

Market Participant Comments and AESO Replies Matrix

Proposed Wind, Solar, AGF and DER Definition Amendments



Date of Request for Comment: April 7, 2017
 Period of Comment: April 7, 2017 through May 5, 2017

Definitions – Amended				
Existing	Original Proposed Amendments	Original Clean Proposed	Market Participant Comments and/or Alternate Proposal	AESO Reply
<p>“aggregated generating facility” means an aggregation of generating units, including any reactive power resources, which:</p> <p>(i) the ISO designates as an aggregated generating facility; and</p> <p>(ii) are situated in the same proximate location at one or more point of connections.</p>	<p>“aggregated generating facility” means, unless otherwise designated by the ISO, an aggregation of two (2) or more generating units, including any associated reactive power resources, which where:</p> <p>(i) each generating unit is rated 9 MW or smaller; the ISO designates as an aggregated generating facility; and</p> <p>(ii) all generating units are situated in the same proximate location and have a common collector bus or multiple collector busses that can be operated as a common collector bus; and at one or more point of connections.</p> <p>(iii) the aggregated generating facility is connected to the interconnected electric system or the electrical system in the service area of the City of Medicine Hat.</p>	<p>“aggregated generating facility” means, unless otherwise designated by the AESO, an aggregation of two (2) or more generating units, including any associated reactive power resources, where:</p> <p>(i) each generating unit is rated 9 MW or smaller;</p> <p>(ii) all generating units are situated in the same proximate location and have a common collector bus or multiple collector busses that can be operated as a common collector bus; and</p> <p>(iii) the aggregated generating facility is connected to the interconnected electric system or the electrical system in the service area of the City of Medicine Hat.</p>	<p>Capital Power Corporation (“Capital Power”)</p> <p>1. Capital Power would like to better understand the proposed 9 MW or smaller rating for each generating unit that may be included as part of an aggregated generating facility. Please provide the AESO’s technical basis and rationale for the 9 MW threshold.</p>	<p>1. The AESO is maintaining the current approach to the 9 MW criteria for an aggregated generating facility, outlined in Information Document #2012-001R, <i>Aggregated Generating Facility Designation Criterion</i>, which aligns with the recommendation from the WECC^{1,2}.</p>
<p>“allowable dispatch variance” means:</p> <p>(i) for each generating source asset, other than a wind</p>	<p>“allowable dispatch variance” means:</p> <p>(i) for each generating source asset, other than a wind or solar</p>	<p>“allowable dispatch variance” means:</p> <p>(i) for each generating source asset, other than a wind or solar</p>		

¹ WECC Generating Unit Model Validation Policy, <https://www.wecc.biz/Corporate/WECC%20Generating%20Unit%20Model%20Validation%20Policy%202012.pdf>.

² WECC Generating Facility Data, Testing and Model Validation Requirements, <https://www.wecc.biz/Reliability/WECC%20Gen%20Fac%20Testing%20and%20Model%20Validation%20Rqmts%20v%207-13-2012.pdf>.

<p>aggregated generating facility, as measured from the dispatch quantity:</p> <p>(a) plus or minus five (5) MW for a generating source asset with a maximum capability of two hundred (200) MW or less; or</p> <p>(b) (b) plus or minus ten (10) MW for a generating source asset with a maximum capability of greater than two hundred (200) MW;</p> <p>(ii) for each wind aggregated generating facility with a maximum capability of two hundred (200) MW or less:</p> <p>(a) five (5) MW greater than the dispatch quantity and five (5) MW less than the potential real power capability, if the potential real power capability is less than the dispatch quantity; or</p> <p>(b) plus or minus five (5) MW from the dispatch quantity, if the potential real power capability is greater than or equal to the dispatch quantity; and</p> <p>(iii) for each wind aggregated generating facility with a maximum capability of greater than two hundred (200) MW:</p> <p>(a) ten (10) MW greater than the dispatch quantity and ten (10) MW less than the potential real power</p>	<p>aggregated generating facility, as measured from the dispatch quantity:</p> <p>(a) plus or minus five (5) MW for a generating source asset with a maximum capability of two hundred (200) MW or less; or</p> <p>(b) plus plus or minus ten (10) MW for a generating source asset with a maximum capability of greater than two hundred (200) MW;</p> <p>(ii) for each wind or solar aggregated generating facility with a maximum capability of two hundred (200) MW or less:</p> <p>(a) five (5) MW greater than the dispatch quantity and five (5) MW less than the potential real power capability, if the potential real power capability is less than the dispatch quantity; or</p> <p>(b) plus or minus five (5) MW from the dispatch quantity, if the potential real power capability is greater than or equal to the dispatch quantity; and</p> <p>(iii) for each wind or solar aggregated generating facility with a maximum capability of greater than two hundred (200) MW:</p> <p>(a) ten (10) MW greater than the dispatch quantity and ten (10) MW less than the potential real power capability, if the potential real power capability is less than the dispatch quantity; or</p> <p>(b) plus or minus ten (10) MW from the dispatch quantity, if the potential real power</p>	<p>aggregated generating facility, as measured from the dispatch quantity:</p> <p>(a) plus or minus five (5) MW for a generating source asset with a maximum capability of two hundred (200) MW or less; or</p> <p>(b) plus or minus ten (10) MW for a generating source asset with a maximum capability of greater than two hundred (200) MW;</p> <p>(ii) for each wind or solar aggregated generating facility with a maximum capability of two hundred (200) MW or less:</p> <p>(a) five (5) MW greater than the dispatch quantity and five (5) MW less than the potential real power capability, if the potential real power capability is less than the dispatch quantity; or</p> <p>(b) plus or minus five (5) MW from the dispatch quantity, if the potential real power capability is greater than or equal to the dispatch quantity; and</p> <p>(iii) for each wind or solar aggregated generating facility with a maximum capability of greater than two hundred (200) MW:</p> <p>(a) ten (10) MW greater than the dispatch quantity and ten (10) MW less than the potential real power capability, if the potential real power capability is less than the dispatch quantity; or</p> <p>(b) plus or minus ten (10) MW from the dispatch quantity, if the potential real power</p>		
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<p>capability, if the potential real power capability is less than the dispatch quantity; or</p> <p>(b) plus or minus ten (10) MW from the dispatch quantity, if the potential real power capability is greater than or equal to the dispatch quantity.</p>	<p>capability is greater than or equal to the dispatch quantity.</p>	<p>capability is greater than or equal to the dispatch quantity.</p>		
<p>“collector bus” means the low voltage side of any step-up transformers connected to the transmission system where the real power and reactive power produced by any generating units or reactive power resources, or both of them, are collected.</p>	<p>“collector bus” means the low voltage side of any step-up transformers connected to the interconnected electric transmission system or the electrical system in the City of Medicine Hat where the real power and reactive power produced by any generating units or reactive power resources, or both of them within an aggregated generating facility, are collected.</p>	<p>“collector bus” means the low voltage side of any step-up transformers connected to the interconnected electric system or the electrical system in the City of Medicine Hat where the real power and reactive power produced by any generating units or reactive power resources, or both of them within an aggregated generating facility, are collected.</p>		
<p>“commissioning” means:</p> <p>(i) in the case of a new generating unit or a new aggregated generating facility, the process of carrying out, after synchronization but before commercial operation, activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily enter commercial operation and, where applicable, meets the ISO's requirements and other relevant standards;</p> <p>(ii) in the case of an existing generating unit or an existing aggregated</p>	<p>“commissioning” means:</p> <p>(i) in the case of a new generating unit or a new aggregated generating facility, the process of carrying out, after connection to the interconnected electric system synchronization but before commercial operation, activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily enter commercial operation and, where applicable, meets the ISO's requirements and other relevant standards;</p> <p>(ii) in the case of an existing generating unit or an existing aggregated generating facility that is being modified, the process</p>	<p>“commissioning” means:</p> <p>(i) in the case of a new generating unit or a new aggregated generating facility, the process of carrying out, after connection to the interconnected electric system but before commercial operation, activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily enter commercial operation and, where applicable, meets the ISO's requirements and other relevant standards;</p> <p>(ii) in the case of an existing generating unit or an existing aggregated generating facility that is being modified, the process</p>		

<p>generating facility that is being modified, the process of carrying out activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily continue in commercial operation and, where applicable, continue to meet the ISO's requirements and other relevant standards;</p> <p>(iii) in the case of a new transmission facility or a new load facility, the process of carrying out, after energization but before normal operation, activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily enter normal operation and, where applicable, meets the ISO's requirements and other relevant standards; and</p> <p>(iv) in the case of an existing transmission facility or an existing load facility that is being upgraded in the form of a requested increase in capacity or revised functionality, the process of carrying out activities designed to test equipment, a facility or a process to confirm that the facility can satisfactorily continue in normal operation and, where applicable, continue to meet the ISO's requirements and other relevant standards.</p>	<p>of carrying out activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily continue in commercial operation and, where applicable, continue to meet the ISO's requirements and other relevant standards;</p> <p>(iii) in the case of a new transmission facility or a new load facility, the process of carrying out, after energization but before normal operation, activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily enter normal operation and, where applicable, meets the ISO's requirements and other relevant standards; and</p> <p>(iv) in the case of an existing transmission facility or an existing load facility that is being upgraded in the form of a requested increase in capacity or revised functionality, the process of carrying out activities designed to test equipment, a facility or a process to confirm that the facility can satisfactorily continue in normal operation and, where applicable, continue to meet the ISO's requirements and other relevant standards.</p>	<p>of carrying out activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily continue in commercial operation and, where applicable, continue to meet the ISO's requirements and other relevant standards;</p> <p>(iii) in the case of a new transmission facility or a new load facility, the process of carrying out, after energization but before normal operation, activities designed to test equipment, the facility or a process to confirm that the facility can satisfactorily enter normal operation and, where applicable, meets the ISO's requirements and other relevant standards; and</p> <p>(iv) in the case of an existing transmission facility or an existing load facility that is being upgraded in the form of a requested increase in capacity or revised functionality, the process of carrying out activities designed to test equipment, a facility or a process to confirm that the facility can satisfactorily continue in normal operation and, where applicable, continue to meet the ISO's requirements and other relevant standards.</p>		
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<p>“governor or governor system” means automatic control equipment with frequency or speed droop characteristics to control:</p> <ul style="list-style-type: none"> i. the speed or electric power output of a generating unit, or both; ii. the electric power input of a load; or iii. the electric power output or input of an energy storage facility, or both 	<p>“governor or governor system” means automatic control equipment with frequency or speed droop characteristics to control:</p> <ul style="list-style-type: none"> (i)- the speed or electric power output of a generating unit generating unit, or both; (ii)- the electric power input of a load; or (iii)- the electric power output or input of an energy storage facility, or both; or (iv) the speed or electric power output of an aggregated generating facility. 	<p>“governor or governor system” means automatic control equipment with frequency or speed droop characteristics to control:</p> <ul style="list-style-type: none"> (i) the speed or electric power output of a generating unit, or both; (ii) the electric power input of a load; (iii) the electric power output or input of an energy storage facility, or both; or (iv) the speed or electric power output of an aggregated generating facility. 		
<p>“maximum authorized real power” means:</p> <ul style="list-style-type: none"> (i) for an aggregated generating facility with one (1) or more collector busses, the sum of the maximum gross real power that the ISO has authorized the generating units to deliver to those collector busses; (ii) for an aggregated generating facility without a collector bus, the maximum gross real power that the ISO has authorized each generating unit to deliver to its generator terminal; or (iii) for a generating unit that is not part of an aggregated generating facility, the maximum gross real power that the ISO authorizes the generating unit to deliver to its generator terminal. 	<p>“maximum authorized real power” means:</p> <ul style="list-style-type: none"> (i) for an aggregated generating facility with one (1) or more collector busses, the sum of the maximum gross real power that may be delivered to the ISO has authorized the generating units to deliver to those collector busses of the aggregated generating facility; or (ii) for an aggregated generating facility without a collector bus, the maximum gross real power that the ISO has authorized each generating unit to deliver to its generator terminal; or (iii) for a generating unit that is not part of an aggregated generating facility, the maximum gross real power that may be delivered to the stator winding terminal of that the ISO authorizes the generating unit to deliver to its generator terminal. 	<p>“maximum authorized real power” means:</p> <ul style="list-style-type: none"> (i) for an aggregated generating facility, the sum of the maximum gross real power that may be delivered to the collector busses of the aggregated generating facility; or (ii) for a generating unit that is not part of an aggregated generating facility, the maximum gross real power that may be delivered to the stator winding terminal of the generating unit. 		