CIP Concordance Table: Comparison Between AESO's *Consolidated Authoritative Document Glossary* and NERC's *Glossary of Terms*

This table includes 2 new proposed definitions for **transient cyber asset** and **removable media**.

NERC Term	NERC Definition	AESO Term	AESO Definition	CIP standard location
Balancing Authority	The responsible entity that integrates resource plans ahead of time, maintains Demand and resource balance within a Balancing Authority Area, and supports Interconnection frequency in real time.	[Intentionally Left Blank] *(note the AESO's CADG definition of **balancing authority** is provided, though it is not used in the ARS CIP standards)*	**balancing authority** means a responsible entity that integrates resource plans ahead of time, maintains load-**interchange** generation balance within a **balancing authority area** and supports **Interconnection** frequency in real time.	**CIP-003** Section 4.1.1. **CIP-005** Section 4.1.1. **CIP-010** Section 4.1.1. **CIP-013** Section 4.1.1.
BES Cyber Systems	One or more BES Cyber Assets logically grouped by a responsible entity to perform one or more reliability tasks for a functional entity.	**BES cyber systems**	means one or more **BES cyber assets** logically grouped to perform one or more reliability tasks for a functional entity.	**CIP-003** Section 3, R1, R2, Att 1, Att 2. **CIP-005** Section 3, section 4.2.3, R1, R2, R3. **CIP-010** Section 3, section 4.2.3, R1, R2, R3, R4, Att 1. **CIP-013** Section 3, section 4.2.3, R1
Blackstart Resource	A generating unit(s) and its associated set of equipment which has the ability to be started without support from the System or is designed to remain energized without connection to the remainder of the System, with the ability to energize a bus, meeting the Transmission Operator's restoration plan needs for Real and Reactive Power capability, frequency and voltage control, and that has been included in the Transmission Operator's restoration plan.	**blackstart resource**	means a **generating unit(s)** or **aggregated generating facility** and its associated set of equipment which has the ability to be started without support from the system or is designed to remain energized without connection to the remainder of the system, with the ability to energize a dead bus, meeting the **ISO**'s restoration plan needs for **real power** and **reactive power** capability, frequency and voltage control, and that has been included in the **ISO**'s restoration plan.	**CIP-003** Section 4.1.2, 4.2.1, 4.2.2. **CIP-005** Section 4.1.2, 4.2.1. **CIP-010** Section 4.1.2, 4.2.1. **CIP-013** Section 4.2.1.
Bulk Electric System (BES)	Unless modified by the lists shown below, all Transmission Elements operated at 100 kV or higher and Real Power and Reactive Power resources connected at 100 kV or higher. This does not include facilities used in the local distribution of electric energy. **Inclusions:** • I1 - Transformers with the primary terminal and at least one secondary terminal operated at 100	**bulk electric system**	means all **system elements** that are included in the following: (i) all **system elements** that have all terminals energized at 100 kV or higher that are not part of a **radial circuit**; (ii) a **radial circuit** comprised of **system elements** that have all terminals energized at 100 kV or higher where the **radial circuit** connects to: (a) any facility included in items (iv) through (vii) below; or	**CIP-003** Section 3, Section 4.1.2, 4.2.1, 4.2.2. **CIP-005** Section 3, Section 4.1.2, 4.2.1, 4.2.2. **CIP-010** Section 3, Section 4.1.2, 4.2.1, 4.2.2. **CIP-013** Section 3, Section 4.1.2, 4.2.1, 4.2.2, R1.

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	kV or higher unless excluded by application of Exclusion E1 or E3. • I2 – Generating resource(s) including the generator terminals through the high-side of the step-up transformer(s) connected at a voltage of 100 kV or above with: a) Gross individual nameplate rating greater than 20 MVA. Or, b) Gross plant/facility aggregate nameplate rating greater than 75 MVA. • I3 - Blackstart Resources identified in the Transmission Operator's restoration plan. • I4 - Dispersed power producing resources that aggregate to a total capacity greater than 75 MVA (gross nameplate rating), and that are connected through a system designed primarily for delivering such capacity to a common point of connection at a voltage of 100 kV or above. Thus, the facilities designated as BES are: a) The individual resources, and b) The system designed primarily for delivering capacity from the point where those resources aggregate to greater than 75 MVA to a common point of connection at a voltage of 100 kV or above. • I5 –Static or dynamic devices (excluding generators) dedicated to supplying or absorbing Reactive Power that are connected at 100 kV or higher, or through a dedicated transformer with a high-side voltage of 100 kV or higher, or through a transformer that is designated in Inclusion I1 unless excluded by application of Exclusion E4. **Exclusions:**		(b) 2 or more generating resources, being **generating units** and **aggregated generating facilities**, that have a combined **maximum authorized real power** higher than 67.5 MW; (iii) a transformer that has its primary terminal and at least one secondary terminal energized at 100 kV or higher; (iv) a **generating unit** that has a **maximum authorized real power** higher than 18 MW where **system access service** is provided through a switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher, including all **system elements** from the terminal of the **generating unit** to the **transmission facilities** energized at 100 kV or higher; (v) an **aggregated generating facility** that has a **maximum authorized real power** higher than 67.5 MW where **system access service** is provided through a switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher, including all **system elements** from the collector bus to the **transmission facilities** energized at 100 kV or higher, and excluding the **generating units** and the collector system feeders; (vi) all **generating units** and **aggregated generating facilities** where **system access service** is provided through a common switchyard that is directly connected to **transmission facilities** energized at 100 kV or higher and the **generating units** and **aggregated generating facilities** have a combined **maximum authorized real power** higher than 67.5 MW, including all **system elements** from the terminal of each **generating unit** and from the collector bus of each **aggregated generating**	

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	• **E1** - Radial systems: A group of contiguous transmission Elements that emanates from a single point of connection of 100 kV or higher and: a) Only serves Load. Or, b) Only includes generation resources, not identified in Inclusions I2, I3, or I4, with an aggregate capacity less than or equal to 75 MVA (gross nameplate rating). Or, c) Where the radial system serves Load and includes generation resources, not identified in Inclusions I2, I3 or I4, with an aggregate capacity of non-retail generation less than or equal to 75 MVA (gross nameplate rating). Note 1 – A normally open switching device between radial systems, as depicted on prints or one-line diagrams for example, does not affect this exclusion. Note 2 – The presence of a contiguous loop, operated at a voltage level of 50 kV or less, between configurations being considered as radial systems, does not affect this exclusion. • **E2** - A generating unit or multiple generating units on the customer's side of the retail meter that serve all or part of the retail Load with electric energy if: (i) the net capacity provided to the BES does not exceed 75 MVA, and (ii) standby, back-up, and maintenance power services are provided to the generating unit or multiple generating units or to the retail Load by a Balancing Authority, or provided pursuant to a binding obligation with a Generator Owner or Generator Operator, or under terms approved by the applicable regulatory authority.		**facility** to **transmission facilities** energized at 100 kV or higher, and excluding the **generating units** and collector system feeders of each **aggregated generating facility**; (vii) a **blackstart resource**, including all **system elements** from the terminal of the **blackstart resource** to **transmission facilities** that are energized at 100 kV or higher; and (viii) a static or dynamic **reactive power** resource that is dedicated to supplying or absorbing **reactive power** to or from the **transmission system** and is connected: (a) to **transmission facilities** energized at 100 kV or higher; (b) through a dedicated transformer that is directly connected to **transmission facilities** energized at 100 kV or higher; or (c) through a non-dedicated transformer that has its primary terminal and at least one secondary terminal energized at 100 kV or higher; including all **system elements** from the terminal of the **reactive power** resource to the **transmission facilities** energized at 100 kV or higher.	

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	• **E3** - Local networks (LN): A group of contiguous transmission Elements operated at less than 300 kV that distribute power to Load rather than transfer bulk power across the interconnected system. LN's emanate from multiple points of connection at 100 kV or higher to improve the level of service to retail customers and not to accommodate bulk power transfer across the interconnected system. The LN is characterized by all of the following: a) Limits on connected generation: The LN and its underlying Elements do not include generation resources identified in Inclusions I2, I3, or I4 and do not have an aggregate capacity of non-retail generation greater than 75 MVA (gross nameplate rating); b) Real Power flows only into the LN and the LN does not transfer energy originating outside the LN for delivery through the LN; and c) Not part of a Flowgate or transfer path: The LN does not contain any part of a permanent Flowgate in the Eastern Interconnection, a major transfer path within the Western Interconnection, or a comparable monitored Facility in the ERCOT or Quebec Interconnections, and is not a monitored Facility included in an Interconnection Reliability Operating Limit (IROL). • E4 – Reactive Power devices installed for the sole benefit of a retail customer(s). Note - Elements may be included or excluded on a case-by-case basis through the Rules of Procedure exception process.			
calendar months	No definition	**months**	means a calendar month.	**CIP-003** R1, M1, R2, M2, Att 1, Att 2. **CIP-010** R3. **CIP-013** R3, M3.

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calendar days	No definition	**days**	means the twenty-four (24) hour period in Alberta beginning at 00:00:00 and ending at 23:59:59 but which: (i) in the case of the day on which daylight savings begins, is twenty-three (23) hours; or (ii) in the case of the day on which daylight savings ends, is twenty-five (25) hours.	**CIP-003** R3, R4, Att 1 , Att 2. **CIP-010** R1, R2.
CIP Exceptional Circumstances	A situation that involves or threatens to involve one or more of the following, or similar, conditions that impact safety or BES reliability: a risk of injury or death; a natural disaster; civil unrest; an imminent or existing hardware, software, or equipment failure; a Cyber Security Incident requiring emergency assistance; a response by emergency services; the enactment of a mutual assistance agreement; or an impediment of large scale workforce availability.	**CIP exceptional circumstances**	means a situation that involves or threatens to involve one or more of the following, or similar, conditions that impact safety or **bulk electric system** reliability: a risk of injury or death; a natural disaster; civil unrest; an imminent or existing hardware, software, or equipment failure; a **cyber security incident** requiring emergency assistance; a response by emergency services; the enactment of a mutual assistance agreement; or an impediment of large scale workforce availability.	**CIP-003** R1, Att 1. **CIP-010** R3.3, R4.
CIP Senior Manager	A single senior management official with overall authority and responsibility for leading and managing implementation of and continuing adherence to the requirements within the NERC CIP Standards, CIP-002 through CIP-011.	**CIP senior manager**	means a single senior management official with overall authority and responsibility for leading and managing implementation of and continuing adherence to the requirements within the CIP **reliability standards**~~, CIP-002 through CIP-011~~.	**CIP-003** R1, M1, R2, M2, R3, M3, R4, M4. **CIP-013** R3, M3. (proposed update)
Control Centers	One or more facilities hosting operating personnel that monitor and control the Bulk Electric System (BES) in real-time to perform the reliability tasks, including their associated data centers, of: 1) a Reliability Coordinator, 2) a Balancing Authority, 3) a Transmission Operator for transmission Facilities at two or more locations, or 4) a Generator Operator for generation Facilities at two or more locations.	**control centres**	means one or more facilities hosting operating personnel that monitor and control the **bulk electric system** in real-time to perform the reliability tasks, including their associated data centres, of: 1) the **ISO**, 2) an **operator** of a **transmission facility** for **transmission facilities** at two (2) or more locations, or 3) an **operator** of a **generating unit** or an **operator** of an **aggregated generating facility** for either **generating units** or **aggregated generating facilities** at two (2) or more locations.	**CIP-005** R1.5.
Cranking Path	A portion of the electric system that can be isolated and then energized to deliver electric	**cranking path**	means a portion of the electric system that can be isolated and then energized to deliver electric power from a generation source to enable the startup of	**CIP-003** Section 4.1.2, 4.2.1. **CIP-005** Section 4.1.2, 4.2.1. **CIP-010** Section 4.1.2, 4.2.1.

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	power from a generation source to enable the startup of one or more other generating units.		one or more other **generating units** or **aggregated generating facilities**.	**CIP-013** Section 4.2.1.
Cyber Assets	Programmable electronic devices, including the hardware, software, and data in those devices.	**cyber assets**	means programmable electronic devices, including the hardware, software, and data in those devices.	**CIP-003** Section 4.2.3, R2. **CIP-005** Section 4.2.3, R1, R2. **CIP-010** Section 4.2.3. **CIP-013** Section 4.2.3.
Cyber Security Incident	A malicious act or suspicious event that:- For a high or medium impact BES Cyber System, compromises or attempts to compromise (1) an Electronic Security Perimeter, (2) a Physical Security Perimeter, or (3) an Electronic Access Control or Monitoring System; or- Disrupts or attempts to disrupt the operation of a BES Cyber System.	**cyber security incident**	means a malicious act or suspicious event that: • compromises, or was an attempt to compromise, the **electronic security perimeter** or **physical security perimeter**, or • disrupts, or was an attempt to disrupt, the operation of a **BES cyber system**.	**CIP-003** R1, Att 1, Att 2.
Dial-up Connectivity	A data communication link that is established when the communication equipment dials a phone number and negotiates a connection with the equipment on the other end of the link.	**dial-up connectivity**	means a data communication link that is established when the communication equipment dials a phone number and negotiates a connection with the equipment on the other end of the link.	**CIP-003** Att 1, Att 2. **CIP-005** R1.4.
Distribution Provider	Provides and operates the "wires" between the transmission system and the end-use customer. For those end-use customers who are served at transmission voltages, the Transmission Owner also serves as the Distribution Provider. Thus, the Distribution Provider is not defined by a specific voltage, but rather as performing the distribution function at any voltage.	**legal owner** (or **operator**) of an **electric distribution system**	**electric distribution system** as defined in the **Act** means the plant, works, equipment, systems and services necessary to distribute electricity in a service area, but does not include a **generating unit** or a **transmission facility**. (*Note: see definitions for **legal owner** and **operator** separately in this document)*	**CIP-003** Section 4.1.2, 4.2.1, 4.2.2, 4.2.3. **CIP-005** Section 4.1.2, 4.2.1, 4.2.2, 4.2.3. **CIP-010** Section 4.1.2, 4.2.1, 4.2.2, 4.2.3. **CIP-013** Section 4.1.2, 4.2.1, 4.2.2, 4.2.3.
EACMS	Cyber Assets that perform electronic access control or electronic access monitoring of the Electronic Security Perimeter(s) or BES Cyber Systems. This includes Intermediate Systems.	**Electronic access control or monitoring systems**	means **cyber assets** that perform electronic access control or electronic access monitoring of the **electronic security perimeter**(s) or **BES cyber systems**. This includes **intermediate systems**.	**CIP-005** R3. **CIP-010** R1, R2, R3. **CIP-013** R1.
Electronic Access Point (EAP)	A Cyber Asset interface on an Electronic Security Perimeter that allows routable communication between Cyber Assets outside an Electronic	**electronic access point**	means a **cyber asset** interface on an **electronic security perimeter** that allows routable communication between **cyber assets** outside an	**CIP-005** R1.2, R1.3, R1.5.

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	Security Perimeter and Cyber Assets inside an Electronic Security Perimeter.		**electronic security perimeter** and **cyber assets** inside an **electronic security perimeter**.	
Electronic Security Perimeters (ESPs)	The logical border surrounding a network to which BES Cyber Systems are connected using a routable protocol.	**electronic security perimeters**	means the logical border surrounding a network to which **BES cyber systems** are connected using a routable protocol.	**CIP-003** Section 4.2.3, R1. **CIP-005** Section 3, 4.2.3, R1 **CIP-010** Section 4.2.3. **CIP-013** Section 4.2.3,
Elements	Any electrical device with terminals that may be connected to other electrical devices such as a generator, transformer, circuit breaker, bus section, or transmission line. An Element may be comprised of one or more components.	Currently "elements"	No definition	**CIP-003** Section 4.1.2, 4.2.1. **CIP-005** Section 4.1.2, 4.2.1. **CIP-010** Section 4.1.2, 4.2.1. **CIP-013** Section 4.2.1.
External Routable Connectivity	The ability to access a BES Cyber System from a Cyber Asset that is outside of its associated Electronic Security Perimeter via a bi-directional routable protocol connection.	**external routable connectivity**	means the ability to access a **BES cyber system** from a **cyber asset** that is outside of its associated **electronic security perimeter** via a bi-directional routable protocol connection.	**CIP-005** R1.2, R2, R3.
Facilities	A set of electrical equipment that operates as a single Bulk Electric System Element (e.g., a line, a generator, a shunt compensator, transformer, etc.)	Currently "facilities" [possibly **system elements** that are part of the **bulk electric system?** If important to only refer to BES....if not, keep as "facilities"]	**No Definition** **(option: system element** that is part of the **bulk electric system)** means an assembly of electrical equipment, including associated switches: (i) that is generally treated as a single electrical device; (ii) that has terminals that are connected to other electrical devices; and (iii) through which electric power is provided to or flows to, through or from the transmission system, such as a generator, transformer, circuit breaker, bus section, transmission line, collector system feeder, continuously variable reactive compensation device, switched capacitor, switched reactor, series compensator, energy storage device, inverter, or rectifier or similar electrical device that is comprised of one or more components and has terminals connected to other similar devices, but does not include any components electrical device that is part	**CIP-003** Section 4.1.2, 4.2, 4.2.1, 4.2.2, 4.2.3. **CIP-005** Section 4.1.2, 4.2, 4.2.1, 4.2.2, 4.2.3. **CIP-010** Section 4.1.2, 4.2, 4.2.1, 4.2.2, 4.2.3. **CIP-013** Section 4.1.2, 4.2, 4.2.1, 4.2.2, 4.2.3.

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			of an electric distribution system or any generator connected to a collector system feeder. *Note: See above for **bulk electric system** definition*	
generation unit(s)	No definition	**generating unit**(s) or **aggregated generating facility**	**generating unit**(s) as defined in the **Act** means the component of a power plant that produces, from any source, electric energy and **ancillary services**, and includes a share of the following associated facilities that are necessary for the safe, reliable and economic operation of the **generating uni**t, which may be used in common with other **generating units**: (i) fuel and fuel handling equipment; (ii) cooling water facilities; (iii) switch yards; (iv) other items. **aggregated generating facility** means an aggregation of **generating units**, including any **reactive power** resources, which: (i) the **ISO** designates as an aggregated generating facility; and (i) are situated in the same proximate location at one or more **point of connections**.	**CIP-003** Section 4.1.2.4, 4.2.1.4. **CIP-005** Section 4.1.2.4, 4.2.1.4. **CIP-010** Section 4.1.2.4, 4.2.1.4. **CIP-013** Section 4.2.1.4.
Generator Operator	The entity that operates generating Facility(ies) and performs the functions of supplying energy and Interconnected Operations Services.	the **operator** of a **generating unit** and the **operator** of an **aggregated generating facility**	(*Note: see individual definitions separately in this document)*	**CIP-003** Section 4.1.3. **CIP-005** Section 4.1.3. **CIP-010** Section 4.1.3. **CIP-013** Section 4.1.3.
Generator Owner	Entity that owns and maintains generating Facility(ies).	the **legal owner** of a **generating unit** and the **legal owner** of an **aggregated generating facility**	(*Note: see individual definitions separately in this document)*	**CIP-003** Section 4.1.4. **CIP-005** Section 4.1.4. **CIP-010** Section 4.1.4. **CIP-013** Section 4.1.4.

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Interactive Remote Access	User-initiated access by a person employing a remote access client or other remote access technology using a routable protocol. Remote access originates from a Cyber Asset that is not an Intermediate System and not located within any of the Responsible Entity's Electronic Security Perimeter(s) or at a defined Electronic Access Point (EAP). Remote access may be initiated from: 1) Cyber Assets used or owned by the Responsible Entity, 2) Cyber Assets used or owned by employees, and 3) Cyber Assets used or owned by vendors, contractors, or consultants. Interactive remote access does not include system-to-system process communications	**interactive remote access**	means user-initiated access by a person employing a remote access client or other remote access technology using a routable protocol. Remote access originates from a **cyber asset** that is not an **intermediate system** and not located within any of the Responsible Entity's **electronic security perimeter**(s) or at a defined **electronic access point**. Remote access may be initiated from: 1) **cyber assets** used or owned by the Responsible Entity, 2) **cyber assets** used or owned by employees, and 3) **cyber assets** used or owned by vendors, contractors, or consultants. Interactive **remote access** does not include system-to-system process communications. Note: the "Responsible Entity" referred to in this definition is identified in the applicability section of each Version 5 CIP Cyber Security **reliability standard**.	**CIP-003** R1, R2.
interconnection point	No definition	**Currently use point of supply** and/or **point of delivery in existing CIP ARS however, these terms are not defined for use in the ARS** **Consider changing to point of connection (which is defined for ARS)**	**point of supply (not defined in the ARS, DEFINED IN THE ISO RULES as:** means the point at which electricity is transferred to transmission facilities from facilities owned by a market participant receiving system access service under the ISO tariff, including a generating unit, aggregated generating facility or an electric distribution system) **point of delivery (not defined in the ARS, DEFINED IN THE ISO RULES as:** means the point at which electricity is transferred from transmission facilities to facilities owned by a market participant receiving system access service under the ISO tariff, including an electric distribution system.)	**CIP-003** Section 4.1.2.4, 4.2.1.4. **CIP-005** Section 4.1.2.4, 4.2.1.4. **CIP-010** Section 4.1.2.4, 4.2.1.4. **CIP-013** Section 4.2.1.4.

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			point of connection means a point at which electric energy is transferred between a **transmission facility** that is not an industrial system, and (i) the high voltage side of any **aggregated generating facilities** or **generating unit**; (ii) an **electric distribution system**; (iii) an industrial system that has been designated as such by the **Commission**; or (iv) a load facility with **system access service** under subsection 101(2) of the **Act**.	
Intermediate System	A Cyber Asset or collection of Cyber Assets performing access control to restrict Interactive Remote Access to only authorized users. The Intermediate System must not be located inside the Electronic Security Perimeter.	**intermediate system**	means a **cyber asset** or collection of **cyber assets** performing access control to restrict **interactive remote access** to only authorized users. The **intermediate system** must not be located inside the **electronic security perimeter**.	**CIP-005** R2.
		legal owner	means the **person** who owns electric industry property including any one (1) or more of: (i) a **generating unit**; (ii) an **aggregated generating facility**; (iii) a **transmission facility**; (iv) an **electric distribution system**; (v) an industrial system that has been designated as such by the **Commission**; and (vi) a load facility with **system access service** under subsection 101(2) of the **Act**.	
		operator	means a **person** given expressed authority by a **legal owner** to operate on the **legal owner**'s behalf any one (1) or more of its electric industry properties, including: (i) a **generating unit**; (ii) an **aggregated generating facility**; (iii) a **transmission facility**; (iv) an **electric distribution system**;	

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			(v) an industrial system that has been designated as such by the **Commission**; and (vi) a load facility with **system access service** under subsection 101(2) of the **Act**; and includes the **legal owner**, if no such other **person** has been so authorized.	
Physical Access Control Systems (PACS)	Cyber Assets that control, alert, or log access to the Physical Security Perimeter(s), exclusive of locally mounted hardware or devices at the Physical Security Perimeter such as motion sensors, electronic lock control mechanisms, and badge readers.	**physical access control systems**	means **cyber assets** that control, alert, or log access to the **physical security perimeter**(s), exclusive of locally mounted hardware or devices at the **physical security perimeter** such as motion sensors, electronic lock control mechanisms, and badge readers.	**CIP-005** R3. **CIP-010** R1, R3. **CIP-013** R1.
Protected Cyber Asset (PCA)	One or more Cyber Assets connected using a routable protocol within or on an Electronic Security Perimeter that is not part of the highest impact BES Cyber System within the same Electronic Security Perimeter. The impact rating of Protected Cyber Assets is equal to the highest rated BES Cyber System in the same ESP.	**protected cyber assets**	means one or more **cyber assets** connected using a routable protocol within or on an **electronic security perimeter** that is not part of the highest impact **BES cyber system** within the same **electronic security perimeter**. The impact rating of **protected cyber assets** is equal to the highest rated **BES cyber system** in the same **electronic security perimeter**. A **cyber asset** is not a **protected cyber asset** if, for 30 consecutive **days** or less, it is connected either to a **cyber asset** within the **electronic security perimeter** or to the network within the **electronic security perimeter**, and it is used for data transfer, vulnerability assessment, maintenance, or troubleshooting purposes.	**CIP-005** R1, R2. **CIP-010** R1, R2, R3, R4, Att 1.
Protection System	Protection System – • Protective relays which respond to electrical quantities,• Communications systems necessary for correct operation of protective functions• Voltage and current sensing devices providing inputs to protective relays,• Station dc supply associated with protective functions (including station batteries, battery chargers, and non-battery-based dc supply), and•	**protection system**	means an arrangement of equipment designed to do one or both of protect equipment and maintain the reliable operation of the **interconnected electric system** including: (i) protective relays which respond to electrical quantities; (ii) communications systems necessary for correct operation of protective functions;	**CIP-003** Section 4.1.2, 4.2.1. **CIP-005** Section 4.1.2, 4.2.1. **CIP-010** Section 4.1.2, 4.2.1. **CIP-013** Section 4.1.2, 4.2.1.

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	Control circuitry associated with protective functions through the trip coil(s) of the circuit breakers or other interrupting devices.		(iii) voltage-sensing and current-sensing devices providing inputs to protective relays; (iv) station direct current supply associated with protective functions including station batteries, battery chargers and non-battery-based direct current supply; and (v) control circuitry associated with protective functions through the trip coils of the circuit breakers or other interrupting devices.	
Reliability Coordinator	The entity that is the highest level of authority who is responsible for the Reliable Operation of the Bulk Electric System, has the Wide Area view of the Bulk Electric System, and has the operating tools, processes and procedures, including the authority to prevent or mitigate emergency operating situations in both next-day analysis and real-time operations. The Reliability Coordinator has the purview that is broad enough to enable the calculation of Interconnection Reliability Operating Limits, which may be based on the operating parameters of transmission systems beyond any Transmission Operator's vision.	[intentionally left blank] *(note the AESO's CADG definition of **reliability coordinator** is provided, though it is not used in the section 4.1.5 of the ARS CIP standards)*	**reliability coordinator** means the entity that is registered with **NERC** and as defined under the **NERC** functional model.	**CIP-003** Section 4.1.5. **CIP-005** Section 4.1.5. **CIP-010** Section 4.1.5. **CIP-013** Section 4.1.5.
Reliability Standard (standard, Standard OR NERC or Regional Reliability Standard)	A requirement, approved by the United States Federal Energy Regulatory Commission under Section 215 of the Federal Power Act, or approved or recognized by an applicable governmental authority in other jurisdictions, to provide for Reliable Operation of the Bulk-Power System. The term includes requirements for the operation of existing Bulk-Power System facilities, including cybersecurity protection, and the design of planned additions or modifications to such facilities to the extent necessary to provide for Reliable Operation of the Bulk-Power System, but the term does not include any requirement to	**reliability standards**	as defined in the *Transmission Regulation* means the reliability standards under section 19.	**CIP-003** Section 4.1, 4.1.2, 4.2, 4.2.1, 4.2.3, R4. **CIP-005** Section 4.1, 4.1.2, 4.2, 4.2.1, 4.2.3. **CIP-010** Section 4.1, 4.1.2, 4.2, 4.2.1, 4.2.3. **CIP-013** Section 4.1, 4.1.2, 4.2, 4.2.1, 4.2.3.

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	enlarge such facilities or to construct new transmission capacity or generation capacity.			
Remedial Action Scheme (RAS)	A scheme designed to detect predetermined System conditions and automatically take corrective actions that may include, but are not limited to, adjusting or tripping generation (MW and Mvar), tripping load, or reconfiguring a System(s). RAS accomplish objectives such as: • Meet requirements identified in the NERC Reliability Standards; • Maintain Bulk Electric System (BES) stability; • Maintain acceptable BES voltages; • Maintain acceptable BES power flows; • Limit the impact of Cascading or extreme events. The following do not individually constitute a RAS: a. Protection Systems installed for the purpose of detecting Faults on BES Elements and isolating the faulted Elements b. Schemes for automatic underfrequency load shedding (UFLS) and automatic undervoltage load shedding (UVLS) comprised of only distributed relays c. Out-of-step tripping and power swing blocking d. Automatic reclosing schemes e. Schemes applied on an Element for non-Fault conditions, such as, but not limited to, generator loss-of-field, transformer top-oil temperature, overvoltage, or overload to protect the Element against damage by removing it from service f. Controllers that switch or regulate one or more of the following: series or shunt reactive devices, flexible alternating current transmission system (FACTS) devices, phase-shifting transformers, variable-frequency transformers, or tap-changing transformers; and, that are located at and monitor quantities solely at the same station as the Element being switched or regulated g. FACTS	**remedial action scheme**	means a scheme designed to detect predetermined power system conditions and to automatically take corrective actions that may include, but are not limited to, adjusting or tripping generation (MW and MVar), tripping load, or reconfiguring a power system(s) in order to accomplish objectives such as: • maintaining stability of the **transmission system**; • maintaining acceptable **transmission system** voltages; • maintaining acceptable **transmission system** power flows; or • limiting the impact of **cascading** or extreme events. The following do not individually constitute a **remedial action scheme**: a) a **protection system** installed for the purpose of detecting faults on **transmission facilities** and isolating the faulted facilities; b) a **protection system** for automatic **underfrequency load shedding** and automatic **undervoltage load shed** comprised of only distributed relays; c) out-of-step tripping and power swing blocking schemes; d) an automatic reclosing scheme; e) a scheme applied on a facility for non-fault conditions, including, but not limited to: (i) generator loss-of-field; (ii) transformer top-oil temperature; (iii) overvoltage; or (iv) overload	**CIP-003** Section 4.1.2, 4.2.1. **CIP-005** Section 4.1.2, 4.2.1. **CIP-010** Section 4.1.2, 4.2.1. **CIP-013** Section 4.1.2, 4.2.1.

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	controllers that remotely switch static shunt reactive devices located at other stations to regulate the output of a single FACTS device h. Schemes or controllers that remotely switch shunt reactors and shunt capacitors for voltage regulation that would otherwise be manually switched i. Schemes that automatically de-energize a line for a non-Fault operation when one end of the line is open j. Schemes that provide anti-islanding protection (e.g., protect load from effects of being isolated with generation that may not be capable of maintaining acceptable frequency and voltage) k. Automatic sequences that proceed when manually initiated solely by a System Operator l. Modulation of HVdc or FACTS via supplementary controls, such as angle damping or frequency damping applied to damp local or inter-area oscillations m. Sub-synchronous resonance (SSR) protection schemes that directly detect sub-synchronous quantities (e.g., currents or torsional oscillations) n. Generator controls such as, but not limited to, automatic generation control (AGC), generation excitation [e.g. automatic voltage regulation (AVR) and power system stabilizers (PSS)], fast valving, and speed governing		to protect the facility against damage by removing it from service; f) a controller that switches or regulates one or more of the following: (i) series or shunt reactive devices, (ii) flexible alternating current transmission system devices, (iii) phase-shifting transformers, variable-frequency transformers, or (iv) tap-changing transformers and that is located at and monitors quantities solely at the same station as the facility being switched or regulated; g) a flexible alternating current transmission controller that remotely switches static shunt reactive devices located at other stations to regulate the output of a single flexible alternating current transmission device; h) a scheme or controller that remotely switches shunt reactors and shunt capacitors for voltage regulation that would otherwise be manually switched; i) a scheme that automatically de-energizes a line for a non-fault operation when one end of the line is open; j) a scheme that provides anti-islanding protection (e.g. protects load from the effects of being isolated with generation that may not be capable of maintaining acceptable frequency and voltage); k) an automatic sequence that proceeds when manually initiated solely by a power system operator; l) a temporary SCADA action scheme that may be implemented to facilitate construction of transmission	

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			projects to assist in system performance during temporary build stages; m) modulation of high voltage direct current or flexible alternating current transmission via supplementary controls, such as angle damping or frequency damping applied to damp local or inter-area oscillations; n) a sub-synchronous resonance protection scheme that directly detects sub-synchronous quantities (e.g., currents or torsional oscillations); or o) a generator control including, but not limited to: (i) automatic generation control; (ii) generation excitation (e.g. automatic voltage regulation and power system stabilizers); (iii) fast valving, and (iv) speed governing.	
Removable Media	Storage media that (i) are not Cyber Assets, (ii) are capable of transferring executable code, (iii) can be used to store, copy, move, or access data, and (iv) are directly connected for 30 consecutive calendar days or less to a BES Cyber Asset, a network within an ESP, or a Protected Cyber Asset. Examples include, but are not limited to, floppy disks, compact disks, USB flash drives, external hard drives, and other flash memory cards/drives that contain nonvolatile memory.	**removable media**	means storage media that (i) are not **cyber assets**, (ii) are capable of transferring executable code, (iii) can be used to store, copy, move, or access data, and (iv) are directly connected for 30 consecutive **days** or less to a **BES cyber asset**, a network within an **electronic security perimeter**, or a **protected cyber asset**. Examples include, but are not limited to, floppy disks, compact disks, USB flash drives, external hard drives, and other flash memory cards/drives that contain nonvolatile memory.	****Proposed new definition**** **CIP-003** R1, Att 1, Att 2. **CIP-010** R4, M4, Att 1, Att 2.
Reportable Cyber Security Incident	A Cyber Security Incident that compromised or disrupted:- A BES Cyber System that performs one or more reliability tasks of a functional entity;- An Electronic Security Perimeter of a high or medium impact BES Cyber System; or- An Electronic Access Control or Monitoring System of a high or medium impact BES Cyber System.	**reportable cyber security incident**	means a **cyber security incident** that has compromised or disrupted one or more reliability tasks of a functional entity.	**CIP-003** Att 1, Att 2.

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		technical feasibility exception	means a variance from a requirement in the CIP Cyber Security **reliability standards** that achieves a level of **reliability** of the **interconnected electric system** that is comparable to or higher than compliance with the requirement.	**CIP-003** Guidelines and Technical Basis
Transient Cyber Asset	A Cyber Asset that is: 1. capable of transmitting or transferring executable code, 2. not included in a BES Cyber System, 3. not a Protected Cyber Asset (PCA) associated with high or medium impact BES Cyber Systems, and 4. directly connected (e.g., using Ethernet, serial, Universal Serial Bus, or wireless including near field or Bluetooth communication) for 30 consecutive calendar days or less to a: • BES Cyber Asset, • network within an Electronic Security Perimeter (ESP) containing high or medium impact BES Cyber Systems, or • PCA associated with high or medium impact BES Cyber Systems. Examples of Transient Cyber Assets include, but are not limited to, Cyber Assets used for data transfer, vulnerability assessment, maintenance, or troubleshooting purposes.	**transient cyber asset**	means a **cyber asset** that is: 1. capable of transmitting or transferring executable code, 2. not included in a **BES cyber system**, 3. not a **protected cyber asset** associated with High or Medium Impact **BES cyber systems**, and 4. directly connected (e.g., using Ethernet, serial, Universal Serial Bus, or wireless including near field or Bluetooth communication) for 30 consecutive **days** or less to a: • **BES cyber asset**, • network within an **electronic security perimeter** containing high or medium impact **BES cyber systems**, or • **protected cyber asset** associated with High or Medium Impact **BES cyber systems**. Examples of **transient cyber assets** include, but are not limited to, **cyber assets** used for data transfer, vulnerability assessment, maintenance, or troubleshooting purposes.	****Proposed new definition**** **CIP-003** R1, Att 1, Att 2. **CIP-010** R4, M4, Att 1, Att 2.
Transmission	An interconnected group of lines and associated equipment for the movement or transfer of electric energy between points of supply and points at	Currently "transmission"	No definition. Definitions of electric distribution system and transmission facility are provided below	**CIP-003** Section 4.1.2, 4.2.1.3. **CIP-005** Section 4.1.2, 4.2.1.3. **CIP-010** Section 4.1.2, 4.2.1.3.

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	which it is transformed for delivery to customers or is delivered to other electric systems.			**CIP-013** Section 4.1.2, 4.2.1.3.
		electric distribution system	as defined in the **Act** means the plant, works, equipment, systems and services necessary to distribute electricity in a service area, but does not include a **generating unit** or a **transmission facility**	
		transmission facility	as defined in the **Act** means an arrangement of conductors and transformation equipment that transmits electricity from the high voltage terminal of the generation transformer to the low voltage terminal of the step down transformer operating phase to phase at a nominal high voltage level of more than 25 000 volts to a nominal low voltage level of 25000 volts or less, and includes (i) transmission lines energized in excess of 25000 volts, (ii) insulating and supporting structures, (iii) substations, transformers and switchgear, (iv) operational, telecommunication and control devices, (v) all property of any kind used for the purpose of, or in connection with, the operation of the transmission facility, including all equipment in a substation used to transmit electric energy from (A) the low voltage terminal, to (B) **electric distribution system** lines that exit the substation and are energized at 25 000 volts or less, and (vi) connections with electric systems in jurisdictions bordering Alberta, but does not include a **generating unit** or an **electric distribution system**.	
Transmission Operator	The entity responsible for the reliability of its "local" transmission system, and that operates or directs the operations of the transmission Facilities.	the **operator** of a **transmission facility**	(*Note: see individual definitions separately in this document)*	**CIP-003** Section 4.1.6. **CIP-005** Section 4.1.6. **CIP-010** Section 4.1.6. **CIP-013** Section 4.1.6.

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Transmission Owner	The entity that owns and maintains transmission Facilities.	the **legal owner** of a **transmission facility**	(*Note: see individual definitions separately in this document)*	**CIP-003** Section 4.1.7, 4.2.1. **CIP-005** Section 4.1.7, 4.2.1. **CIP-010** Section 4.1.7, 4.2.1. **CIP-013** Section 4.1.7, 4.2.1.
underfrequency Load shedding (UFLS)	No definition	**underfrequency load shedding**	means the automatic or manual actions required to shed system load when the system frequency falls below the normal system operating frequency of sixty (60) Hz in order to allow for the return to a secure state.	**CIP-003** Section 4.1.2, 4.2.1. **CIP-005** Section 4.1.2, 4.2.1. **CIP-010** Section 4.1.2, 4.2.1. **CIP-013** Section 4.1.2, 4.2.1.
undervoltage Load shed (UVLS)	No definition	**under voltage load shed**	means a protection scheme that enables pre-configured devices to automatically shed load to stabilize voltage when voltage falls below predetermined limits.	**CIP-003** Section 4.1.2, 4.2.1. **CIP-005** Section 4.1.2, 4.2.1. **CIP-010** Section 4.1.2, 4.2.1. **CIP-013** Section 4.1.2, 4.2.1.