

Milestones: NERC Reliability Standards

The U.S. electricity industry will operate under mandatory, enforceable reliability standards for the first time as of June 18, 2007. Bulk power system participants that violate the standards will face enforcement actions including possible fines of up to \$1 million a day.

The North American Electric Reliability Corporation (NERC) and the industry have worked intensively in the past few years to transform decades of industry criteria, guides, policies and principles into enforceable NERC Reliability Standards. The following milestones depict the evolution of voluntary industry guidelines into mandatory standards, and the motivating forces behind the change.

1960s	Electricity industry operations followed: (a) criteria and guides for reliable operations, developed by the North American Power Systems Interconnection Committee (NAPSIC), a utility organization; and (b) reliability planning guides in some regions.
Nov. 9, 1965	Blackout caused 30 million people to lose power in the northeastern U.S. and southeastern Ontario, Canada.
1967	Legislation (U.S. Electric Power Reliability Act of 1967) proposed the creation of a council on power coordination. Although not enacted, the proposed legislation stimulated the development of an industry reliability council.
1967-68	Federal Power Commission (predecessor of the Federal Energy Regulatory Commission) recommended the formation of a council on power coordination made up of representatives from each of the nation's regional coordinating organizations, to exchange and disseminate information and to review, discuss and assist in resolving interregional coordination matters.
June 1, 1968	National Electric Reliability Council (NERC) was established by the electric utility industry, in response to the 1965 blackout. Nine regional reliability organizations were formalized under NERC. Also formalized were regional planning coordination guides, which NERC maintained. NAPSIC operations criteria and guides continued to be maintained and practiced voluntarily.
July 13-14, 1977	Blackout in New York City occurred. This led to the first, limited reliability provisions in federal legislation. The legislation enabled the federal government to propose voluntary standards, an authority never exercised.
1980	NAPSIC became part of NERC, bringing the reliability roles of operations and planning together in one organization. NERC adopted NAPSIC operations criteria and guides.

- 1987 NERC updated its operations criteria and guides, renamed them as operating policies, and added requirement statements (“shall do this”) and guideline statements (“should do this”).
- 1992 NERC Board of Trustees stated for the first time that conformance to NERC and regional reliability policies, criteria and guides should be mandatory to ensure reliability, in one of six Agreements in Principle adopted by the Board. (NERC still had no authority to enforce compliance with the policies, criteria and guides.)
- 1993 Building on the Agreements in Principle, NERC published “NERC 2000,” a four-part action plan for the future, which recommended mandatory compliance with NERC policies, criteria and guides; and a process for addressing violations.
- 1996 Two major blackouts in the western United States prompted some Western Systems Coordinating Council members to enter voluntarily into agreements to pay fines if they violated certain reliability standards. (WSCC, a regional reliability organization, is now the Western Electricity Coordinating Council.)
- 1997 Electric System Reliability Task Force established by the U.S. Department of Energy, and an independent “blue ribbon” panel (the Electric Reliability Panel) formed by NERC, both determined grid reliability rules must be mandatory and enforceable to ensure reliability in an increasingly competitive marketplace. Both groups recommended the creation of an independent, self-regulatory, electric reliability organization to develop and enforce reliability standards throughout North America. Both groups concluded that federal legislation in the United States was necessary to accomplish this.
- 1997 NERC set out to implement the blue-ribbon panel’s recommendation of a self-regulatory reliability organization. NERC converted its planning policies, principles and guides into planning standards, which the NERC Board of Trustees approved.
- May 1, 2002 NERC operating policies and planning standards became mandatory and enforceable in Ontario.
- Aug. 14, 2003 North America experienced its worst blackout ever, as 50 million people lost power in the northeastern and midwestern U.S. and Ontario, Canada.
April 5, 2004 Final report of the U.S.-Canada Power System Outage Task Force on the 2003 blackout concluded the single most important recommendation for preventing future blackouts, and reducing the scope of those that occur, is for the U.S. government to make reliability standards mandatory and enforceable.
- 3Q 2004 Bilateral Electric Reliability Oversight Group (BEROG) established as a forum for identifying and resolving reliability issues in an international, government-to-

government context. BEROG grew out of the U.S.-Canada Power System Outage Task Force.

Nov. 12, 2004 NERC translated its operating policies, planning standards and compliance requirements into an integrated and comprehensive set of 90 measurable standards called “Version 0 Reliability Standards.”

- Feb. 8, 2005 NERC Board of Trustees adopted the Version 0 standards. Stakeholders overwhelmingly supported the standards.
- April 1, 2005 Version 0 Reliability Standards became effective. Voluntary compliance was expected as a matter of good utility practice.
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- Aug. 8, 2005 U.S. Energy Policy Act of 2005 authorized the creation of a self-regulatory “electric reliability organization” that would span North America, with FERC oversight in the U.S. The legislation stated that compliance with reliability standards would be mandatory and enforceable.
- April 4, 2006 NERC filed an application with FERC to become the “electric reliability organization” in the U.S.
- NERC filed with FERC 102 reliability standards – the 90 Version 0 standards plus 12 additional standards developed in the interim.
- NERC filed the same information with the Canadian provincial authorities in Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Quebec and Saskatchewan, and with the National Energy Board of Canada, for recognition as the “electric reliability organization” in Canada.
- July 20, 2006 FERC certified NERC as the “electric reliability organization” for the United States. Sept.-Dec. 2006 NERC signed Memorandums of Understanding with Ontario, Quebec, Nova Scotia and the National Energy Board of Canada.
- Jan. 1, 2007 The North American Electric Reliability Council became the North American Electric Reliability Corporation. The new entity has a large membership base representing a cross-section of the industry.
- March 15, 2007 FERC approved 83 NERC Reliability Standards, the first set of legally enforceable standards for the U.S. bulk power system, effective June 4, 2007. FERC stated that voluntary compliance with NERC’s additional standards should continue as good utility practice.

- April 19, 2007 FERC approved eight NERC delegation agreements by which NERC will delegate its authority to monitor and enforce compliance with NERC Reliability Standards in the United States to eight Regional Entities, with NERC continuing in an oversight role.
- June 18, 2007 Compliance with approved NERC Reliability Standards will become mandatory and enforceable in the United States.

Version History

Version	Date	Owner	Change Tracking
1	January 1, 2008		
1	May 19, 2014	Standards Information Staff	Updated Template