

STATE OF MINNESOTA

**DISTRIBUTED GENERATION INTERCONNECTION
REQUIREMENTS**

TABLE OF CONTENTS

	Foreword	2
1.	Introduction	3
2.	References	6
3.	Types of Interconnections	7
4.	Interconnection Issues and Technical Requirements	10
5.	Generation Metering, Monitoring and Control	13
	Table 5A – Metering, Monitoring and Control Requirements	14
6.	Protective Devices and Systems	17
	Table 6A – Relay Requirements	19
7.	Agreements	20
8.	Testing Requirements	21
Attachments:	<u>System Diagrams</u>	
	Figure 1 – Open Transition	25
	Figure 2 – Closed Transition	26
	Figure 3 – Soft Loading Transfer With Limited Parallel Operation	27
	Figure 4 – Soft Loading Transfer With Limited Parallel Operation	28
	Figure 5 – Extended Parallel With Transfer-Trip	29

**SCHEDULE 3 – SAFETY STANDARDS, REQUIRED OPERATING PROCEDURES FOR INTERCONNECTED OPERATIONS,
AND FUNCTIONS TO BE PERFORMED BY ANY CONTROL AND PROTECTIVE APPARATUS**

Utility's safety standards, required operating procedures for interconnected operations, and functions to be performed by any control and protective equipment are contained in the Technical Interconnection and Interoperability Requirements (TIIR) as adopted by the Minnesota Public Utilities Commission on November 14, 2019. As the TIIR constitutes a very large document, it is incorporated here by reference.