
Project QC-2017-03**Standard VAR-001-4.2 – Voltage and Reactive Control**

1. ASSESSMENT OF RELEVANCE

Voltage collapse can cause tripping and lead to power failures on the system, while excessive voltage levels increase the risk of damage to power system equipment. The requirements of the VAR (Voltage and Reactive Control) standards are designed to maintain system voltage and reactive power within prescribed limits in real time.

VAR-001-4.2 succeeds VAR-001-4.1. It ensures real-time monitoring of voltage levels, reactive flows and reactive resources. Equipment integrity and system reliability are thus preserved and voltage can be adjusted at all times to remain within appropriate ranges.

VAR-001-4.2 was amended as part of NERC Project 2016–EPR-02 errata revisions. Two minor changes were made to the text of the standard. Other than that, the essence of the standard remains unchanged.

VAR-001-4.2 was adopted in the U.S. on August 10, 2017. The effective date is September 26, 2017.

In Québec, the Régie adopted VAR-001-4.1 on September 30, 2016. The standard has been in effect since January 1, 2017.

Given the minor changes made in VAR-001-4.2, the Coordinator requests that the standard be adopted promptly.

2. PREREQUISITES TO ADOPTION

None

3. MODIFICATIONS TO OTHER STANDARDS OR TO GLOSSARY DEFINITIONS**3.1. Standards or requirements to retire on the effective date**

VAR-001-4.1

3.2. Definitions to add to the glossary

None

3.3. Definitions to be modified in the glossary

None

3.4. Definitions to remove from the glossary

None

4. APPLICABILITY

The standard applies solely to Transmission Operators (TOPs). It thus addresses only the Reliability Coordinator.

5. SPECIFIC PROVISIONS FOR QUÉBEC

This standard applies to main transmission system (RTP) facilities only.

6. PROPOSED EFFECTIVE DATES

Since only the Coordinator in its capacity as TOP is addressed by this standard and it has already been applying the standard on a voluntary basis since it came into effect in the U.S., the Coordinator proposes that the standard come into effect promptly in Québec.

Standard	Effective date in U.S.	Proposed effective date in Québec	Justification
VAR-001-4.2	September 26, 2017	April 1, 2018	Harmonization of practices with other jurisdictions

7. PRELIMINARY IMPACT ASSESSMENT

	Low	Moderate	High
Implementation of the standard	X		
Enforcement of the standard	X		
Compliance monitoring	X		

Definitions:

Low:	Normal industry practice that only requires minor adjustments to existing processes or practices.
Moderate:	Change that requires the allocation of some physical, human or financial resources to implement, enforce and monitor compliance with the proposed standard.
High:	Change that requires the allocation of significant physical, human or financial resources to plan, implement, enforce and monitor compliance with the proposed standard.