the communication procedures and tools. CAISO Training lead sent a confirmation email.	Tariff section 29.2(b)(7)(H)(ii)
32	Communications between the CAISO and the prospective EIM Entity	3 rd party transmission service provider	The third party transmission service provider information that supports EIM 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 EIM Entity through parallel operations	Avangrid	Complete	Avangrid affirmed that they do not use any 3 rd party transmission service providers as defined. CAISO Integration lead confirmed NA.	Tariff section 29.2(b)(7)(H)(ii)
33	EIM Available Balancing Capacity	Identification of EIM Available Balancing Capacity	Participating resources and non-participating resources for EIM Available Balancing Capacity.	The prospective EIM Entity has identified EIM participating resources and non-participating resources that it intends to designate in the EIM Resource Plan as EIM Available Balancing Capacity	Avangrid	Complete	Avangrid confirmed that its systems are capable of designated ABC capacity on registered EIM resources whether participating or non-participating and that ISO system allowed this submission of ABC Capacity.	Tariff section 29.2(b)(7)(K)(ii)