

On the usability of climate science for decision making in the electricity sector

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AMERICAN NATIONAL STANDARD

APPENDIX B

FREQUENCY OF MAINTENANCE TESTS

an excerpt from the
ANSI/NETA Standard for Maintenance Testing
Specifications for Electrical Power Equipment and Systems

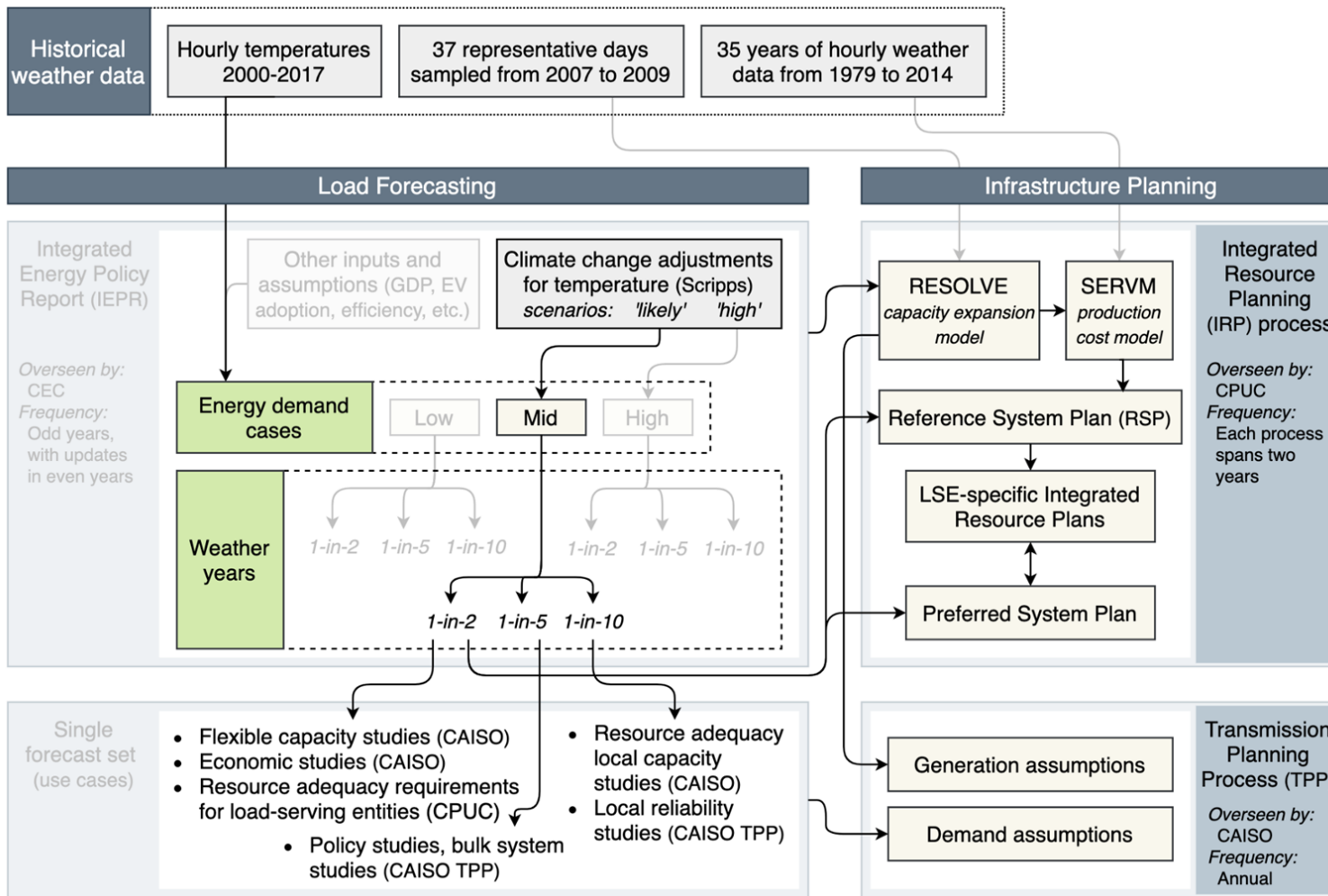
Secretariat
 NETA (InterNational Electrical Testing Association)



Approved by
 American National Standards Institute



APPENDIX B				
Frequency of Maintenance Tests				
Inspections and Tests				
Frequency in Months				
(Multiply These Values by the Factor in the Maintenance Frequency Matrix)				
Section	Description	Visual	Visual & Mechanical	Visual & Mechanical & Electrical
7.1	Switchgear & Switchboard Assemblies	12	12	24
7.2	Transformers			
7.2.1.1	Small Dry-Type Transformers	2	12	36
7.2.1.2	Large Dry-Type Transformers	1	12	24
7.2.2	Liquid-Filled Transformers	1	12	24
	Sampling	—	—	12
7.3	Cables			
7.3.1	Low-Voltage, Low-Energy	—	—	—
7.3.2	Low-Voltage, 600-Volt Maximum	2	12	36
7.3.3	Medium- and High-Voltage	2	12	36
7.4	Metal-Enclosed Busways	2	12	24
	Infrared Only	—	—	12
7.5	Switches			
7.5.1.1	Air, Low-Voltage	2	12	36
7.5.1.2	Air, Medium-Voltage, Metal-Enclosed	—	12	24
7.5.1.3	Air, Medium- and High-Voltage Open	1	12	24
7.5.2	Oil, Medium-Voltage	1	12	24
7.5.3	Vacuum, Medium-Voltage	1	12	24
7.5.4	Medium-Voltage, SF ₆	1	12	24
7.5.5	Cutouts	12	24	24
7.6	Circuit Breakers			
7.6.1.1	Air, Insulated-Case/Molded-Case	1	12	36
7.6.1.2	Air, Low-Voltage Power	1	12	36
7.6.1.3	Air, Medium-Voltage	1	12	36
7.6.2	Oil, Medium-Voltage	1	12	36
	Sampling	—	—	12
7.6.2	Oil, High-Voltage	1	12	12
	Sampling	—	—	12
7.6.3	Vacuum, Medium-Voltage	1	12	24
7.6.4	SF ₆	1	12	12
7.7	Circuit Switchers	1	12	12
7.8	Network Protectors	12	12	24



(1) Relies heavily on historical data

(2) Climate change is considered only in a very limited way

(3) Any individual planning decision only uses one demand scenario

Brockway & Dunn. Weathering Adaptation: Grid Infrastructure Planning in a Changing Climate. *Climate Risk Management* 2020.

How electricity sector planning works today

Predict-then-act models based on historical weather data

Electricity planning models implicitly assume performance that may no longer be true

What would it mean to be more climate-aware?

Electricity planners must figure out how to use information about multiple plausible futures

Understand where embedded assumptions exist & modify where they are no longer accurate