

INL/RPT-25-87920  
Revision 0

# Advanced Conductor Scan Report Addendum State-Level Maps of Reconductoring Potential

August 2025

*Taylor Nelson*

*Jonathan Tacke*

*Shafiul Alam*

*Jake Gentle*

**DISCLAIMER**

This information was prepared as an account of work sponsored by an agency of the U.S. Government. Neither the U.S. Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness, of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. References herein to any specific commercial product, process, or service by trade name, trade mark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the U.S. Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the U.S. Government or any agency thereof.



**INL/RPT-25-87920**

**Revision 0**

# **Advanced Conductor Scan Report Addendum**

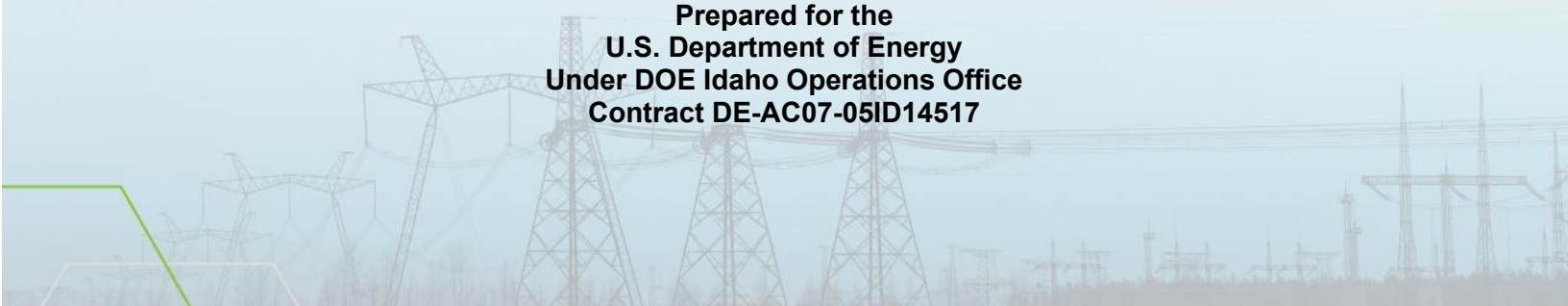
## **State-Level Maps of Reconducting Potential**

**August 2025**

**Idaho National Laboratory  
Idaho Falls, Idaho 83415**

**<http://www.inl.gov>**

**Prepared for the  
U.S. Department of Energy  
Under DOE Idaho Operations Office  
Contract DE-AC07-05ID14517**





*Page intentionally left blank*





## FOREWORD

In 2024, the Idaho National Laboratory (INL) published “*Advanced Conductor Scan Report*” (INL/RPT-23-75873) a survey styled report overviewing the current trends in the overhead conductor industry and the technologies that are rapidly seeing commercial adoption. In that report, reconductoring was identified as one of the primary use cases for these conductors. Reconductoring is an attractive option for transmission owners to rapidly decongest their transmission systems and achieve increased capacity, particularly for short lines. The term ‘short line’ does not have a rigorous definition in industry; however, it is generally considered to mean lines and line segments that are shorter than 50 miles between substations. Using this definition, the report estimates roughly 117,500 miles of transmission line in the United States (U.S.) are candidates for reconductoring. This does not imply that all lines *should* or even *can* be reconducted. Rather, this is an estimate of how many miles of lines meet the basic criteria for a potential reconductoring project.

Following publication of that 2024 report, INL was contacted by several industry stakeholders about clarifying this reconductoring potential. Specifically, a desire was expressed for the reconductoring candidates to be identified on a per-state basis, as well as by voltage level. Therefore, this addendum was commissioned by the Department of Energy’s Office of Electricity (OE), asking INL to make a closer examination of the potential to reconductor segments of transmission lines in the U.S., and provide this information in an easily accessible visual format. Included in this addendum are maps from all 50 states and Puerto Rico. These maps show the locations of all short line segments in each state, color-coded according to voltage level. Additionally, each state map includes the total number of miles for that state.

The maps in this addendum were generated from information contained in the Homeland Infrastructure Foundation-Level Data (HIFLD) Transmission Lines data set. HIFLD is curated and maintained by the Geospatial Management Office under the Department of Homeland Security. The tool features the best available geospatial data for a broad range of critical infrastructure assets. The Transmission Lines data set features geospatial information for all publicly listed transmission lines in the U.S. with voltages higher than 34 kV; however the information for lines at the 34.5-kV level should not be assumed to be exhaustive. This data set is updated regularly and the information used for the maps herein is accurate as of January 2025.





*Page intentionally left blank*





## CONTENTS

FOREWORD .....	v
ALABAMA .....	1
ALASKA .....	2
ARIZONA.....	3
ARKANSAS.....	4
CALIFORNIA .....	5
COLORADO .....	6
CONNECTICUT .....	7
DELAWARE .....	8
FLORIDA .....	9
GEORGIA.....	10
HAWAII .....	11
IDAHO.....	12
ILLINOIS.....	13
INDIANA .....	14
IOWA.....	15
KANSAS .....	16
KENTUCKY.....	17
LOUISIANA.....	18
MAINE .....	19
MARYLAND .....	20
MASSACHUSETTS.....	21
MICHIGAN .....	22
MINNESOTA.....	23
MISSISSIPPI .....	24
MISSOURI .....	25
MONTANA .....	26
NEBRASKA.....	27
NEVADA.....	28
NEW HAMPSHIRE .....	29
NEW JERSEY .....	30



NEW MEXICO.....	31
NEW YORK.....	32
NORTH CAROLINA.....	33
NORTH DAKOTA.....	34
OHIO.....	35
OKLAHOMA.....	36
OREGON.....	37
PENNSYLVANIA.....	38
PUERTO RICO.....	39
RHODE ISLAND.....	40
SOUTH CAROLINA.....	41
SOUTH DAKOTA.....	42
TENNESSEE.....	43
TEXAS.....	44
UTAH.....	45
VERMONT.....	46
VIRGINIA.....	47
WASHINGTON.....	48
WEST VIRGINIA.....	49
WISCONSIN.....	50
WYOMING.....	51



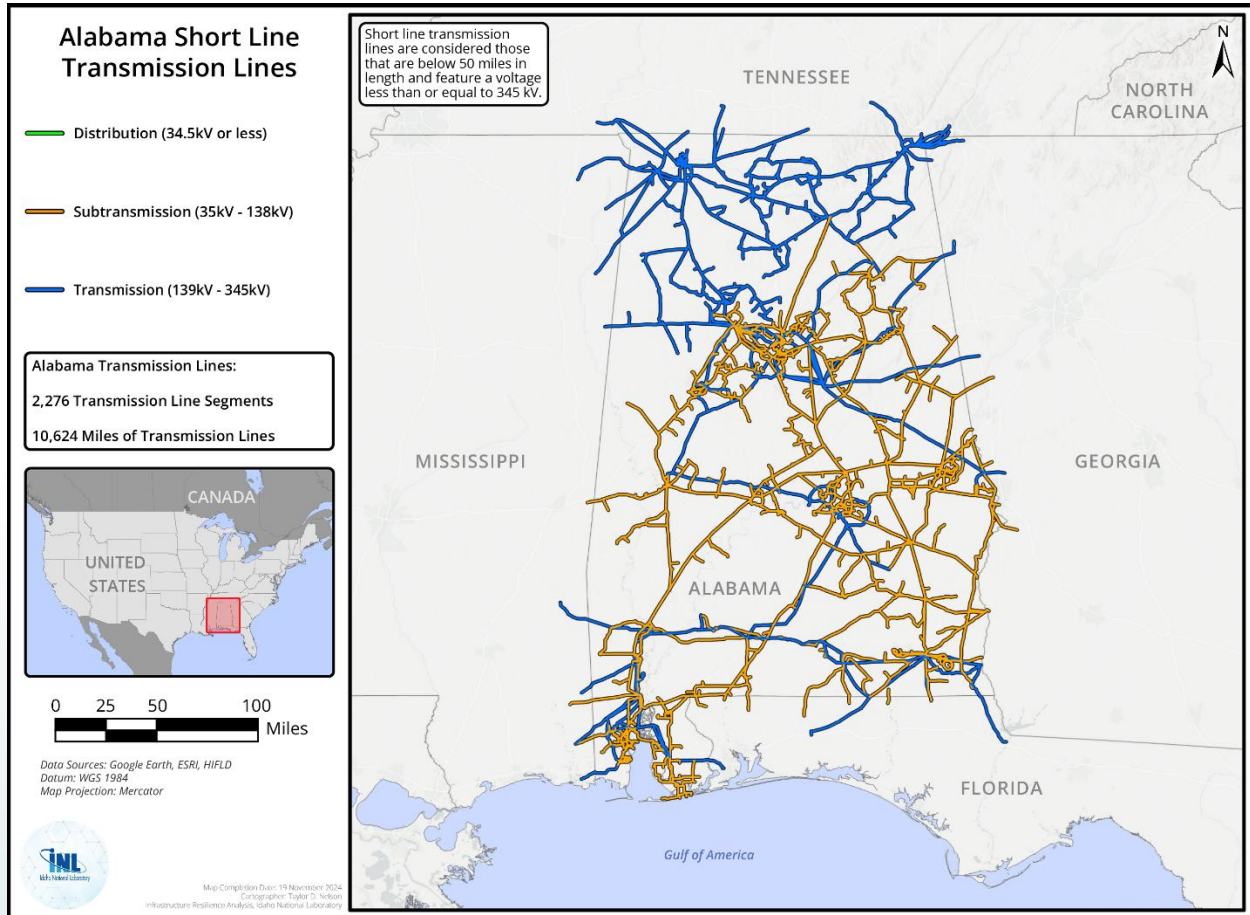


# Advanced Conductor Scan Report Addendum

## State-Level Maps

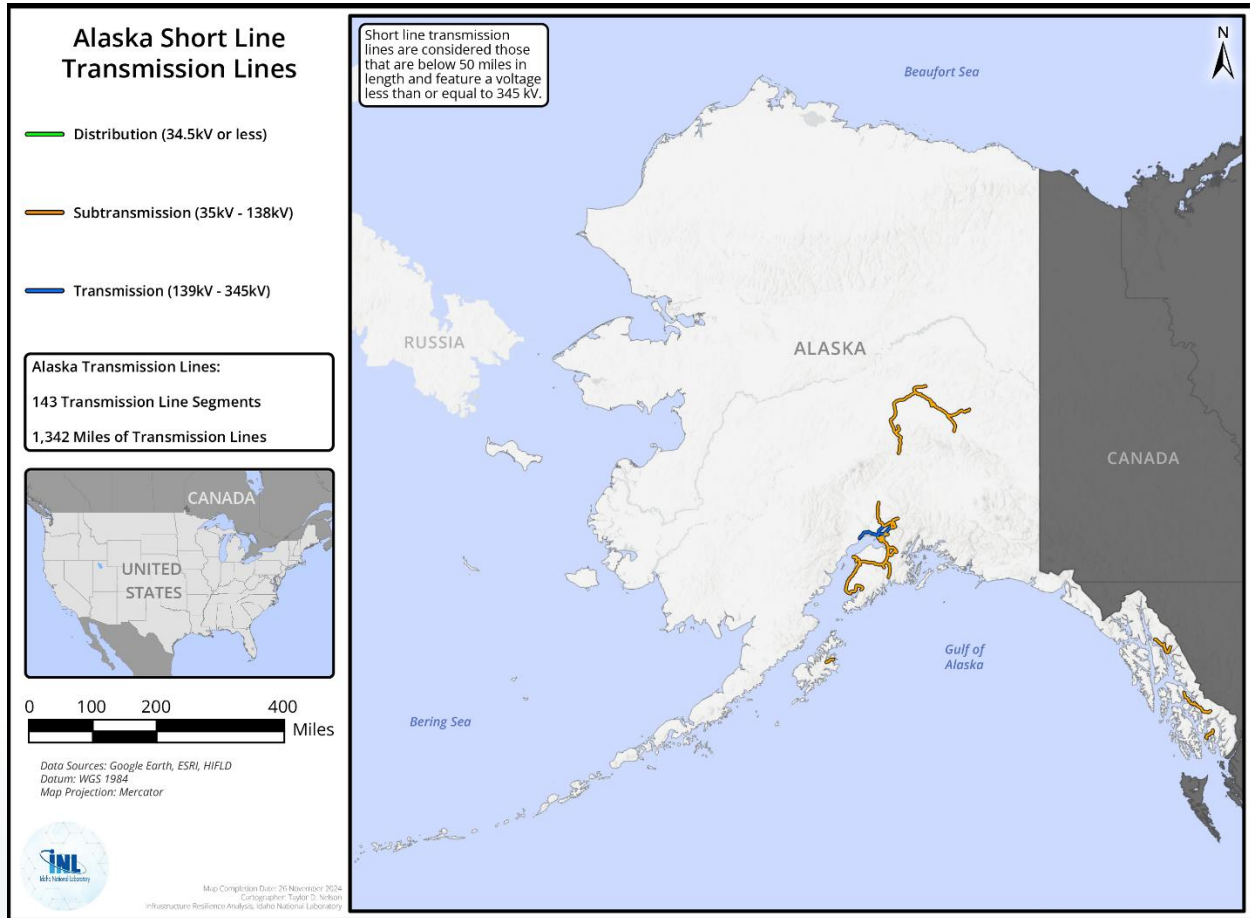
### of Reconductoring Potential

#### ALABAMA



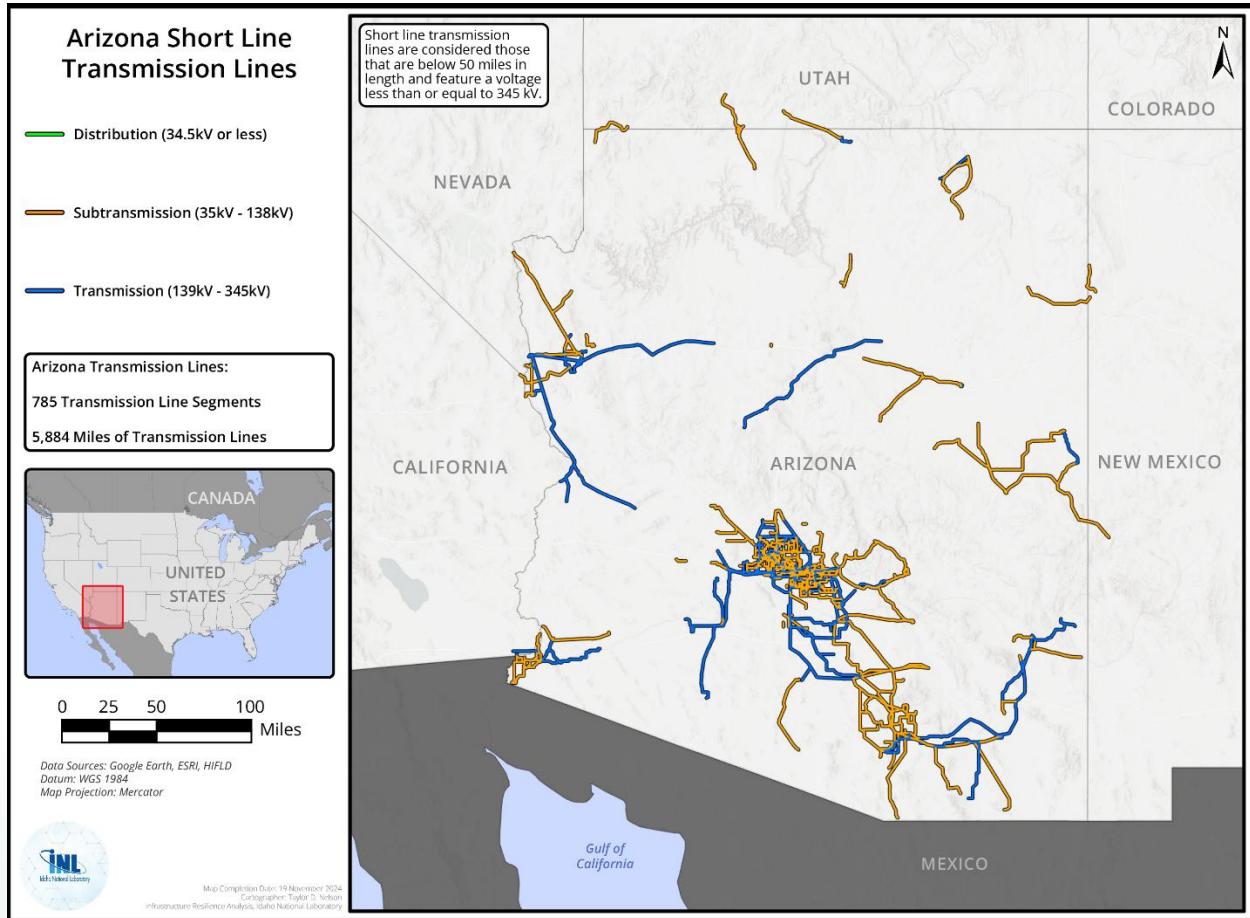


# ALASKA



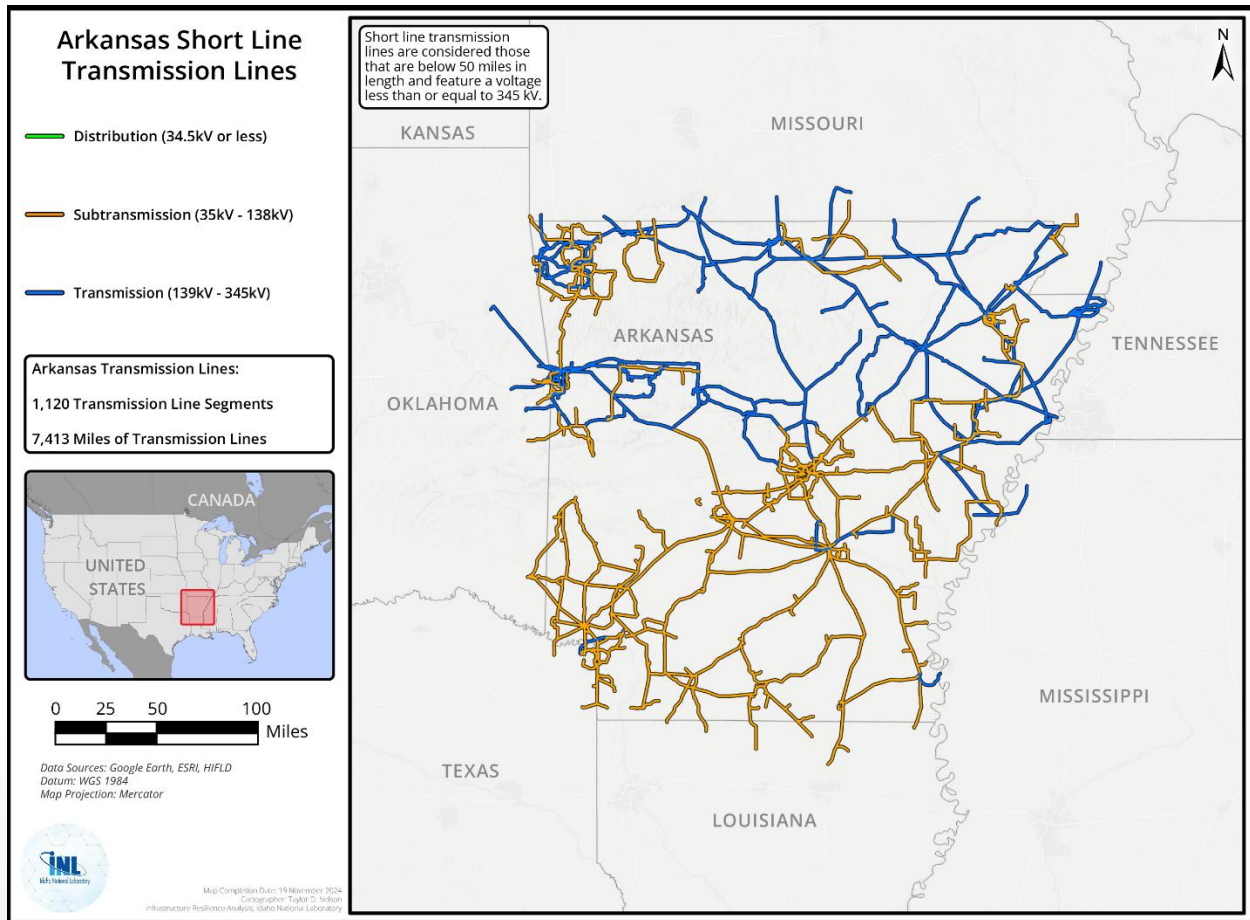


# ARIZONA



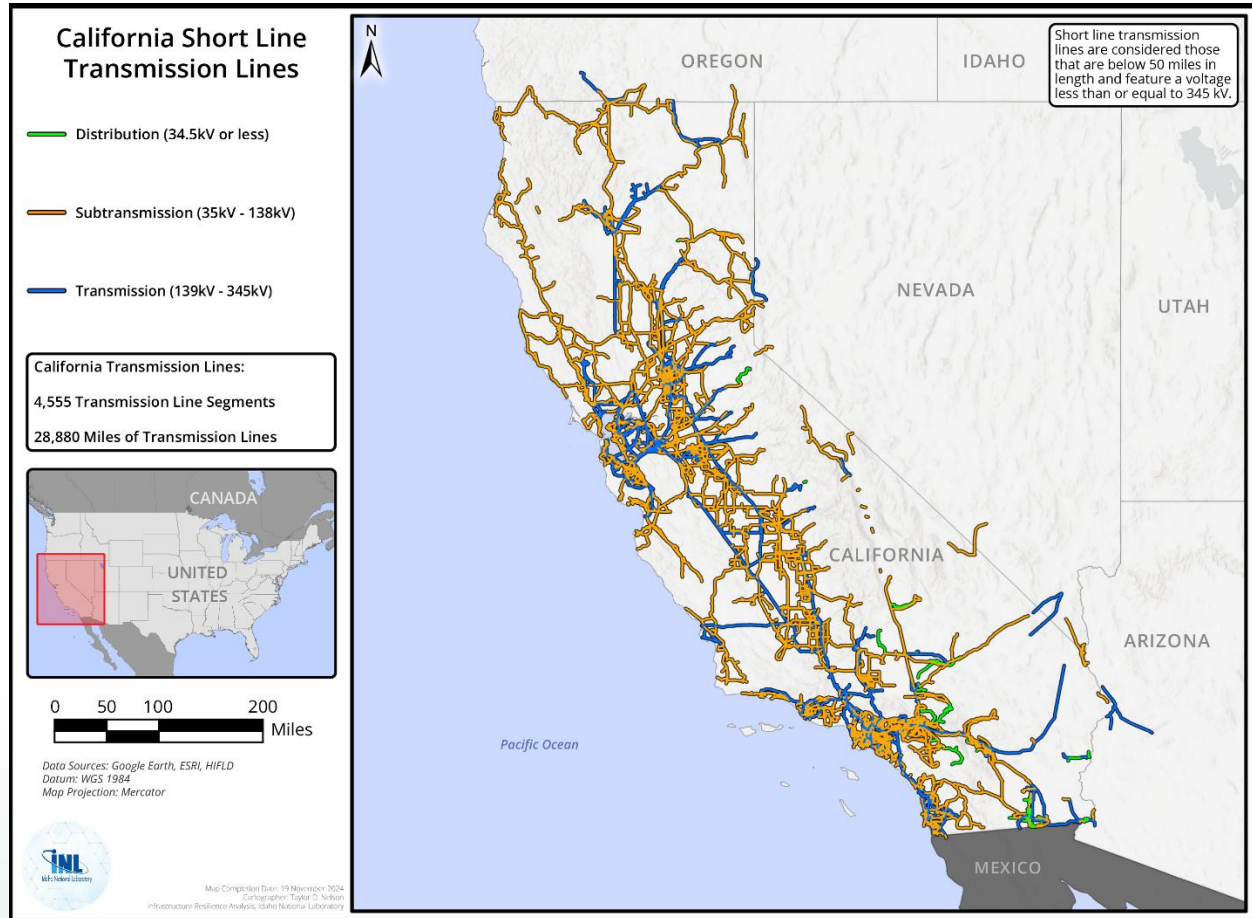


# ARKANSAS



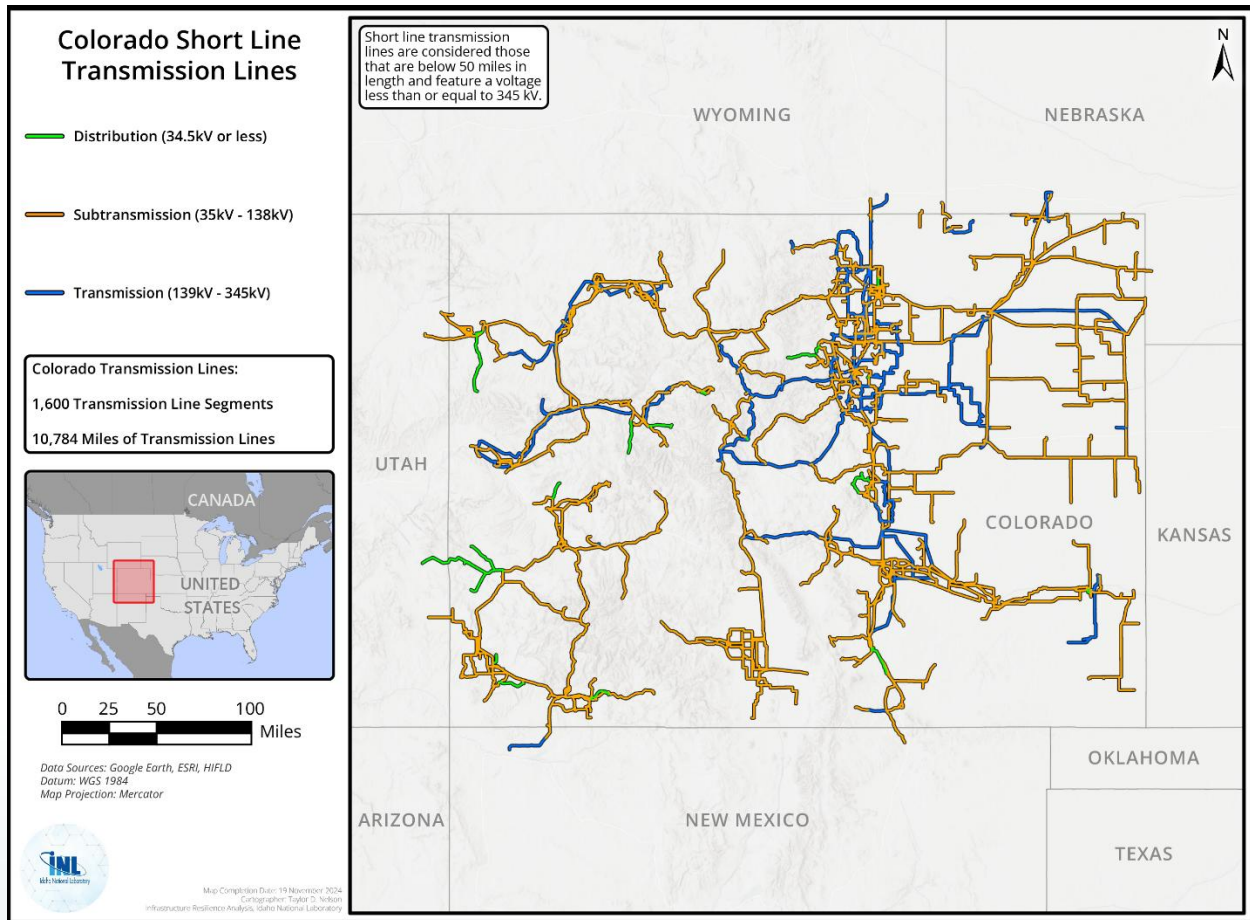


# CALIFORNIA



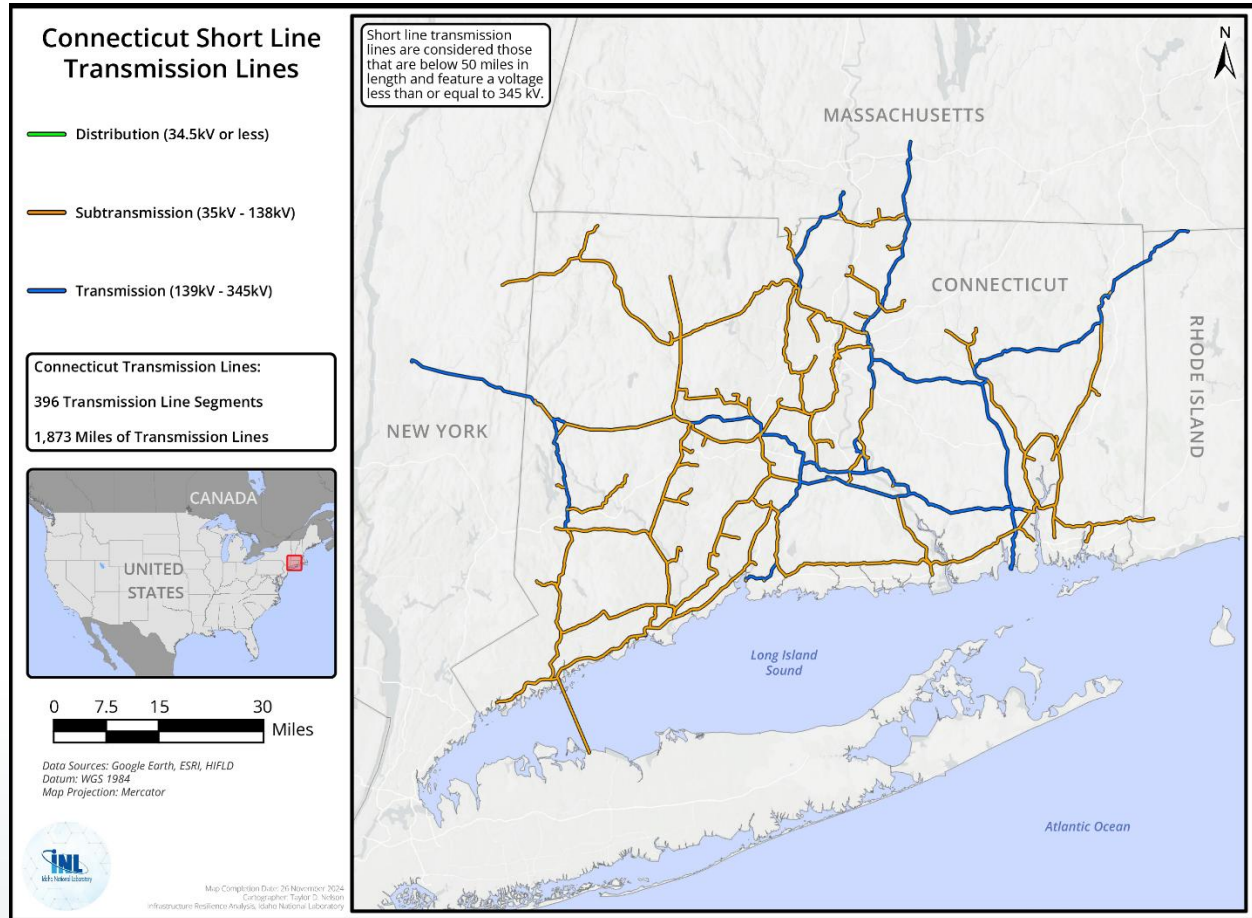


# COLORADO



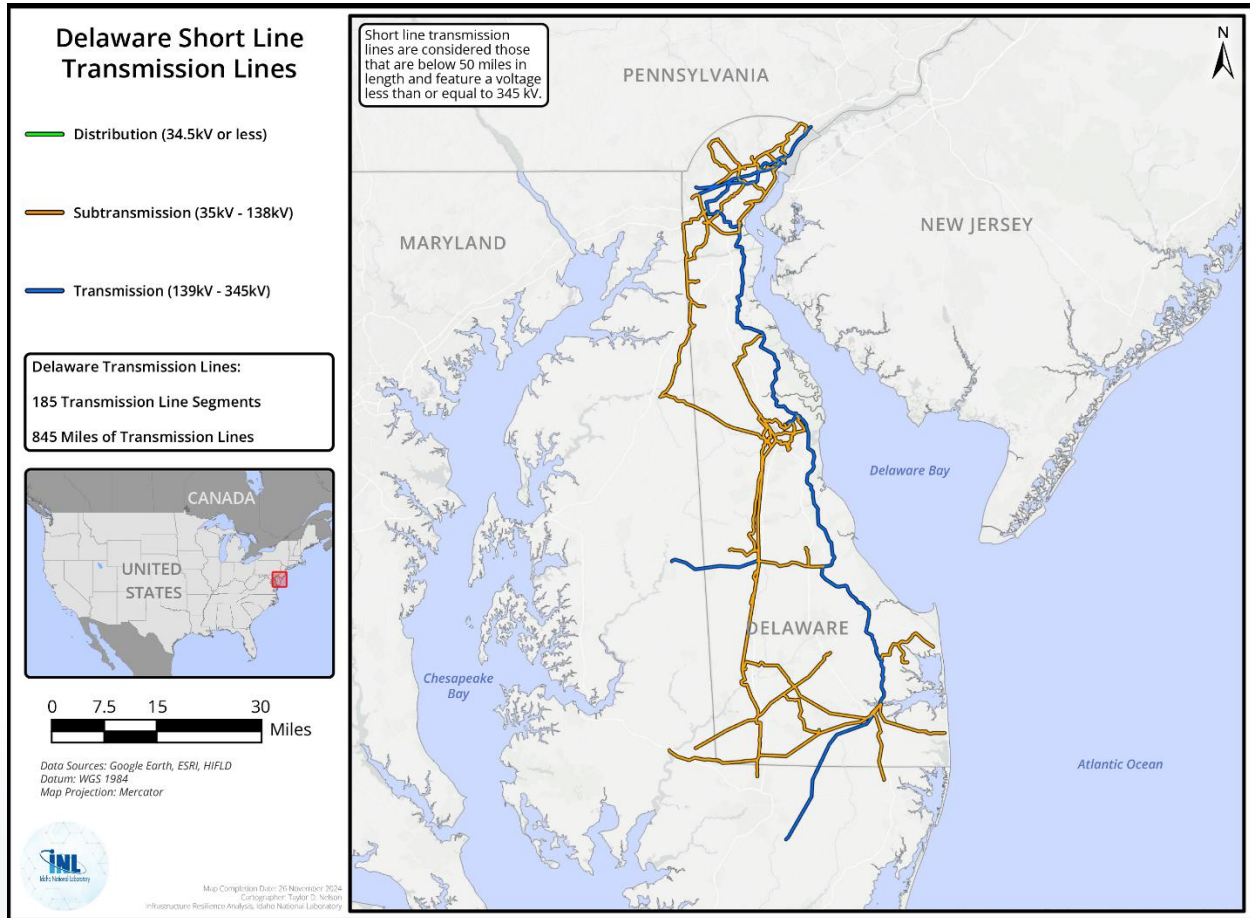


# CONNECTICUT



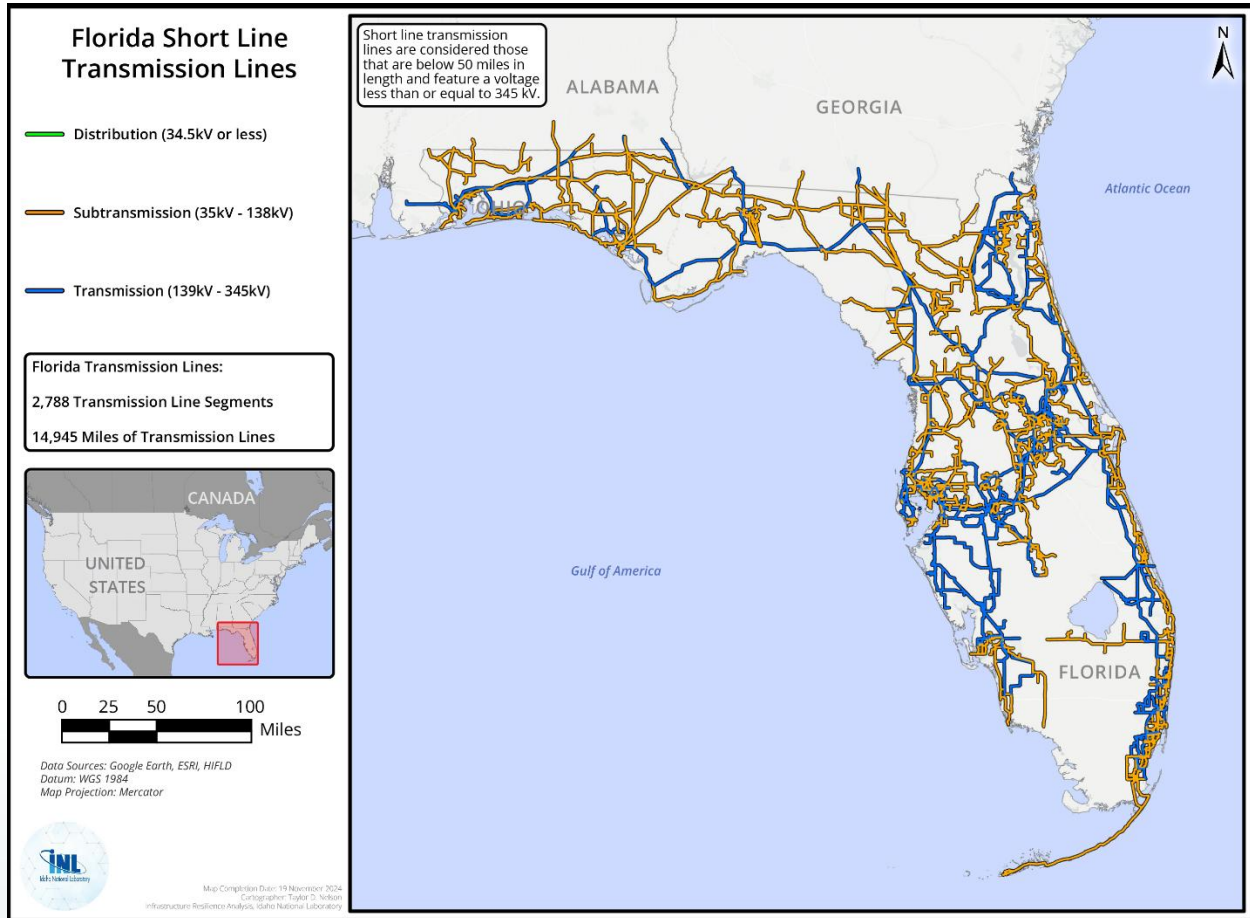


# DELAWARE



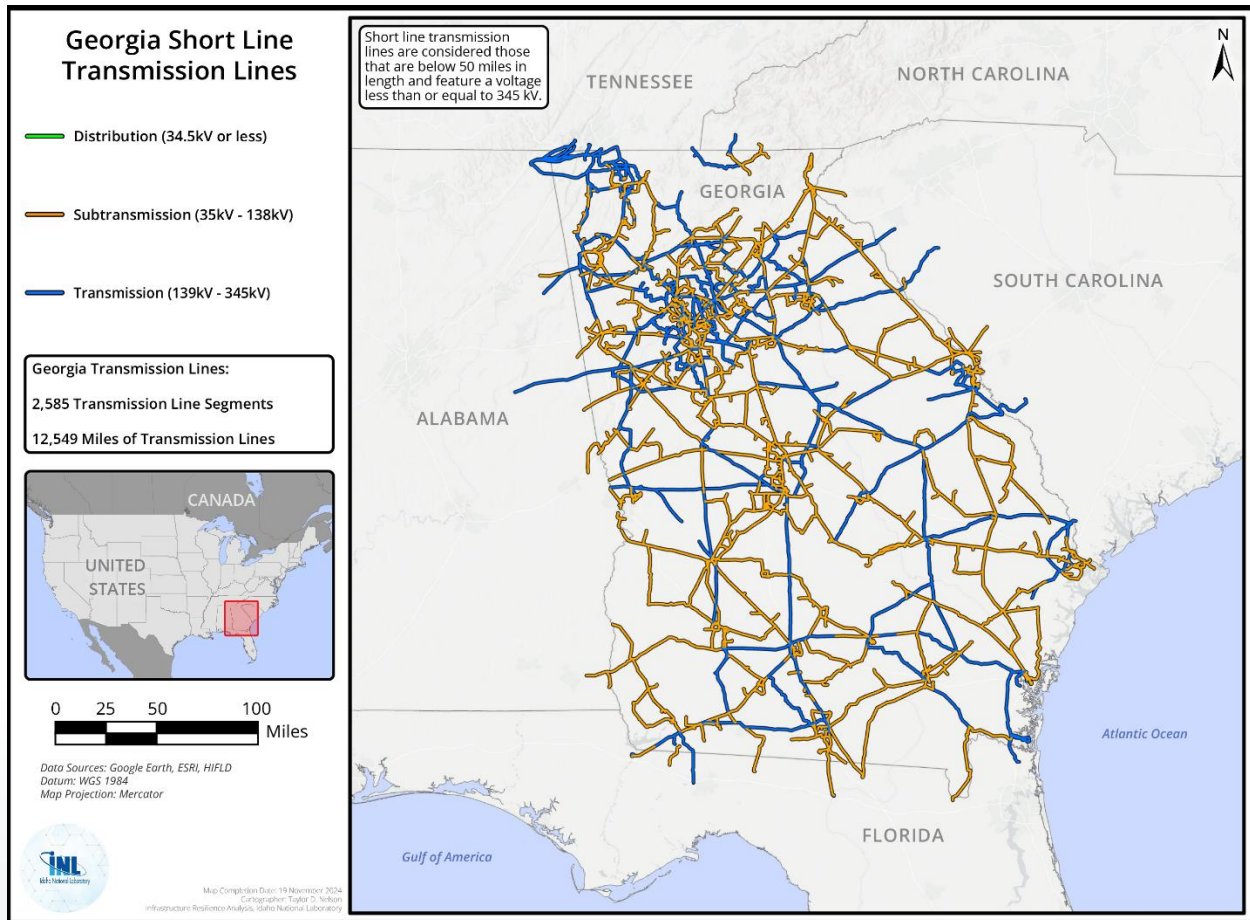


# FLORIDA



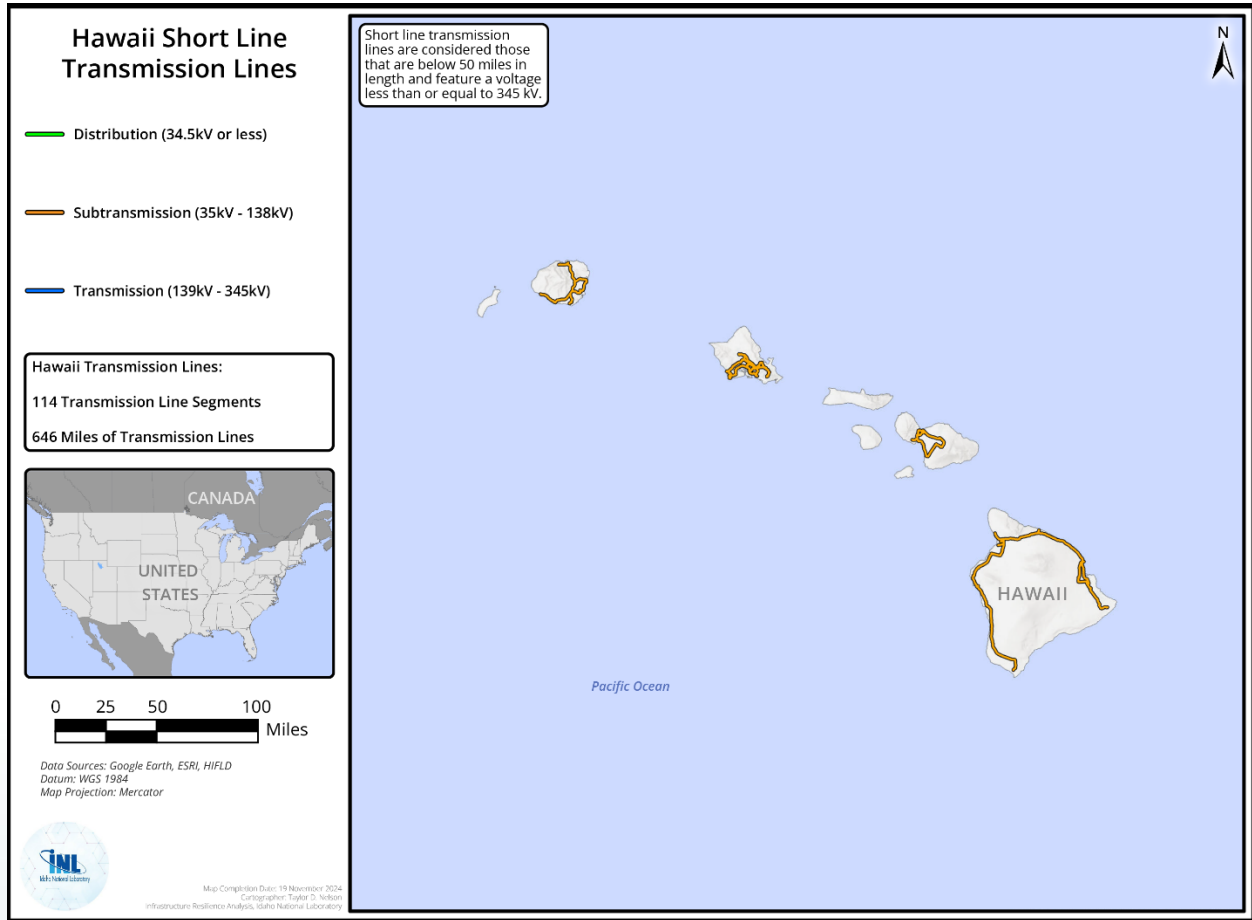


# GEORGIA



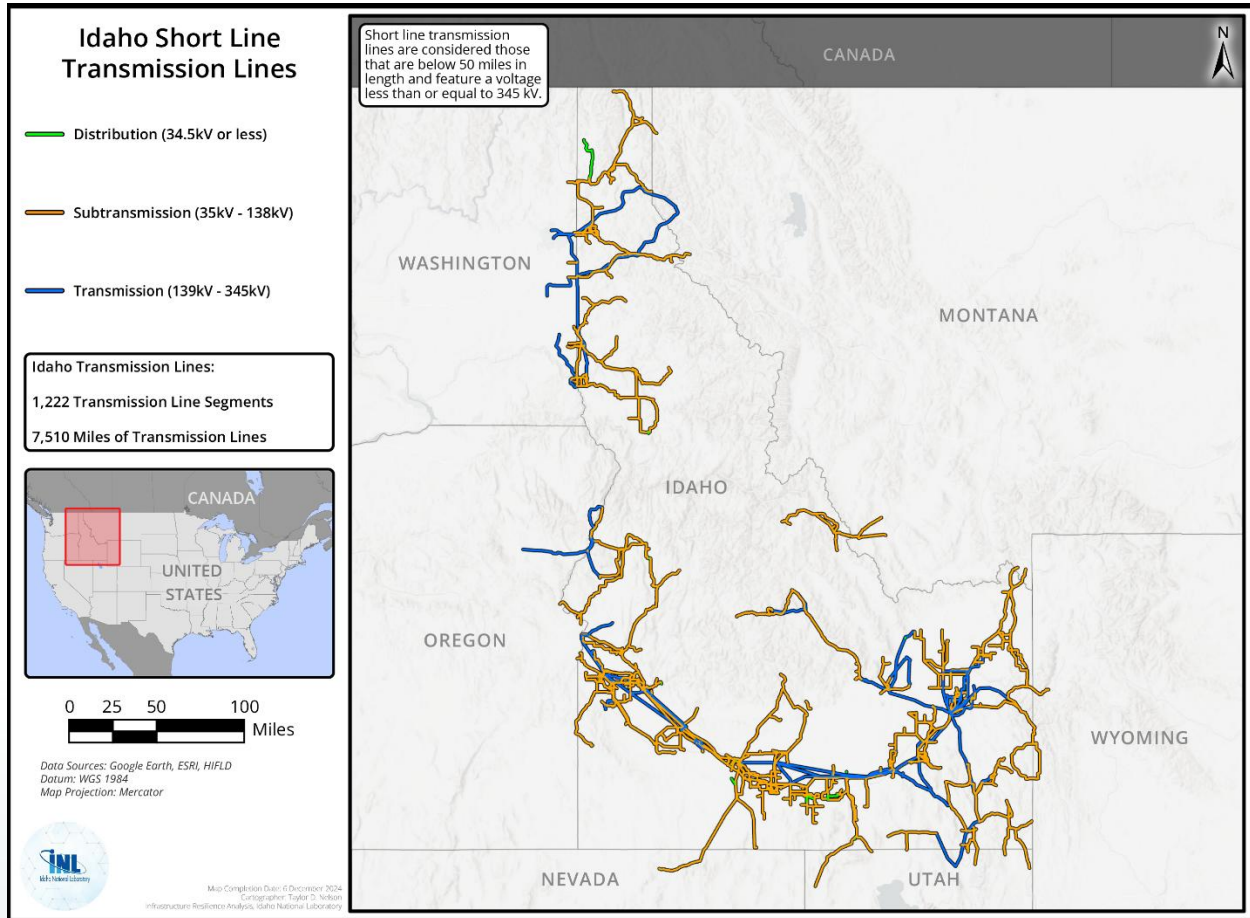


# HAWAII



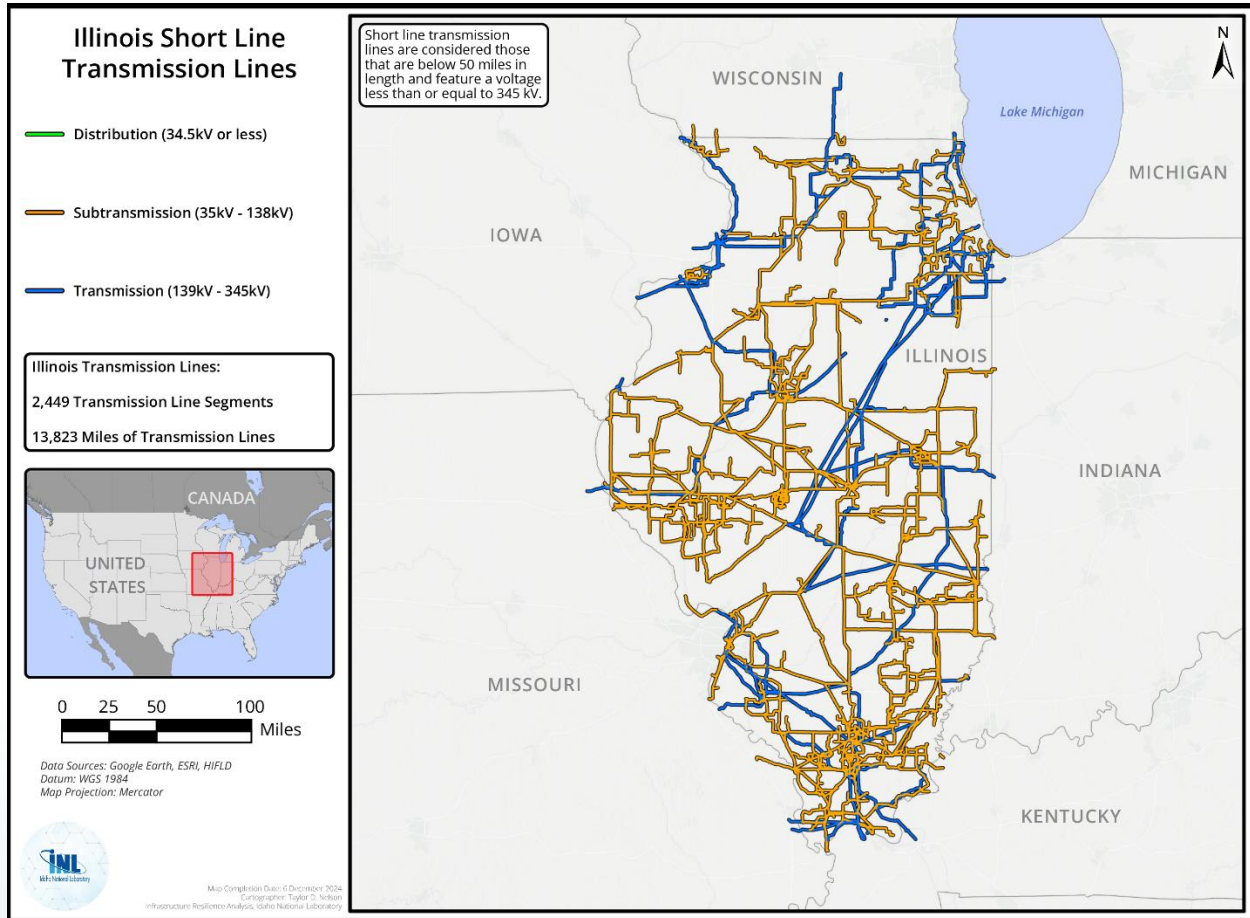


# IDAHO



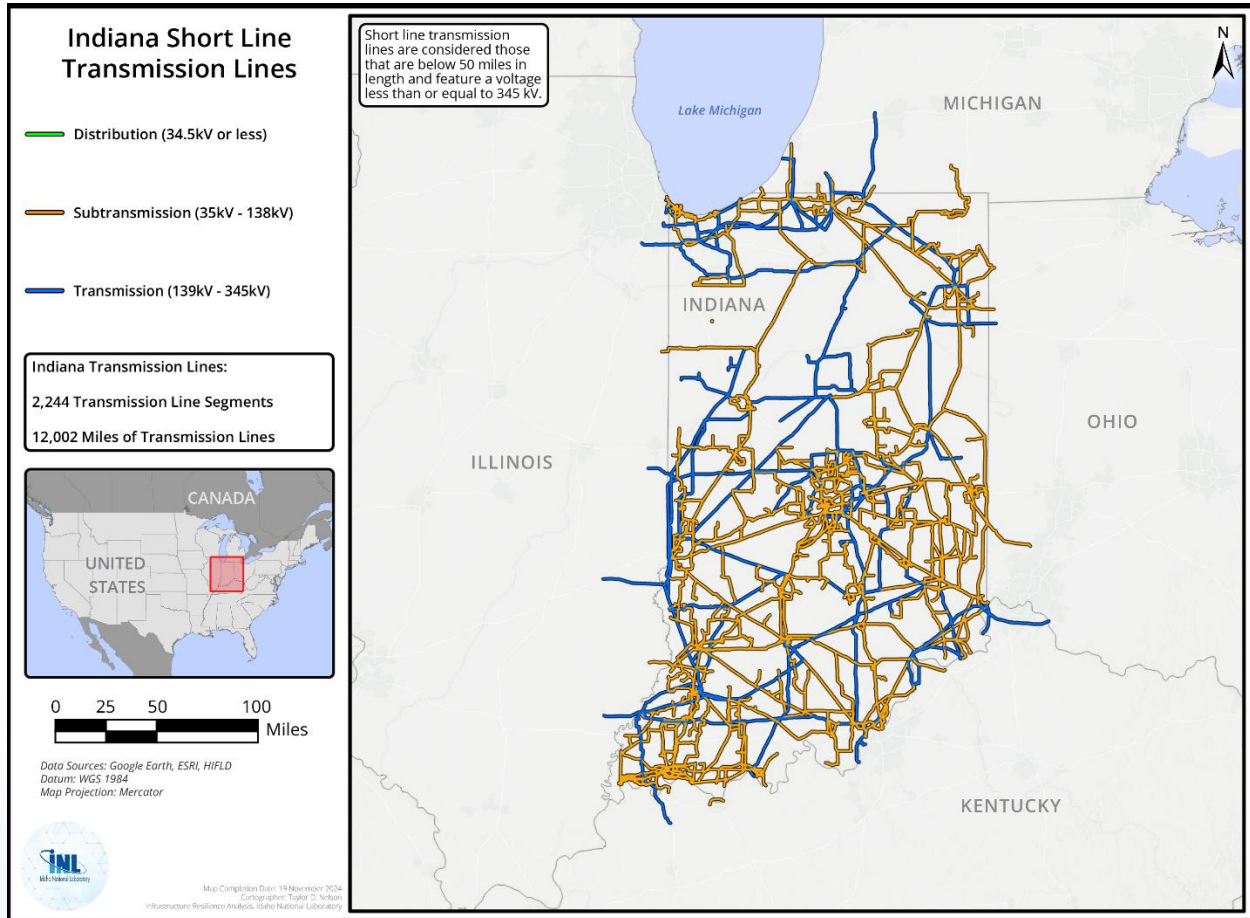


# ILLINOIS



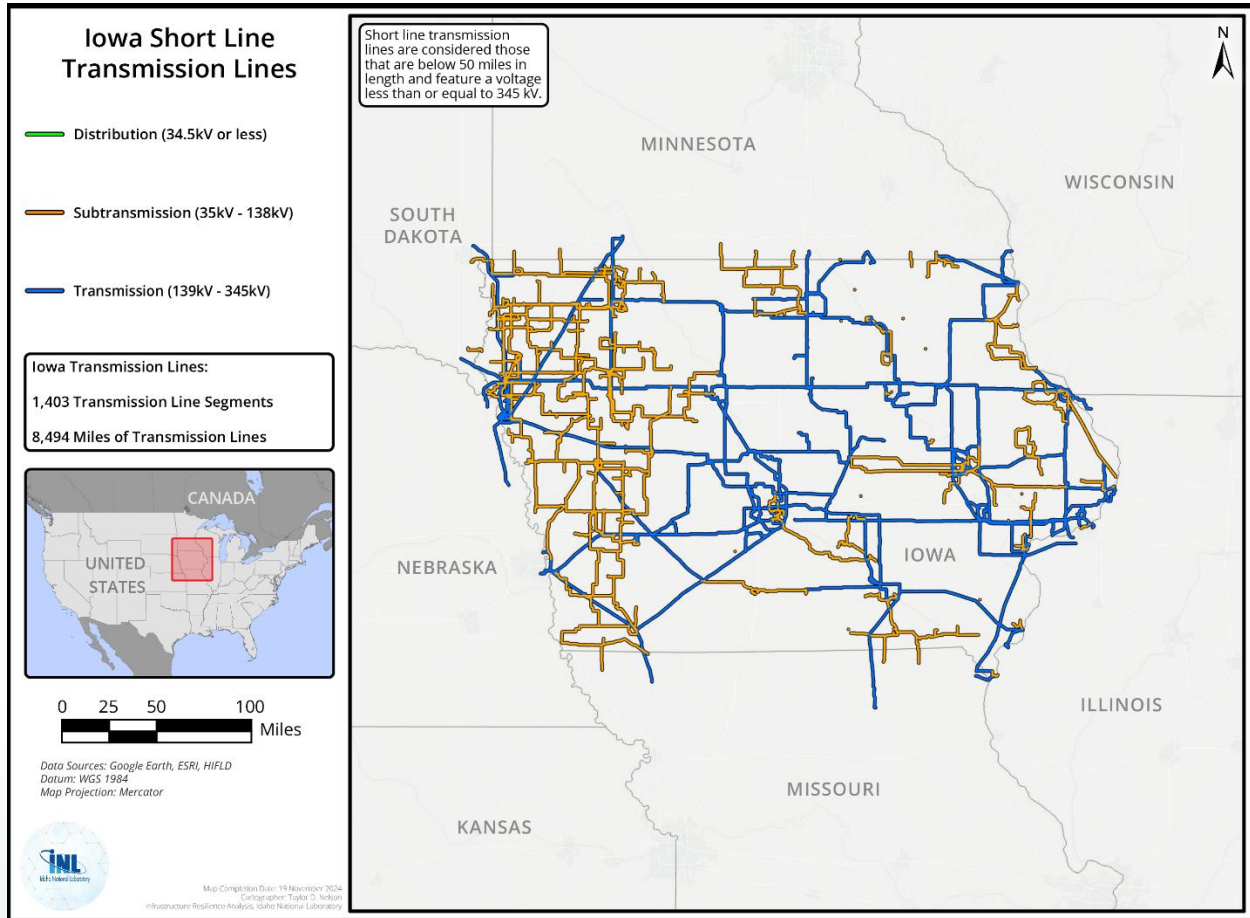


# INDIANA



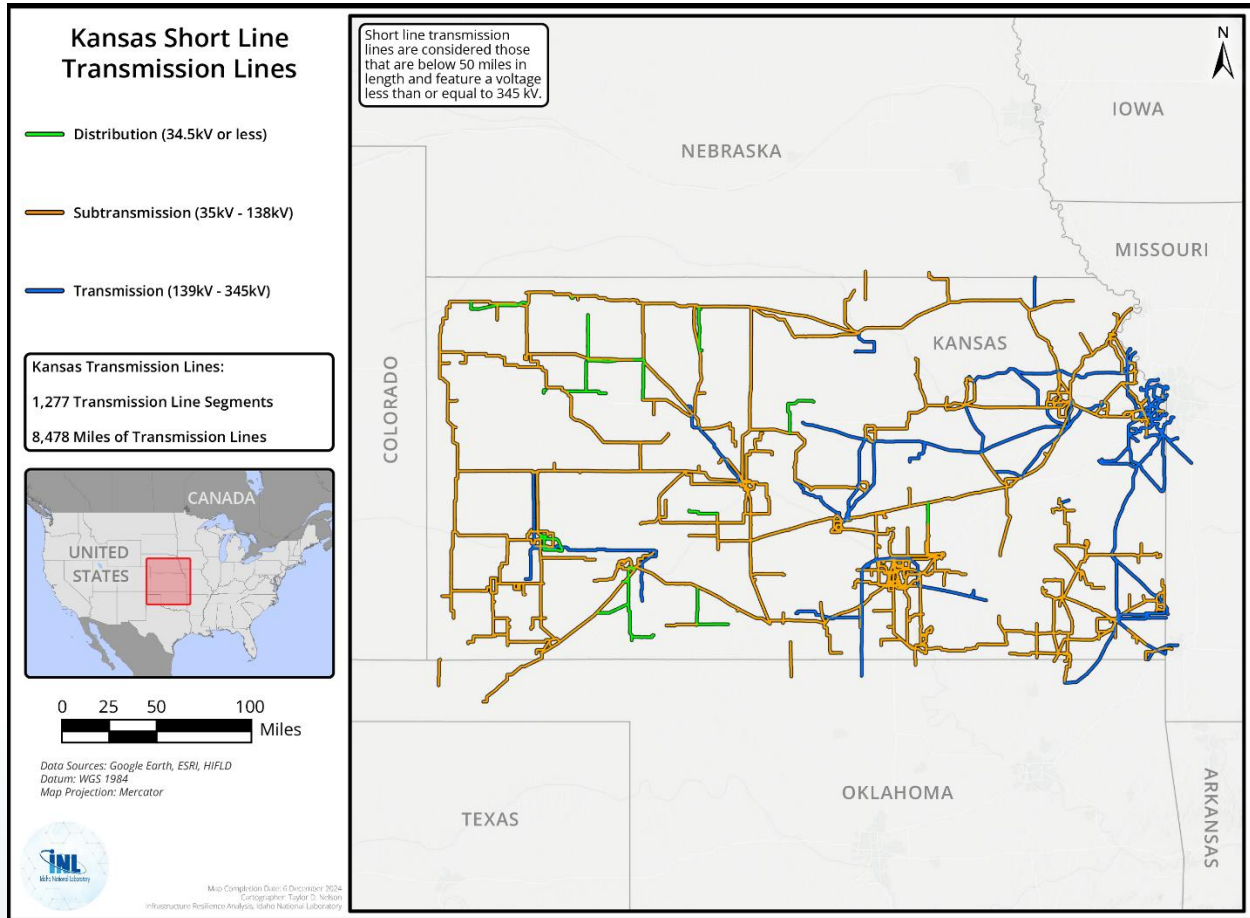


# IOWA



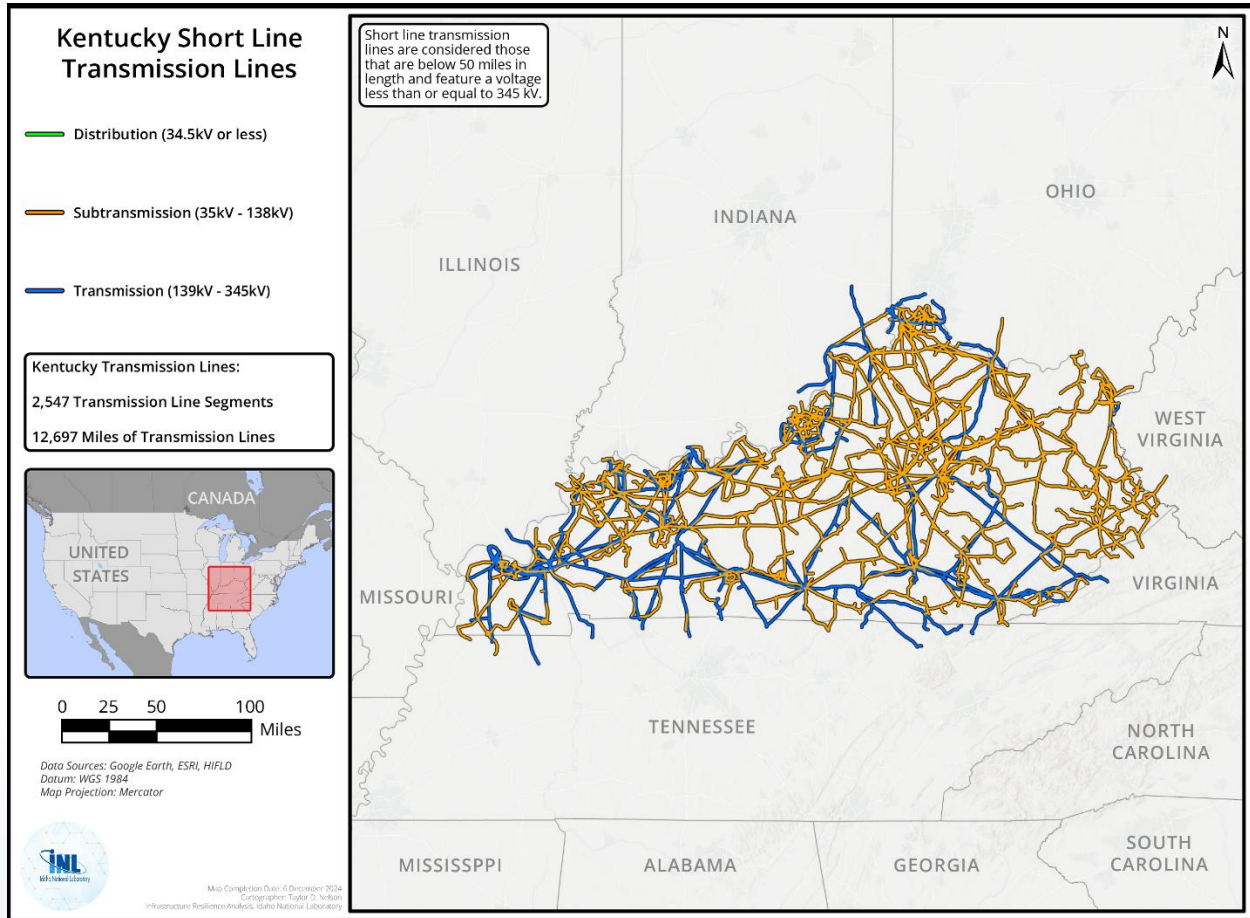


# KANSAS



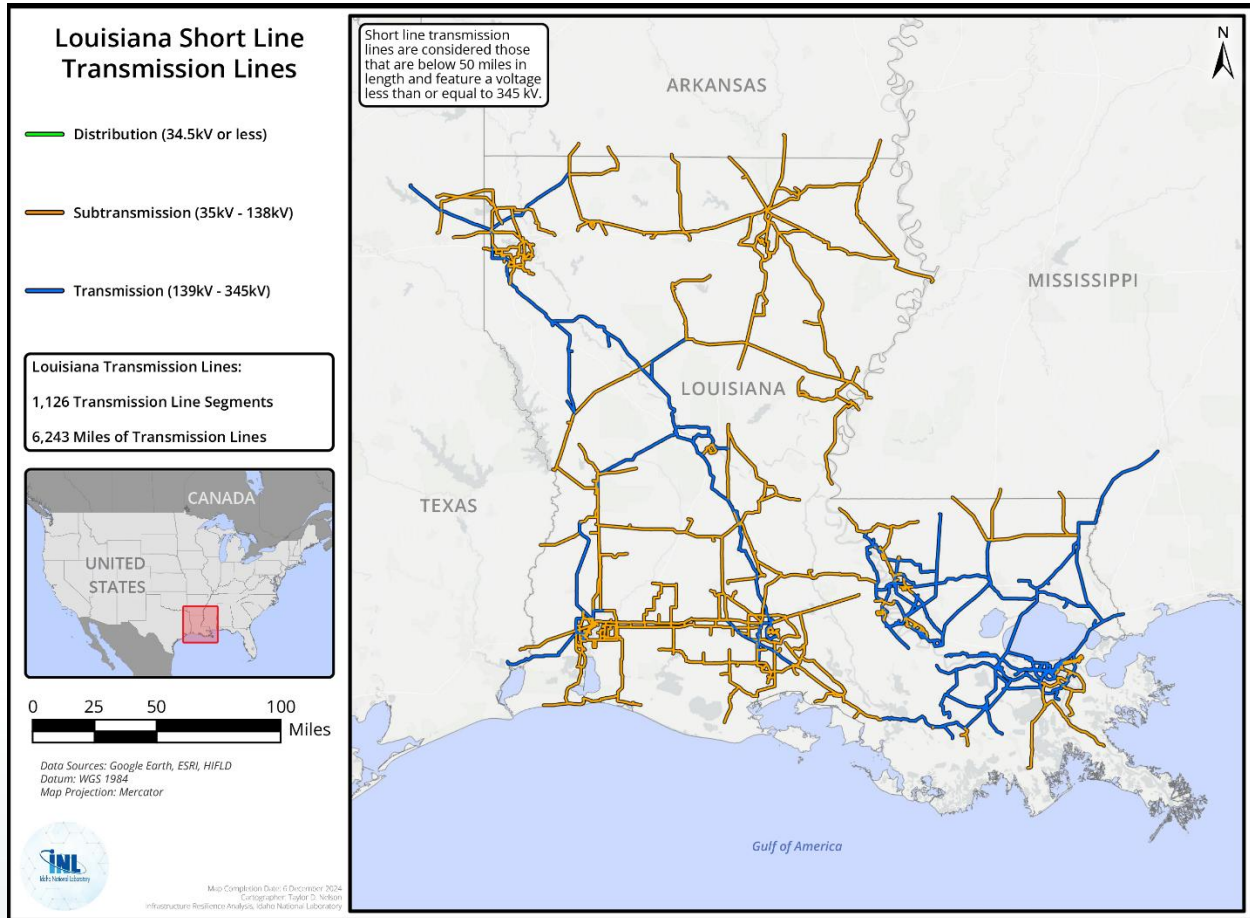


# KENTUCKY



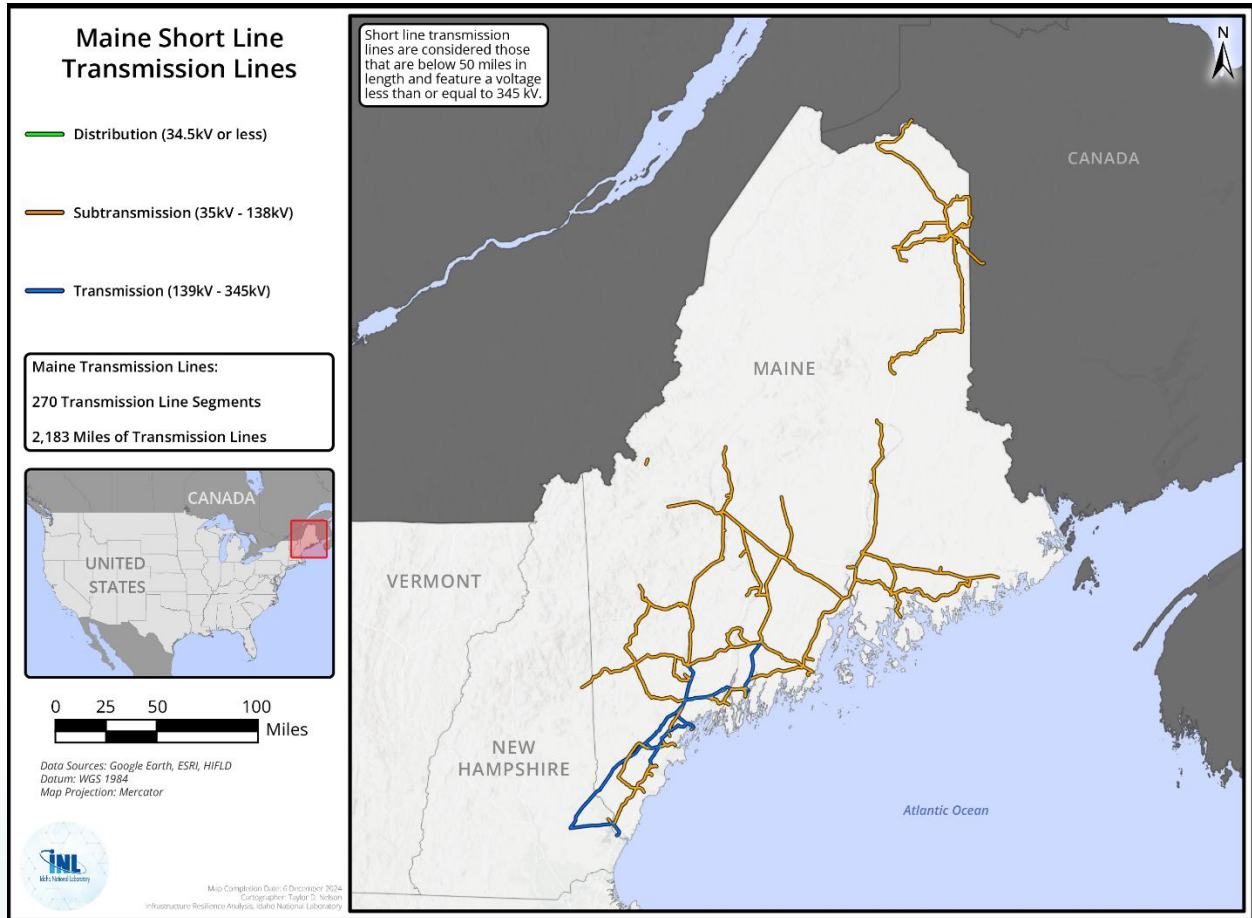


# LOUISIANA



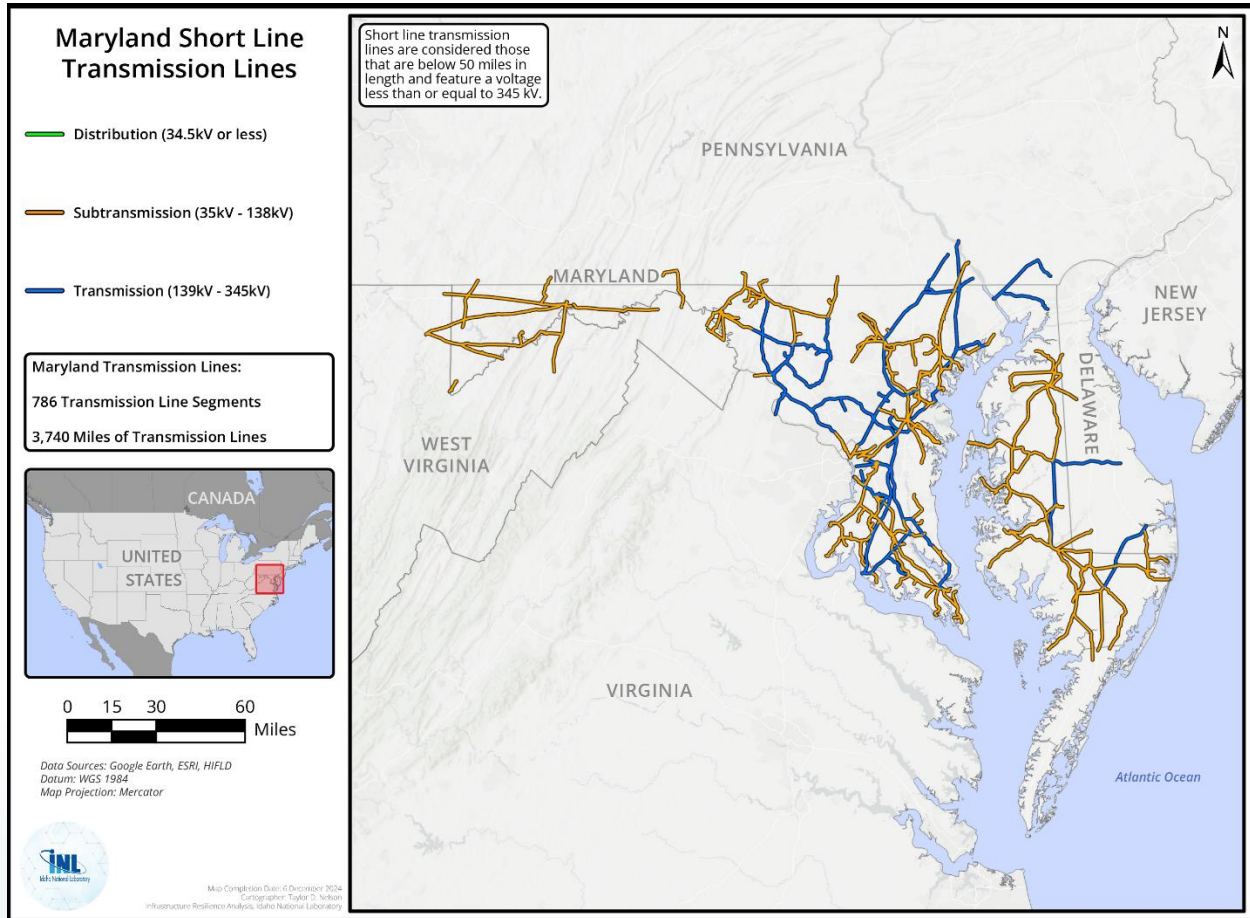


# MAINE



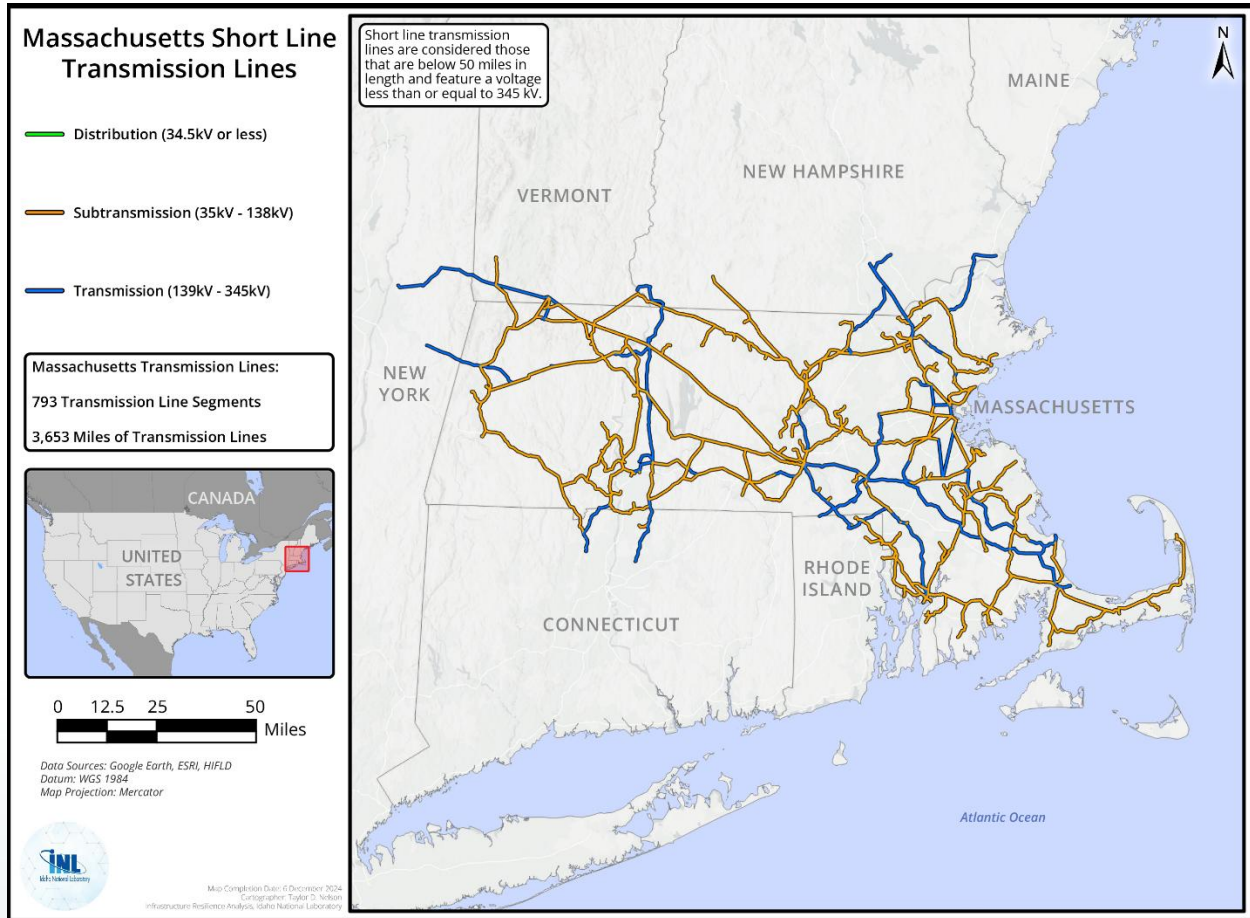


# MARYLAND



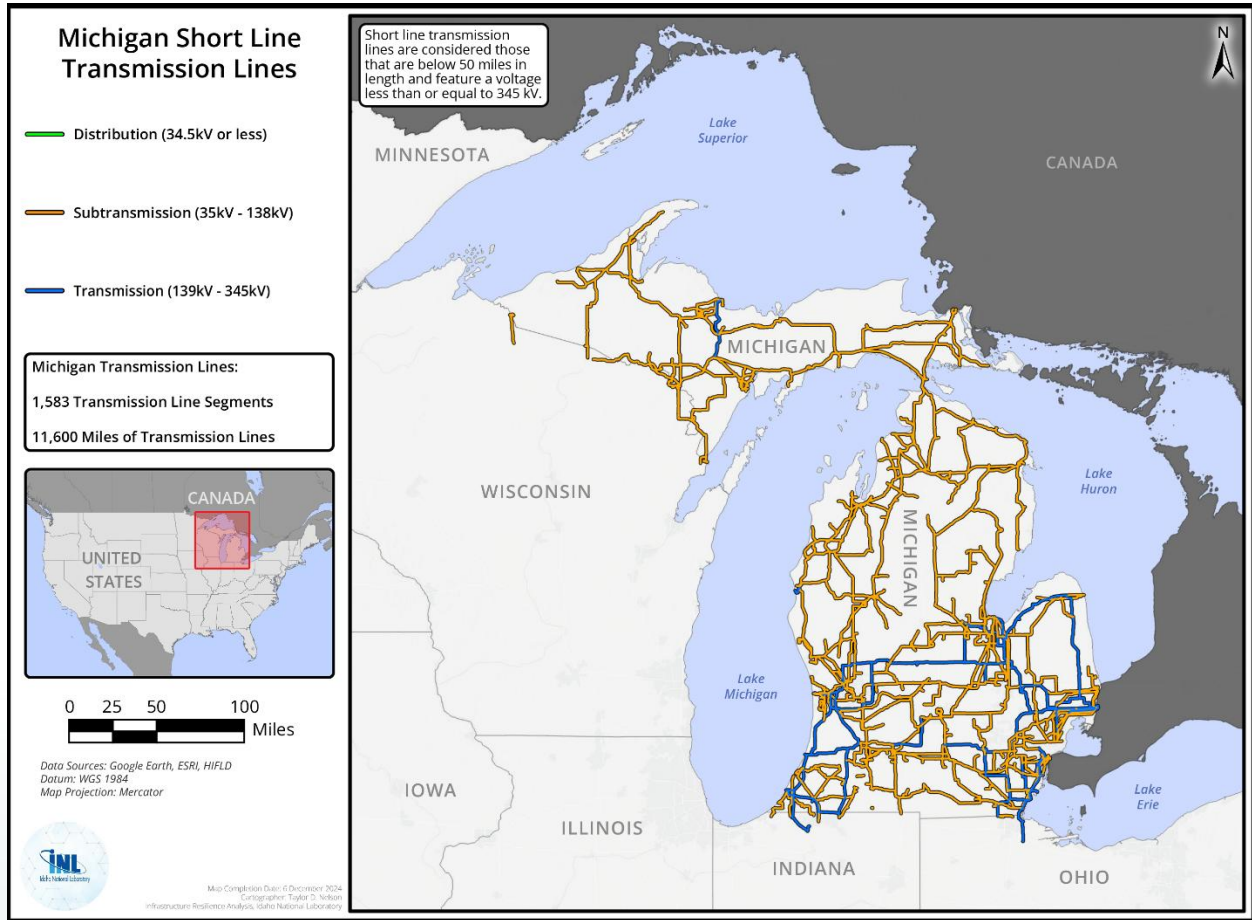


# MASSACHUSETTS



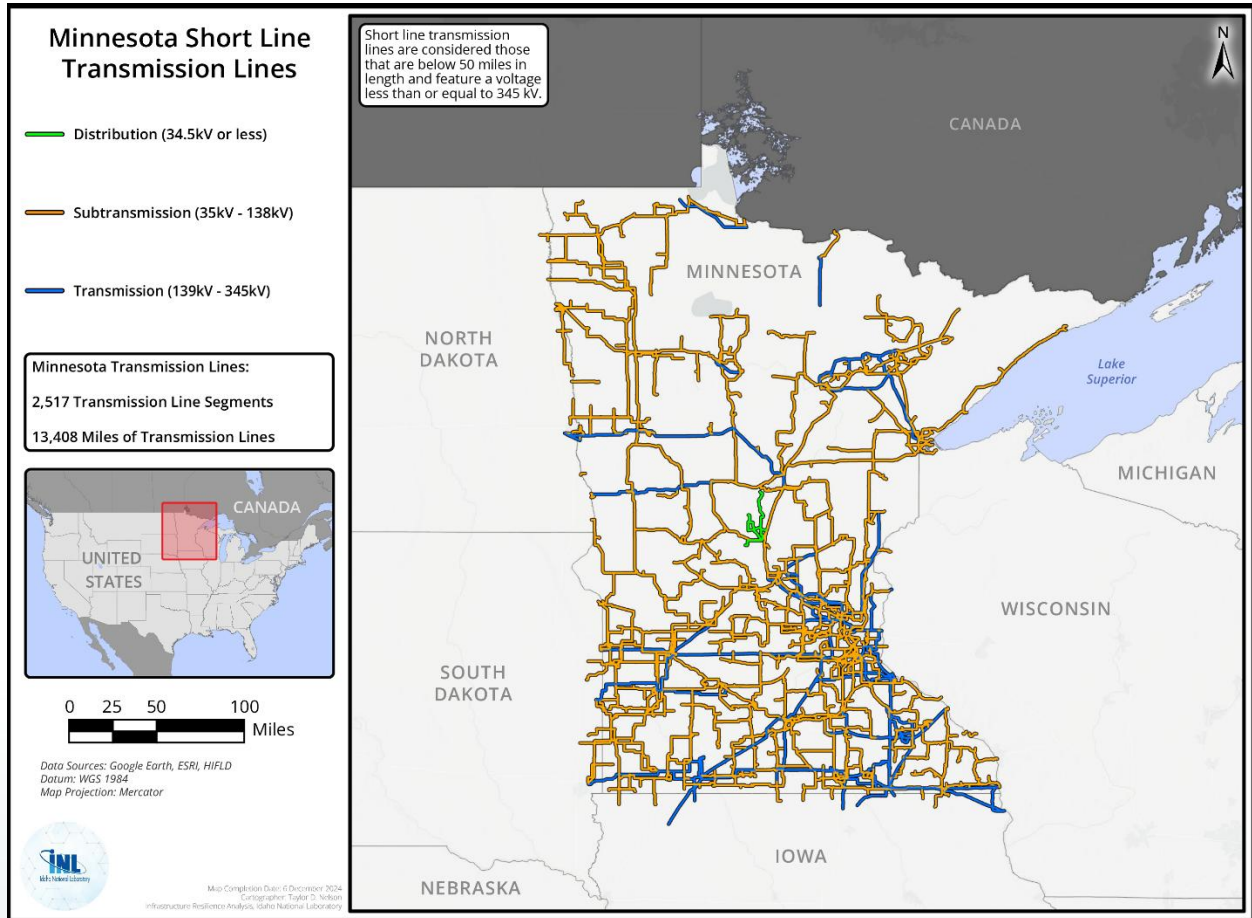


# MICHIGAN



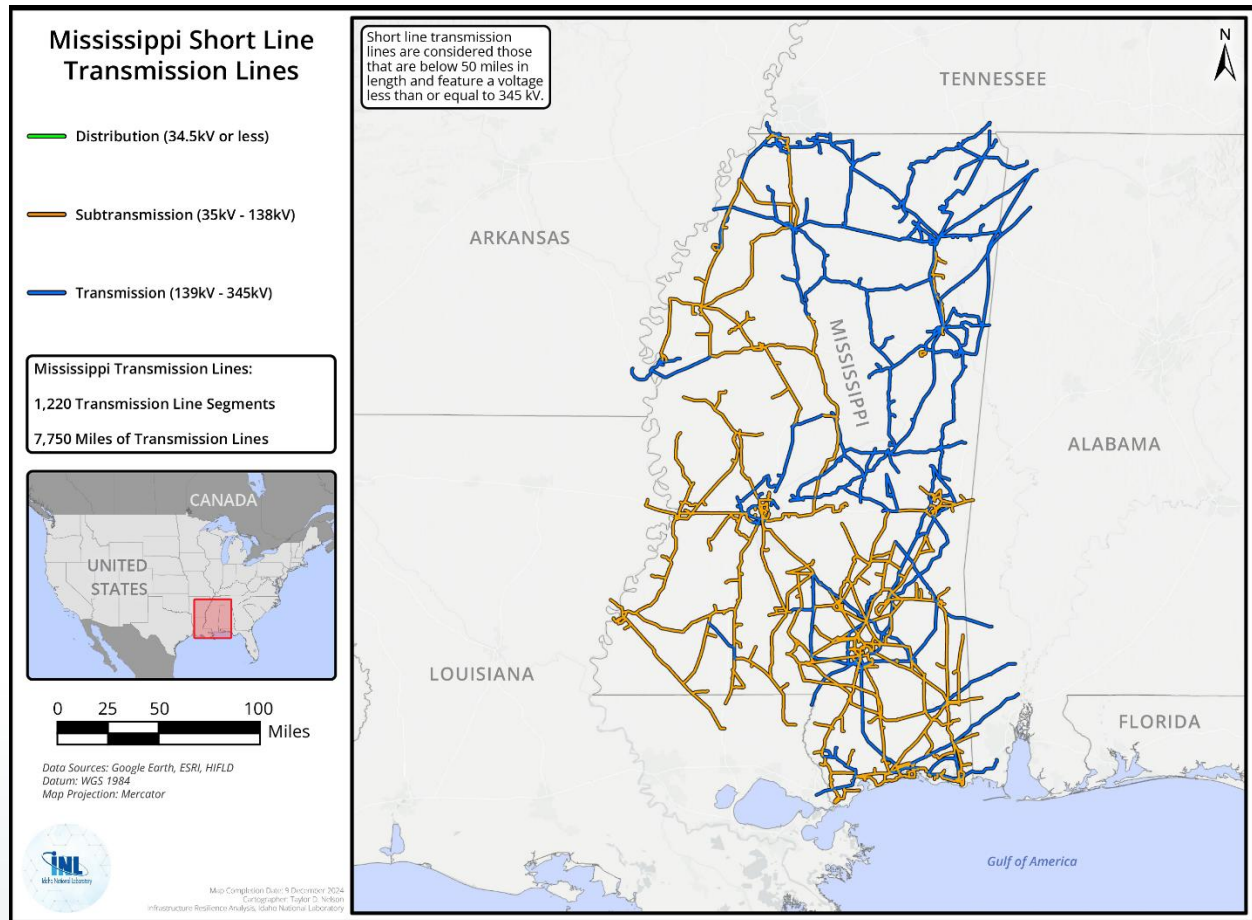


# MINNESOTA



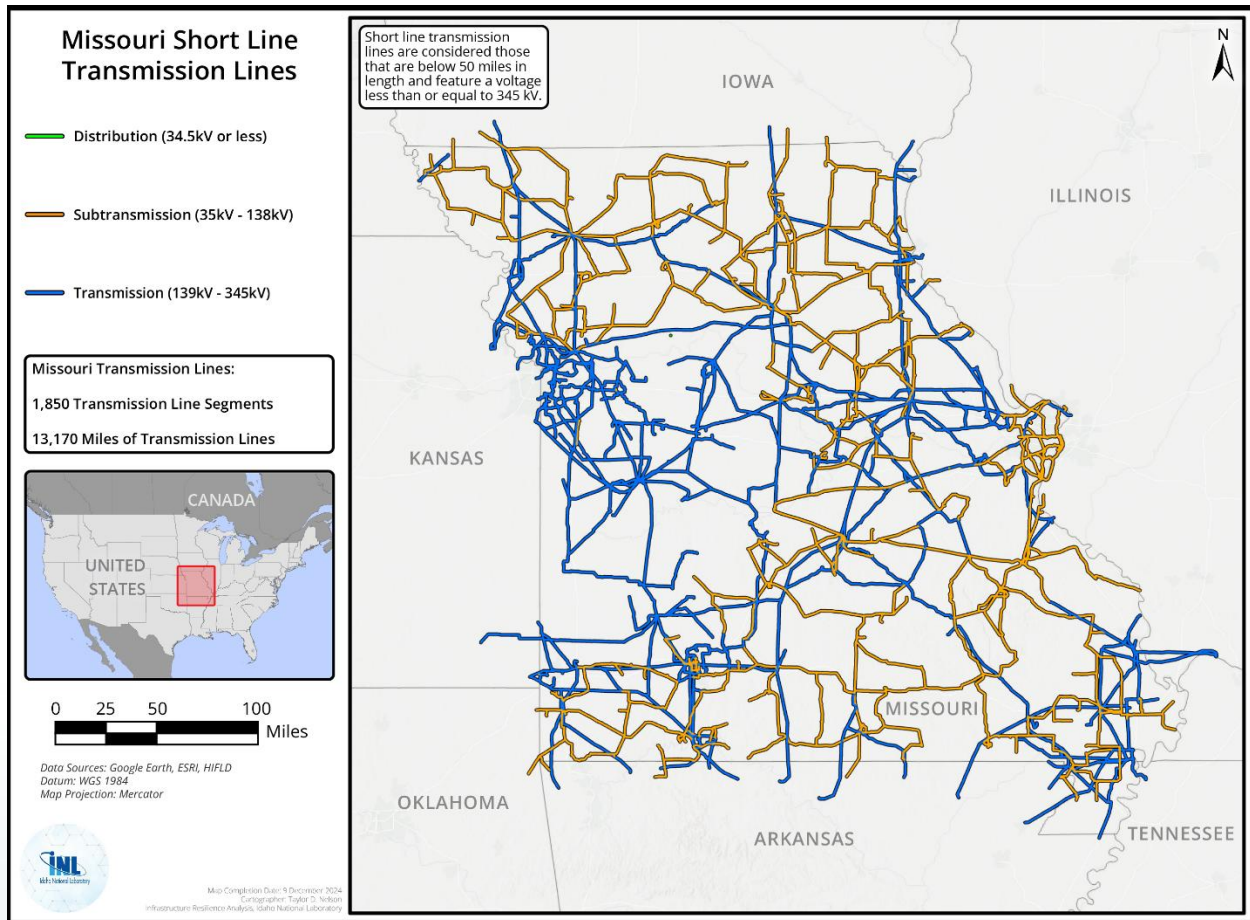


# MISSISSIPPI



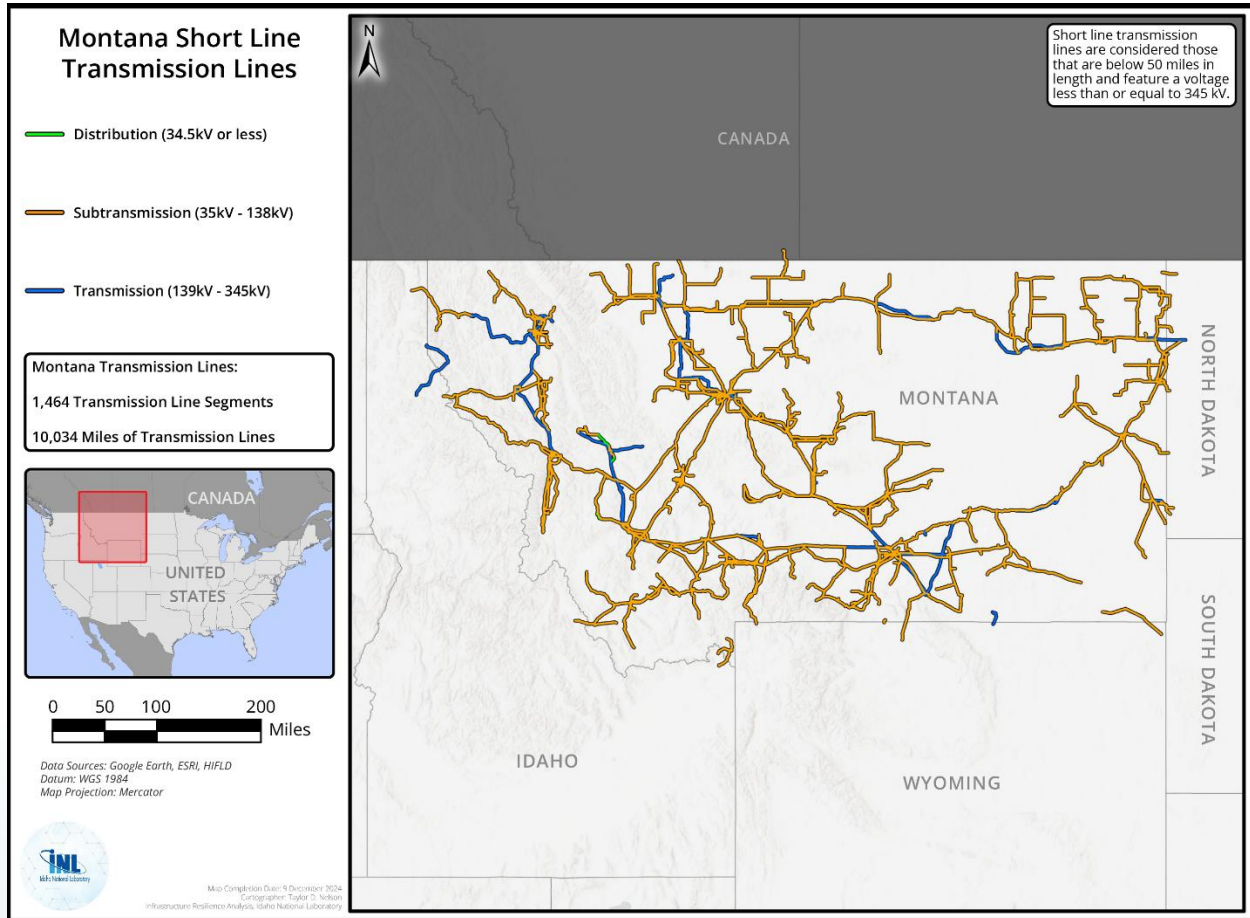


# MISSOURI



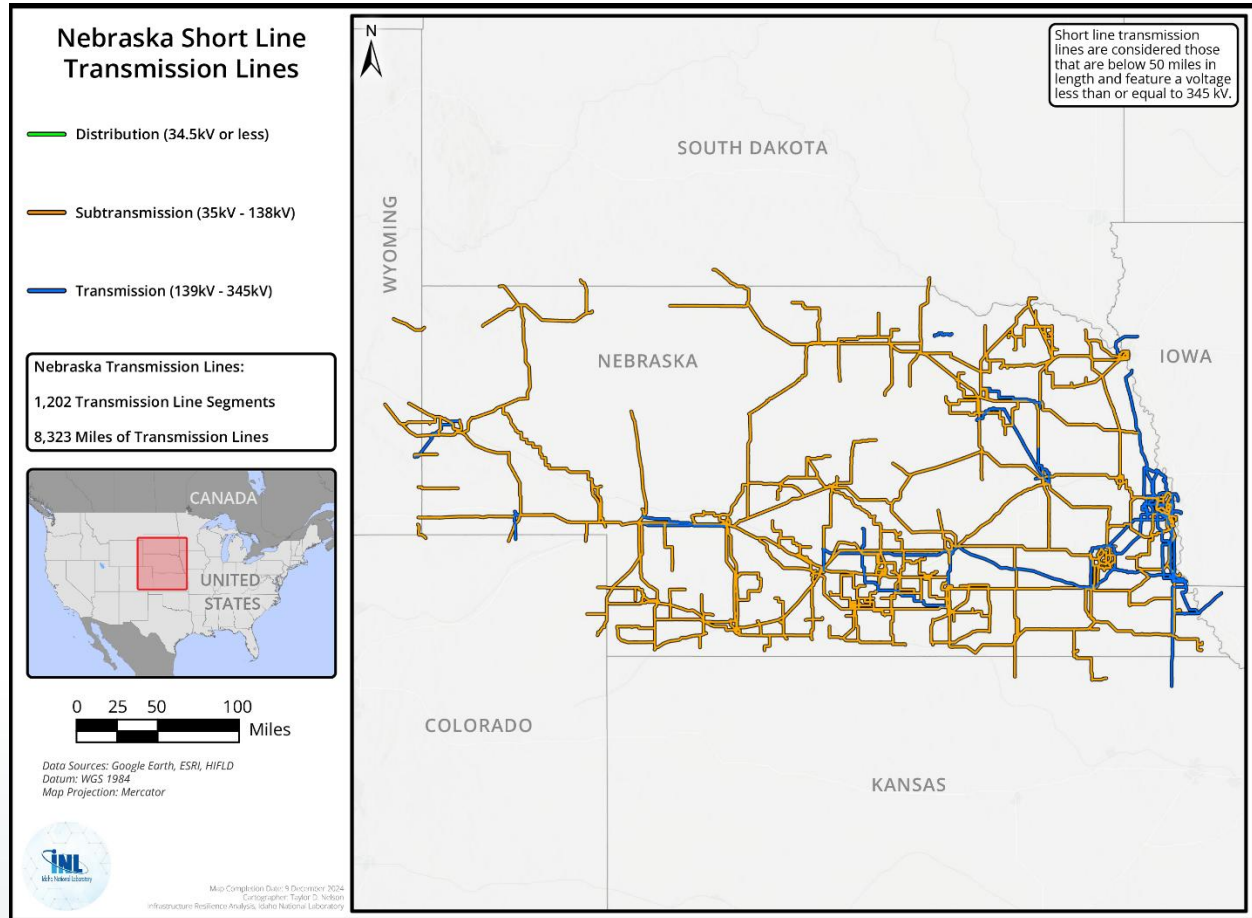


# MONTANA



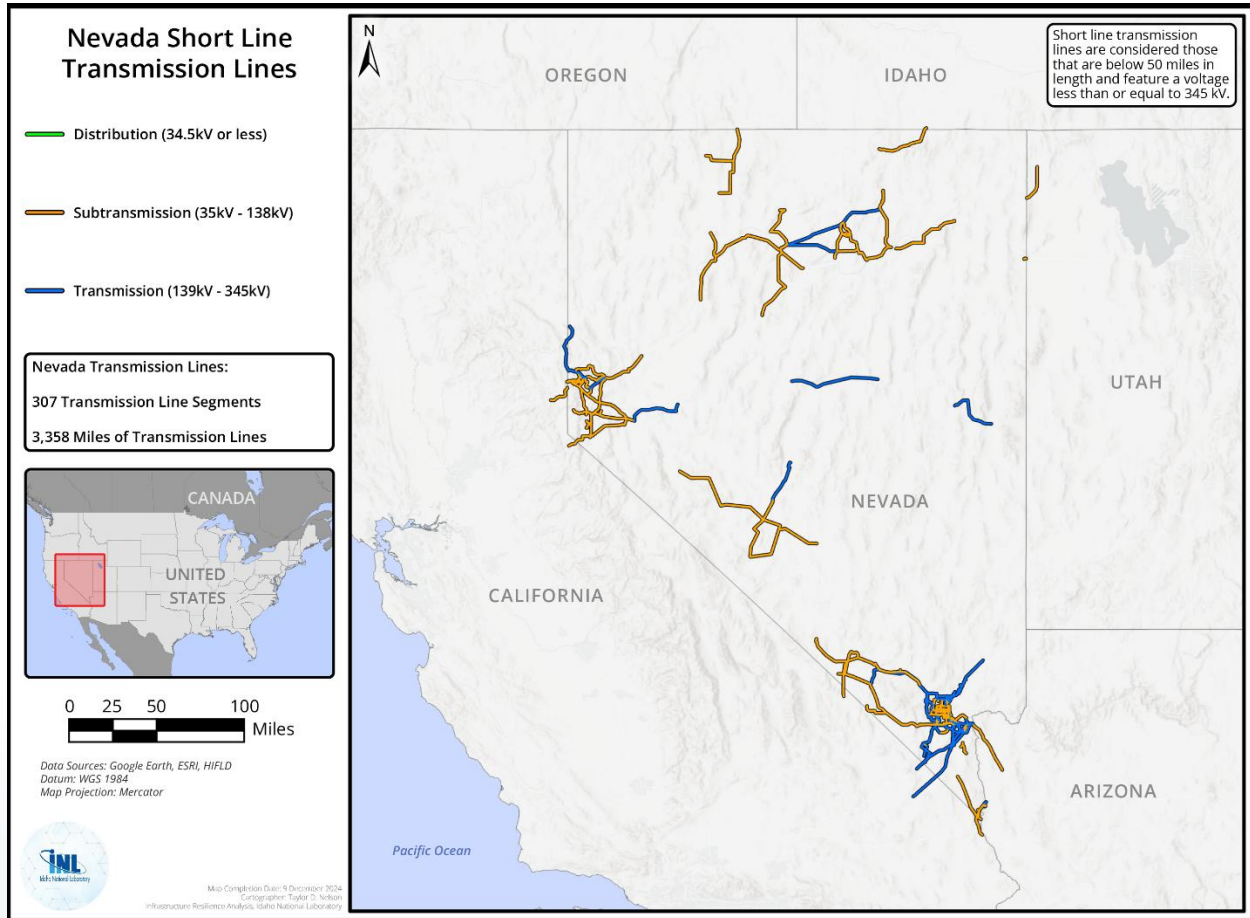


# NEBRASKA



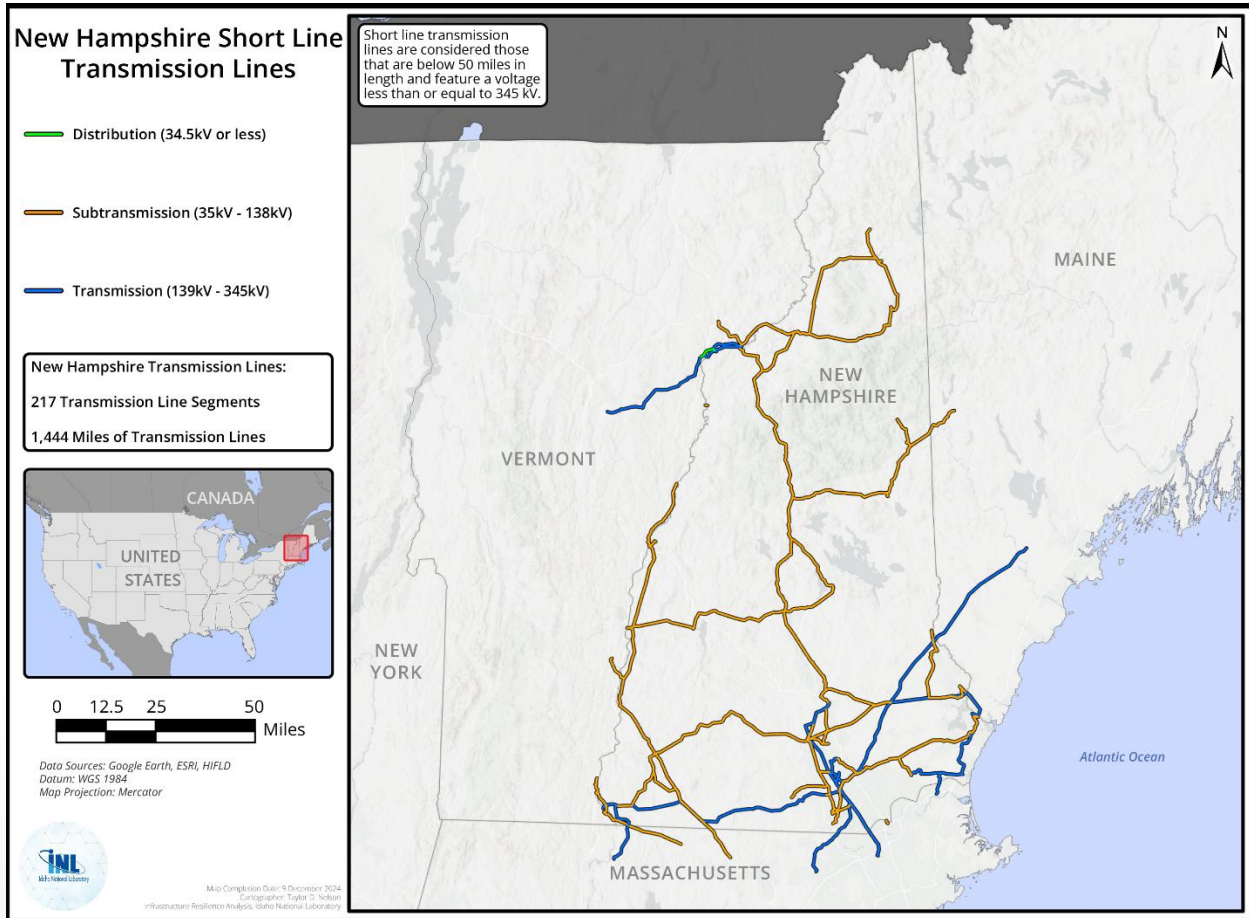


# NEVADA



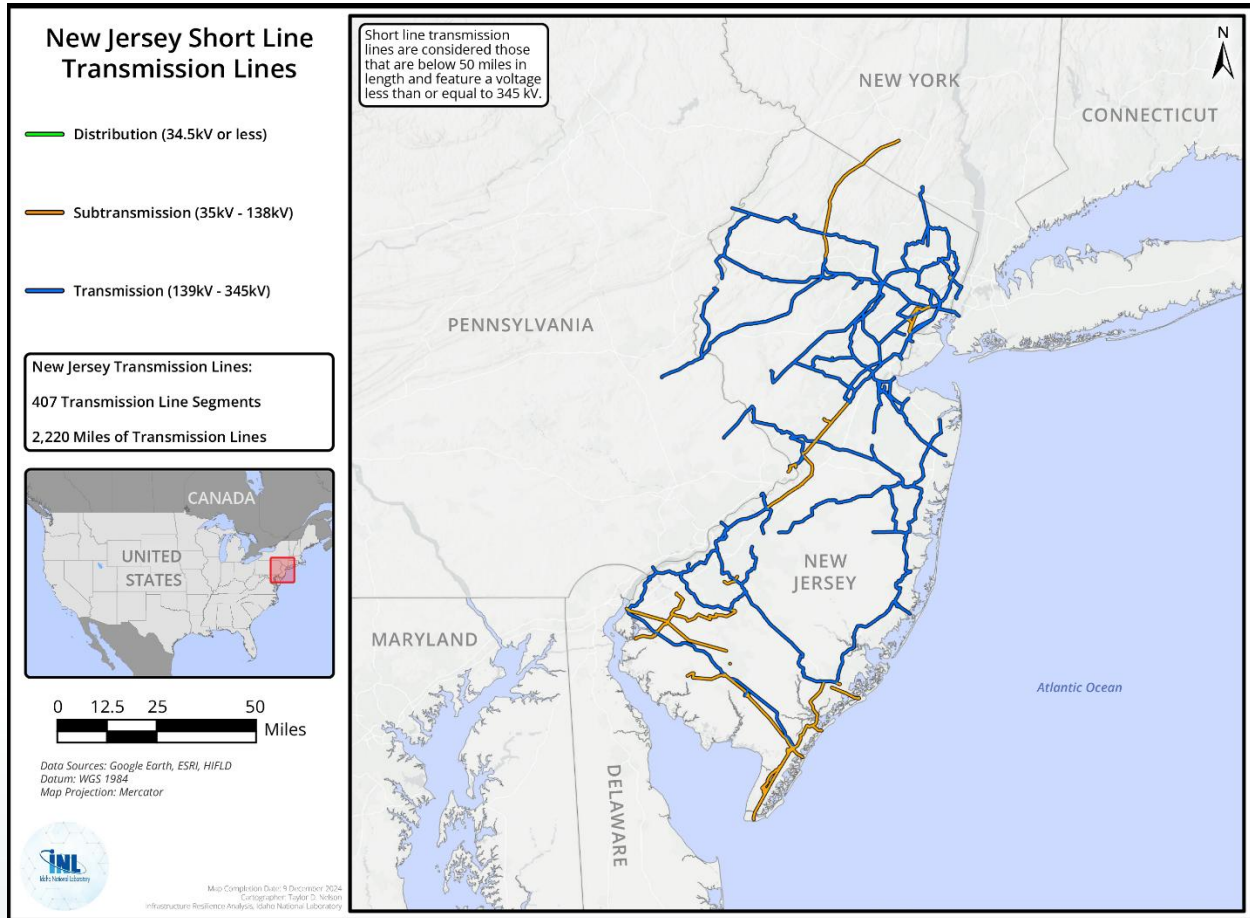


# NEW HAMPSHIRE



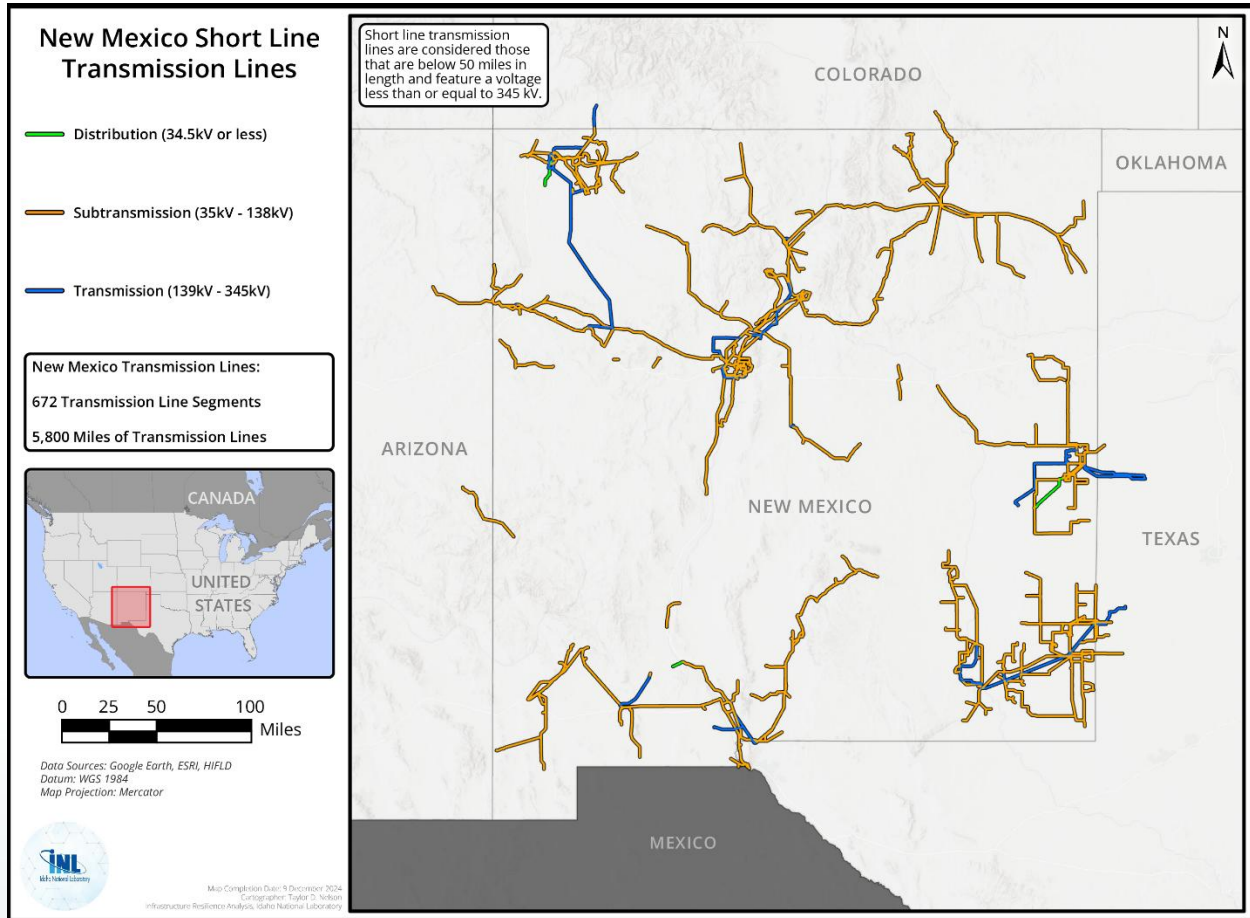


# NEW JERSEY



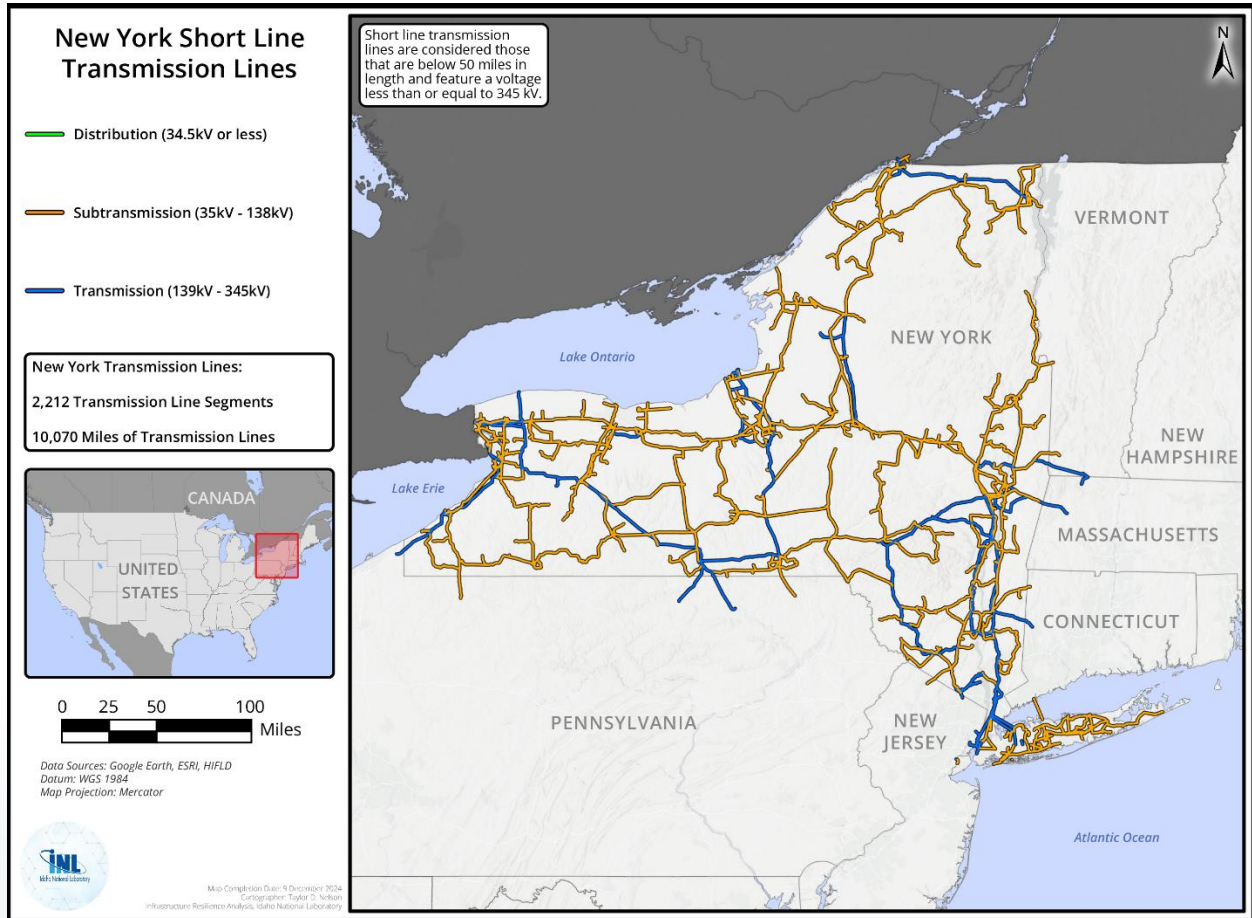


# NEW MEXICO



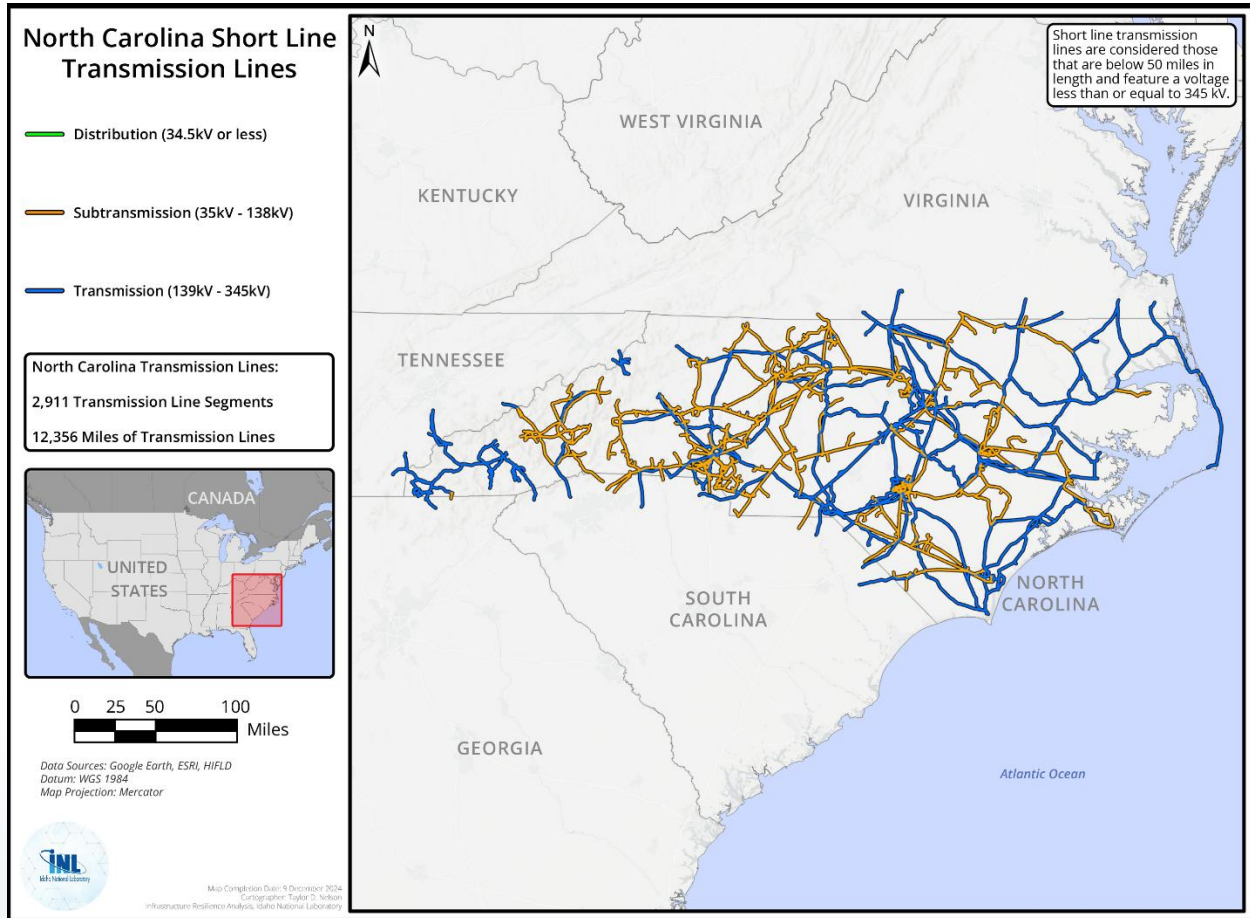


# NEW YORK



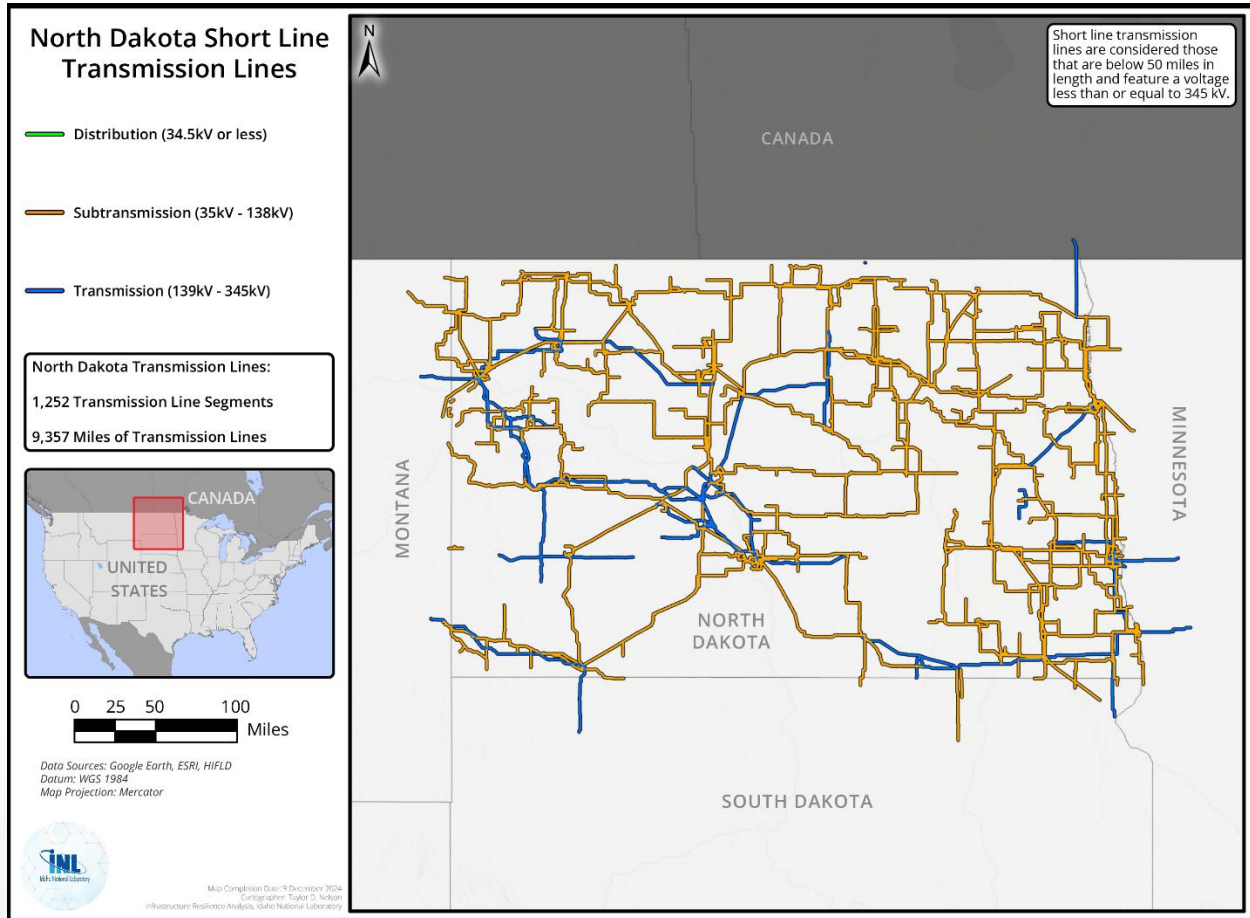


# NORTH CAROLINA



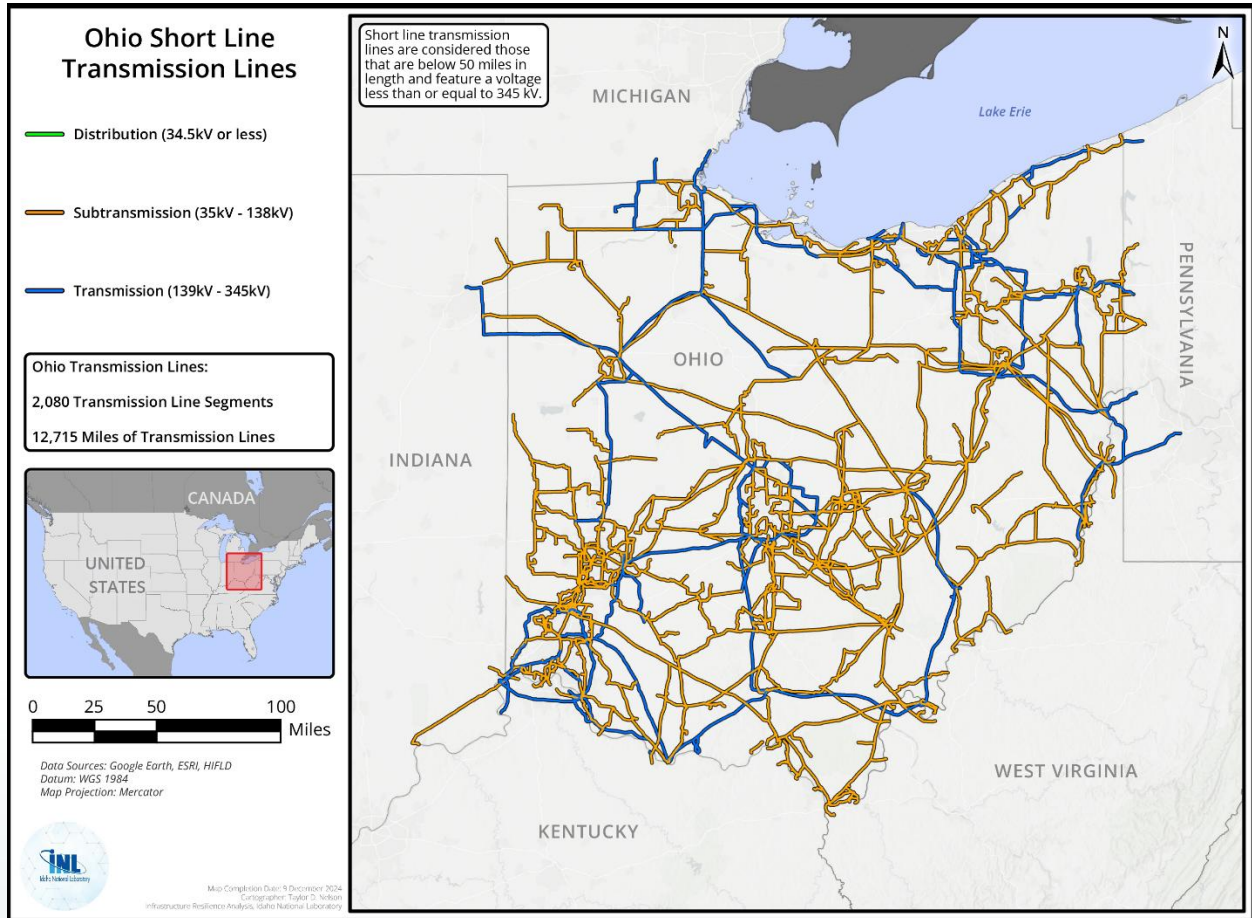


# NORTH DAKOTA



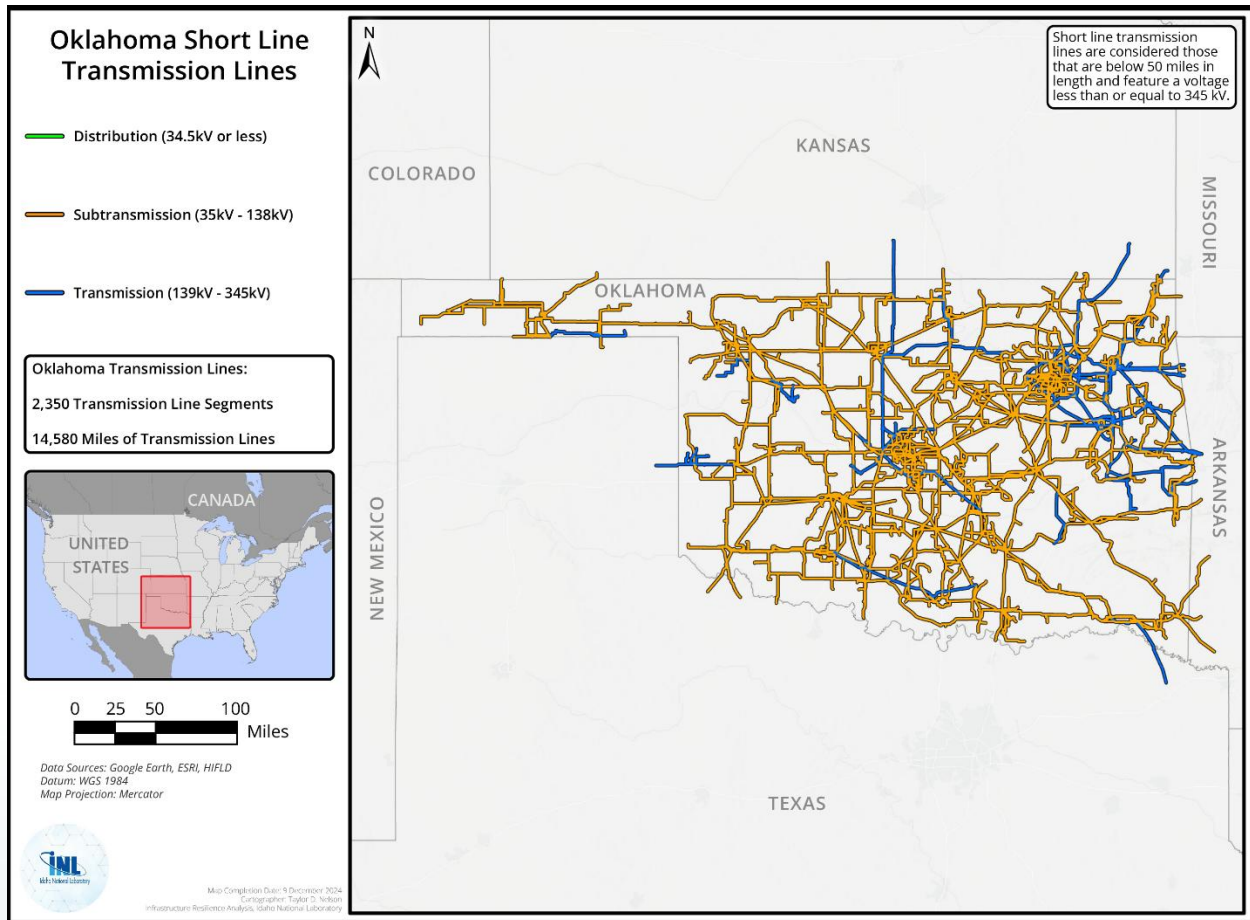


# OHIO



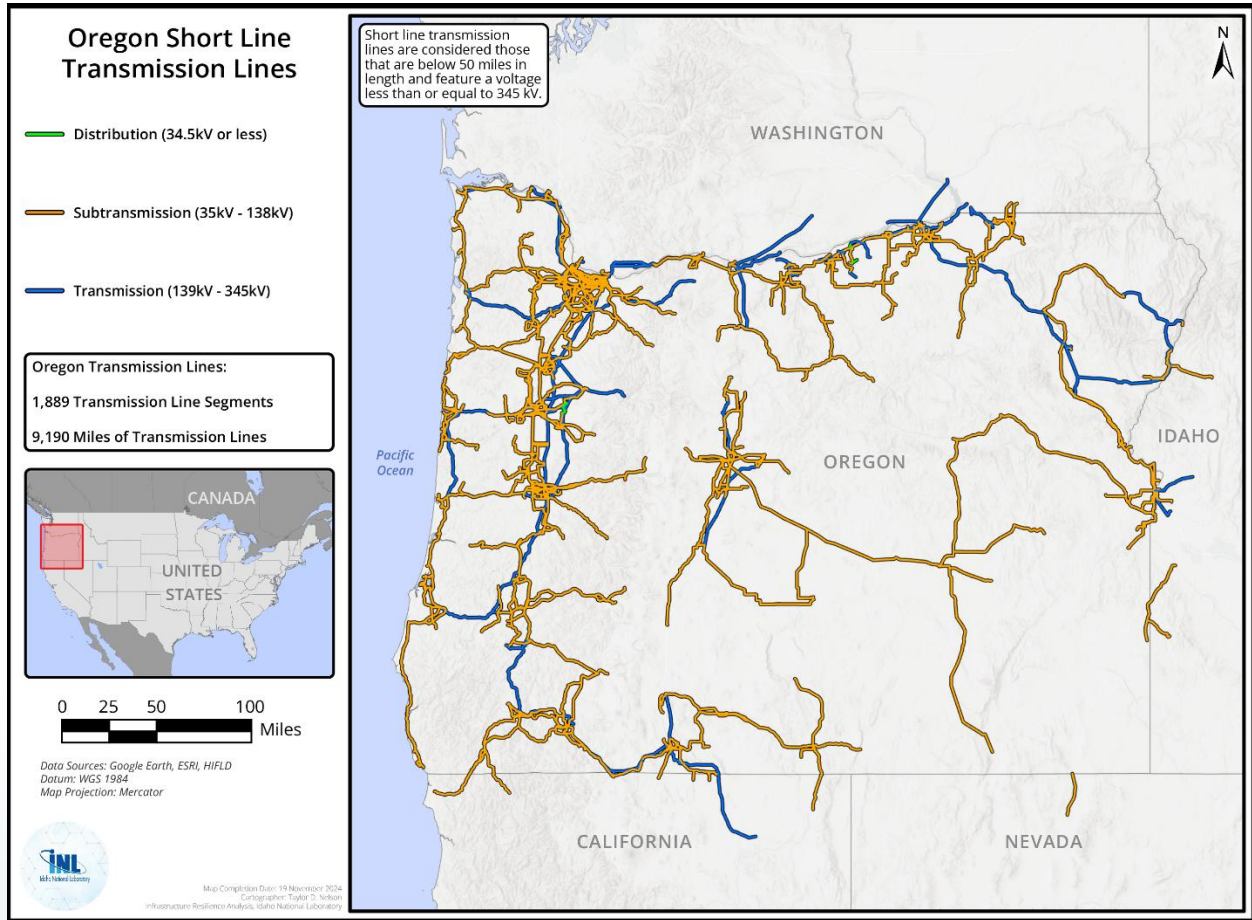


# OKLAHOMA



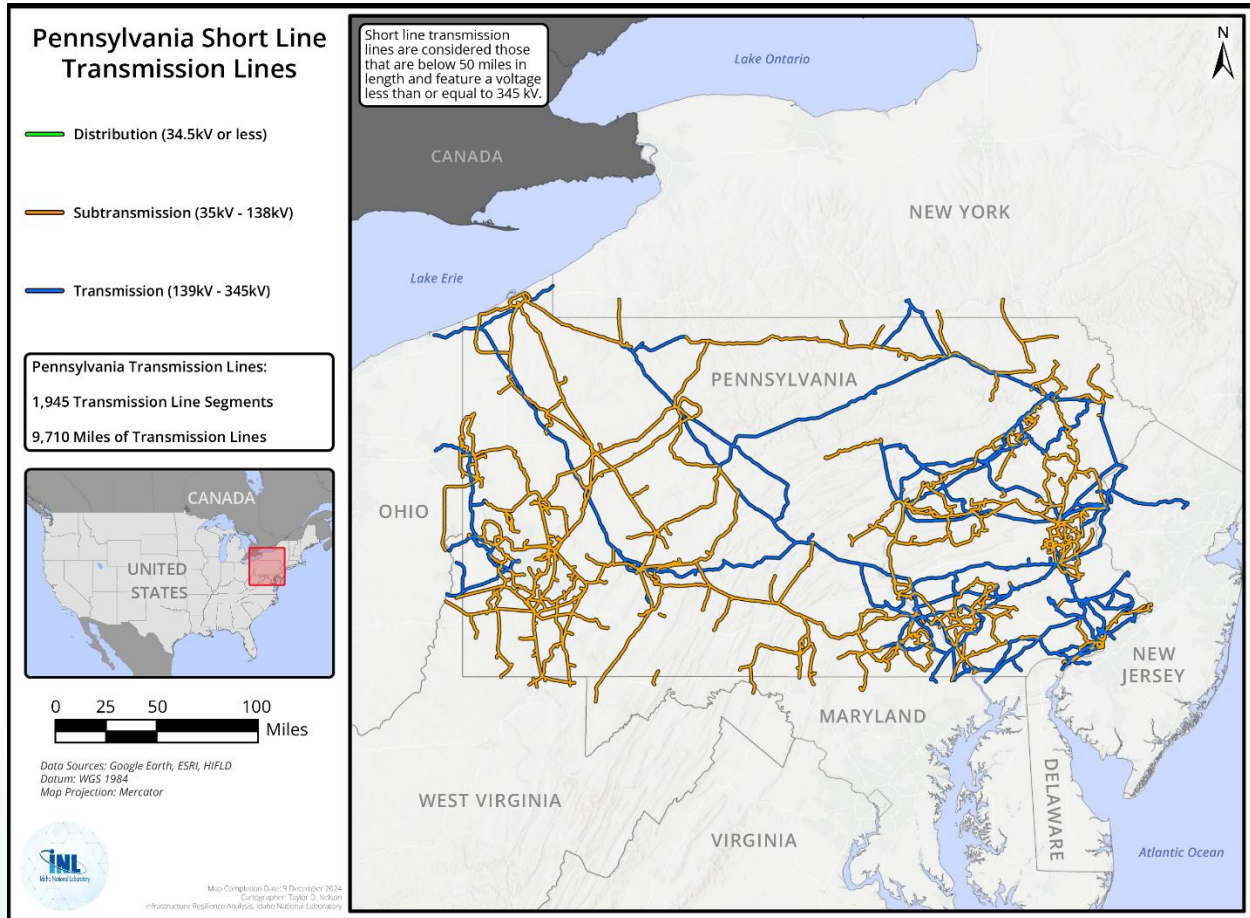


# OREGON



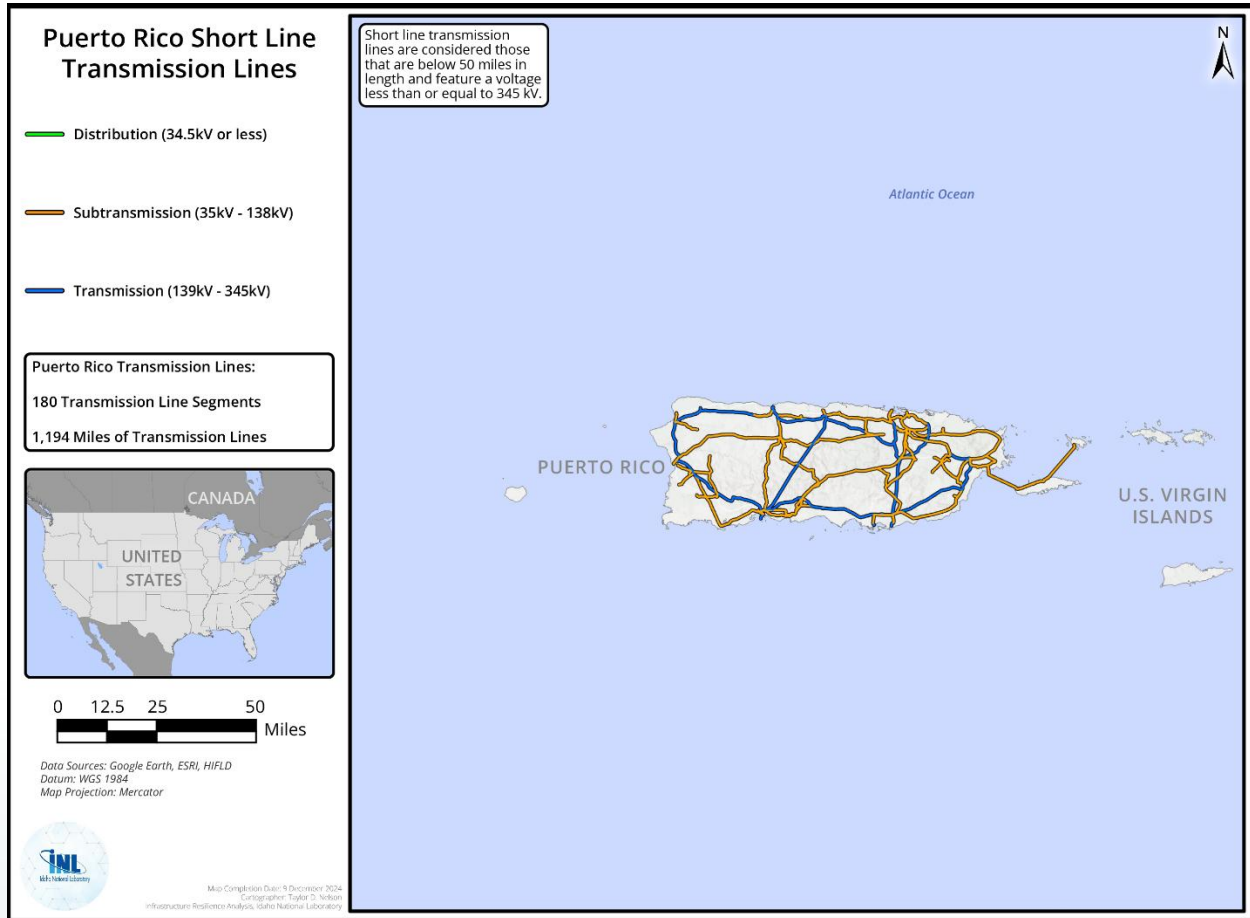


# PENNSYLVANIA



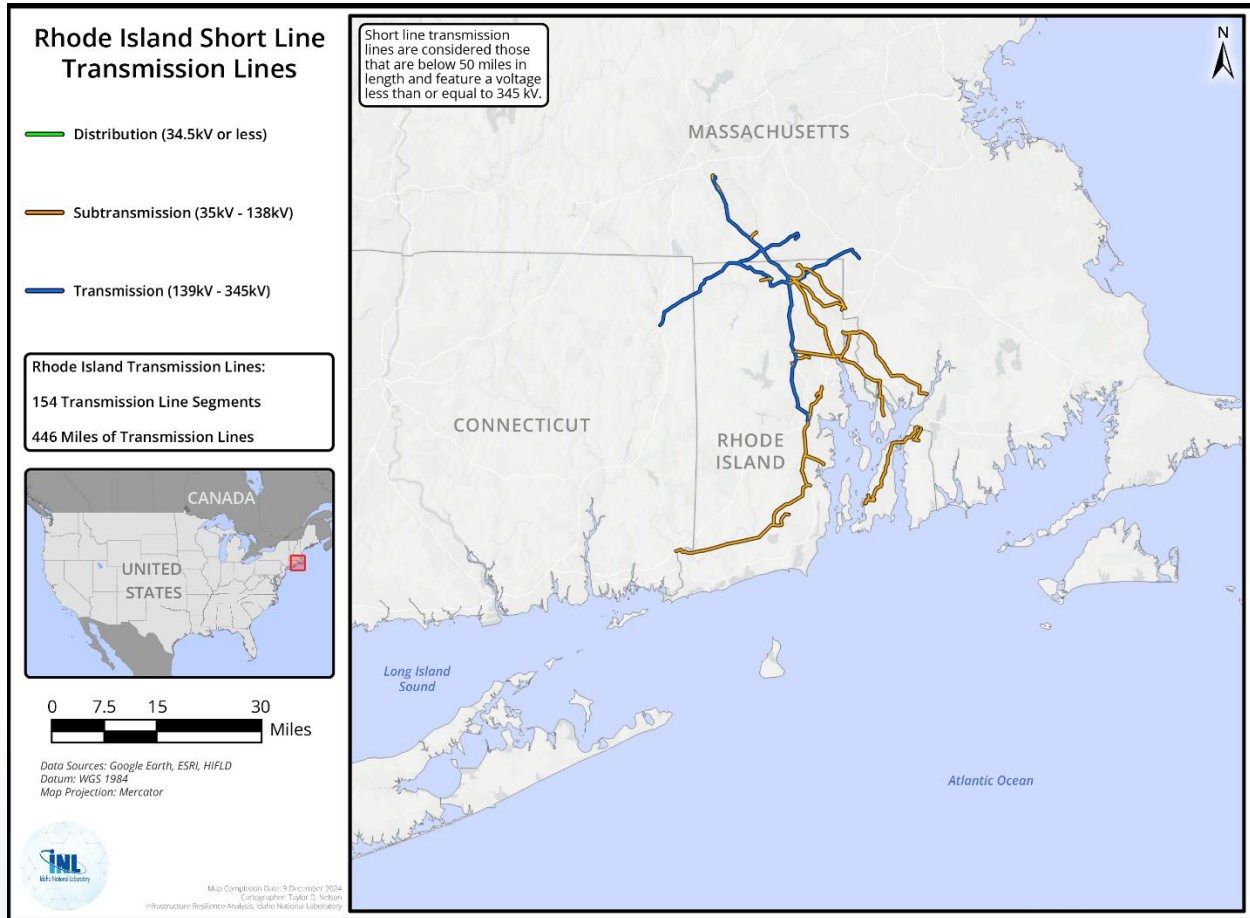


# PUERTO RICO



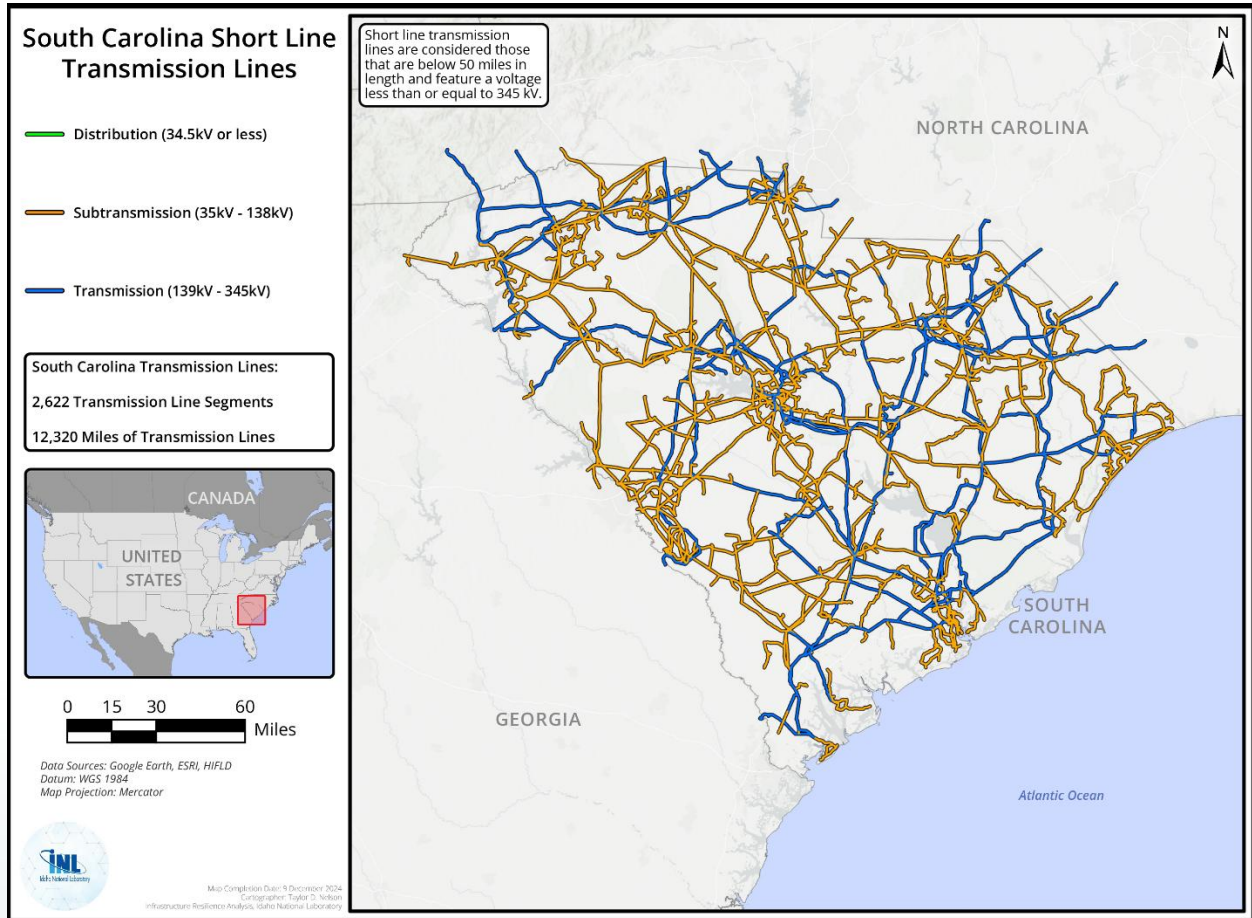


# RHODE ISLAND



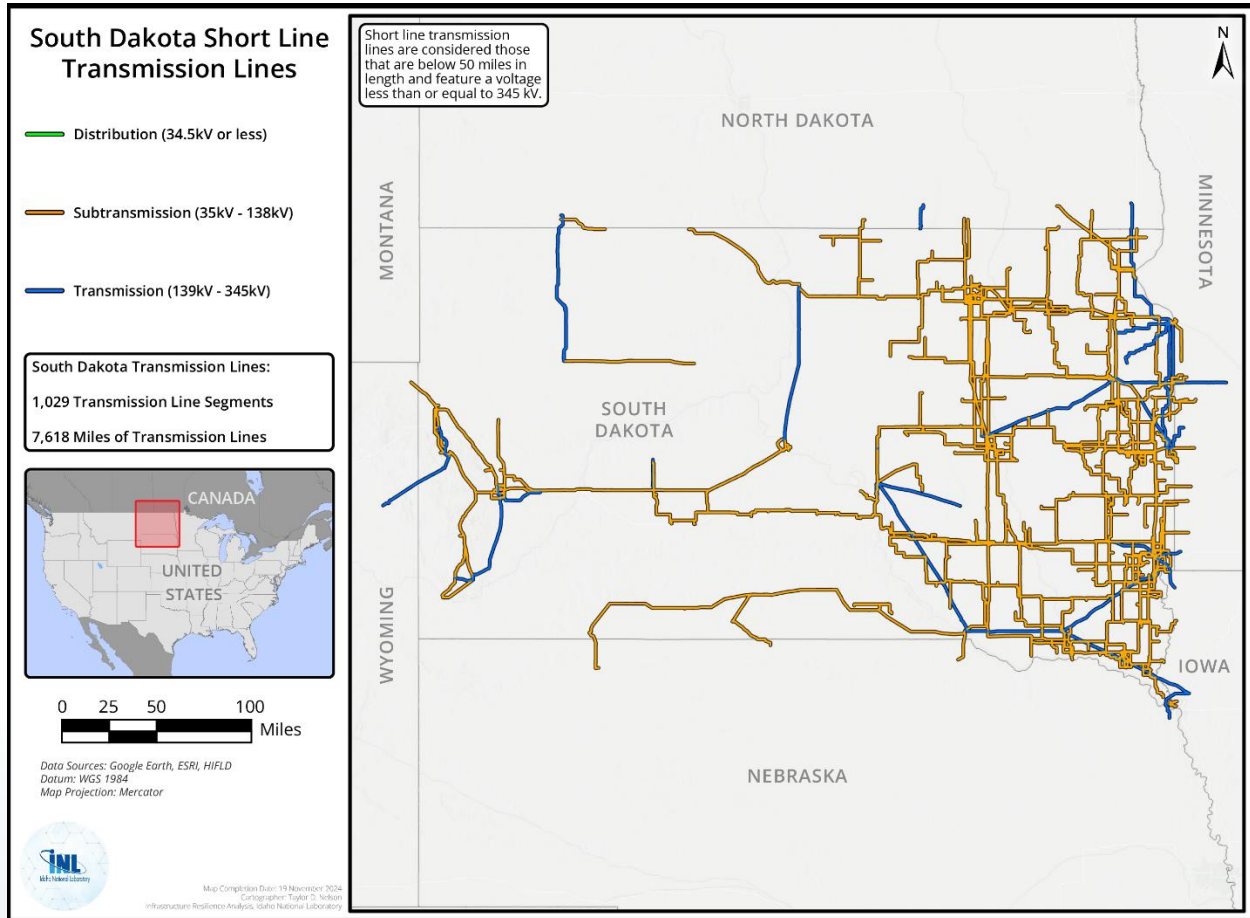


# SOUTH CAROLINA



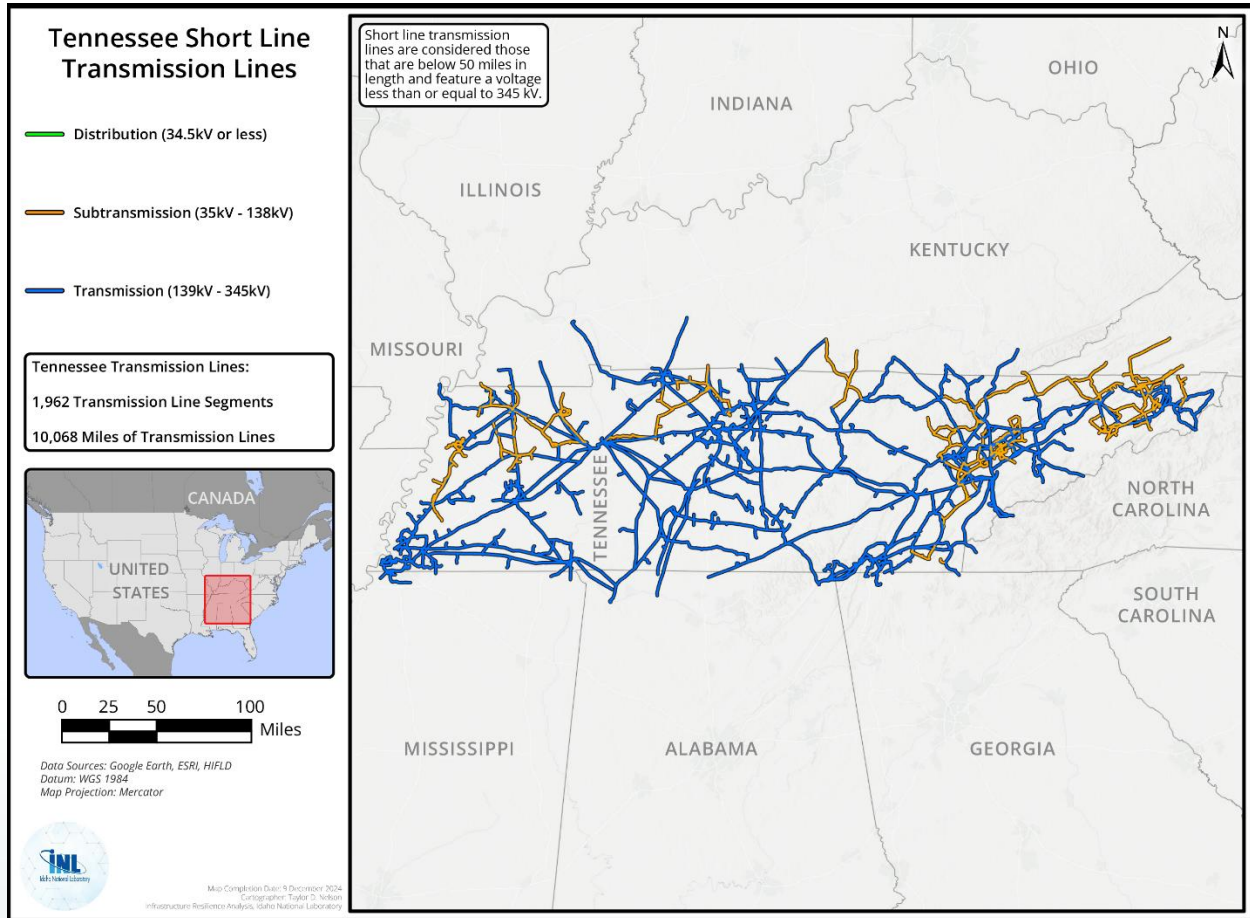


# SOUTH DAKOTA



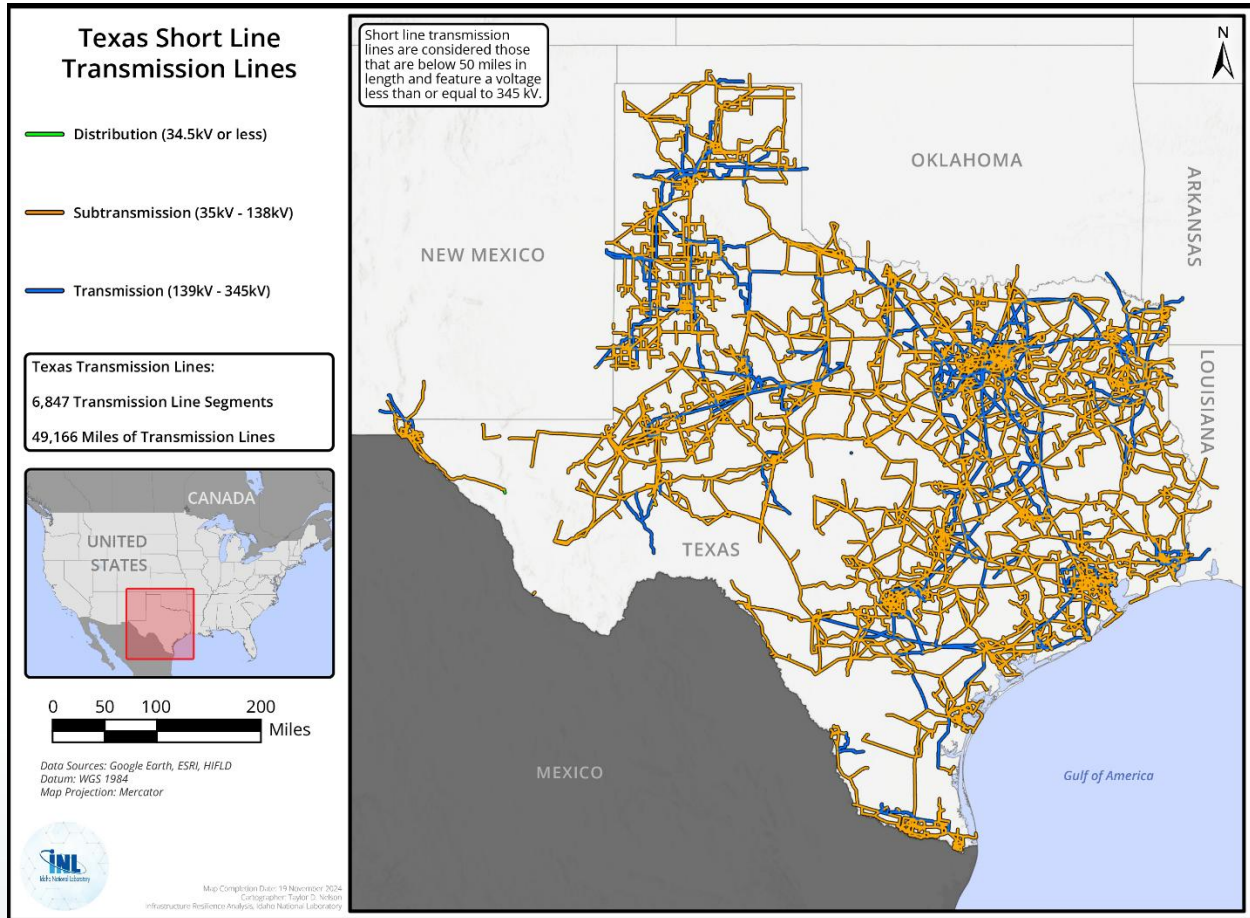


# TENNESSEE



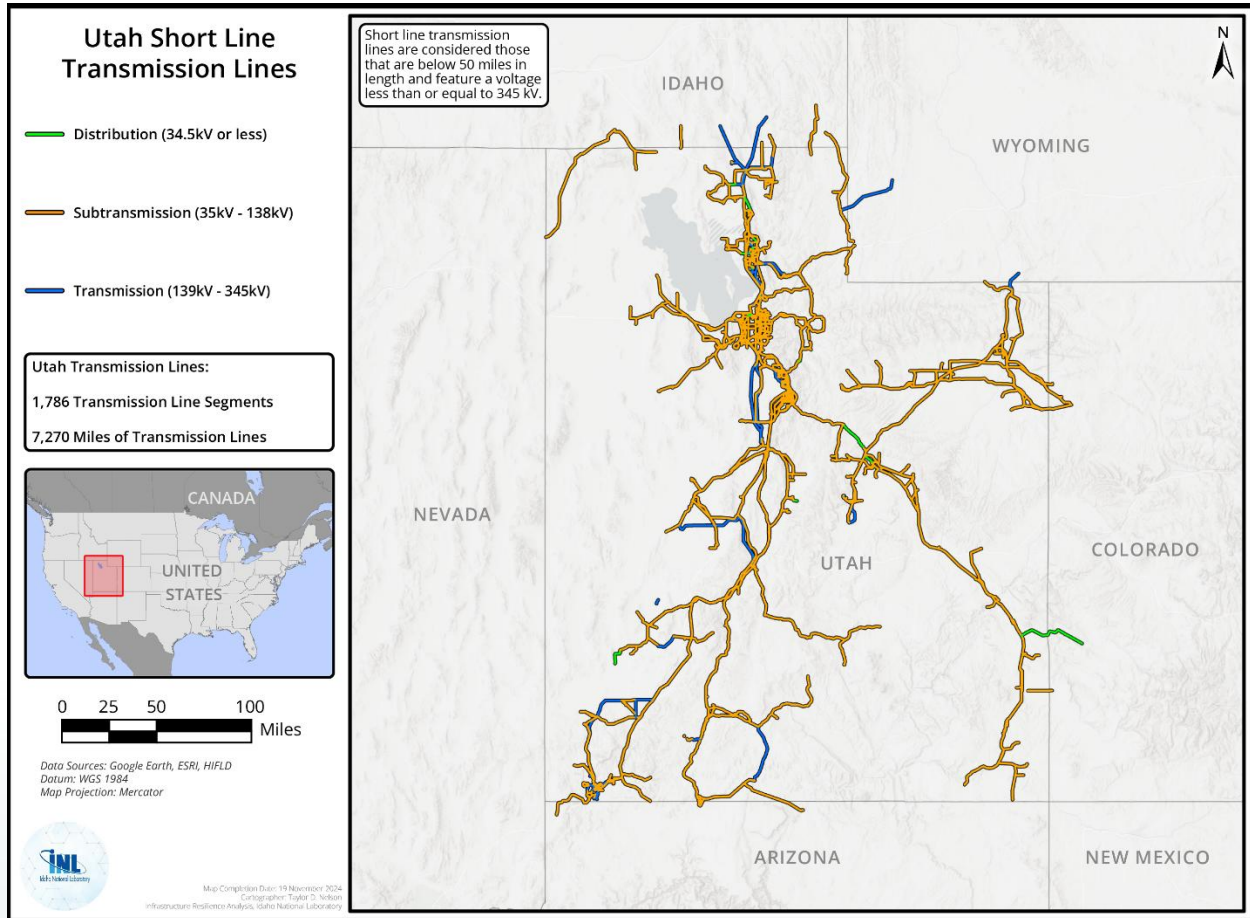


# TEXAS



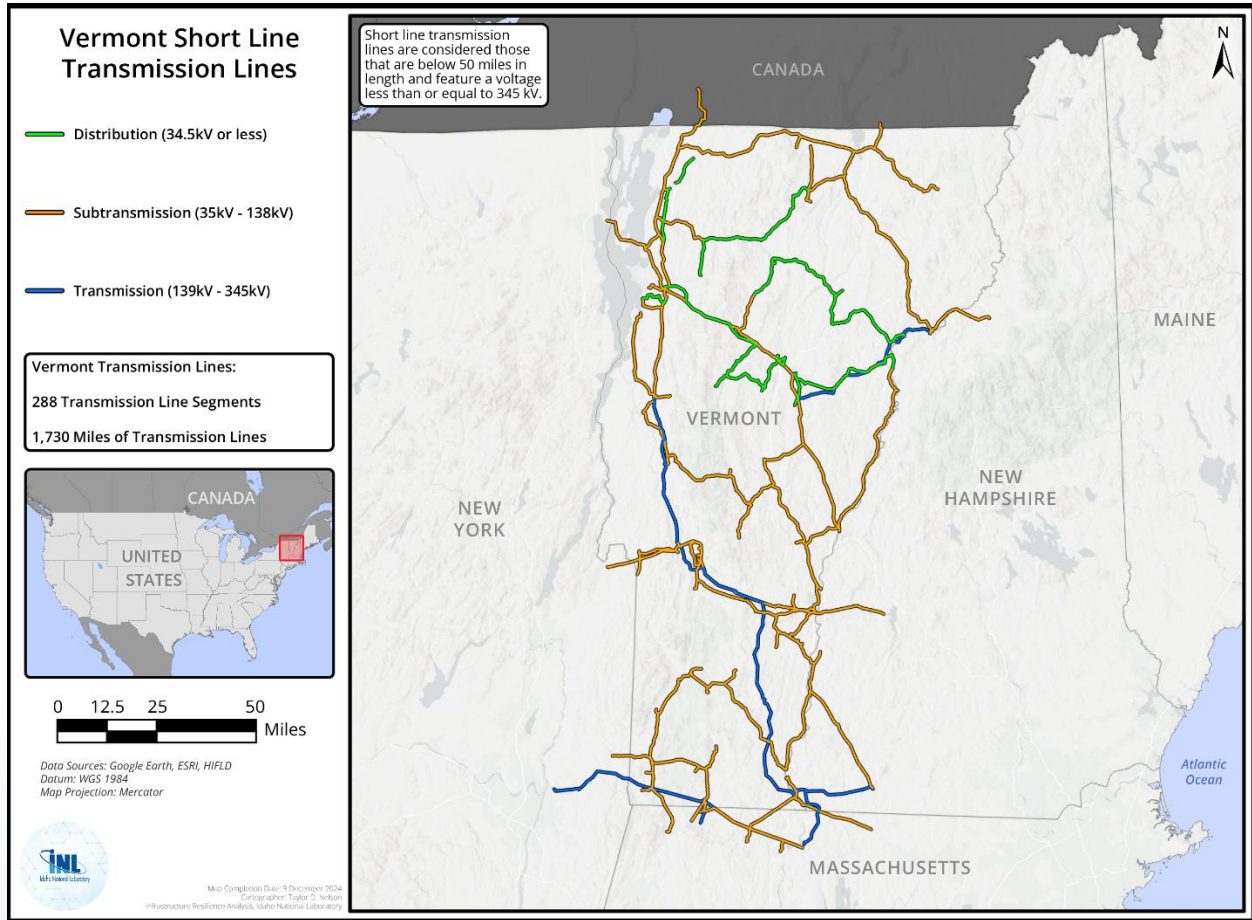


# UTAH



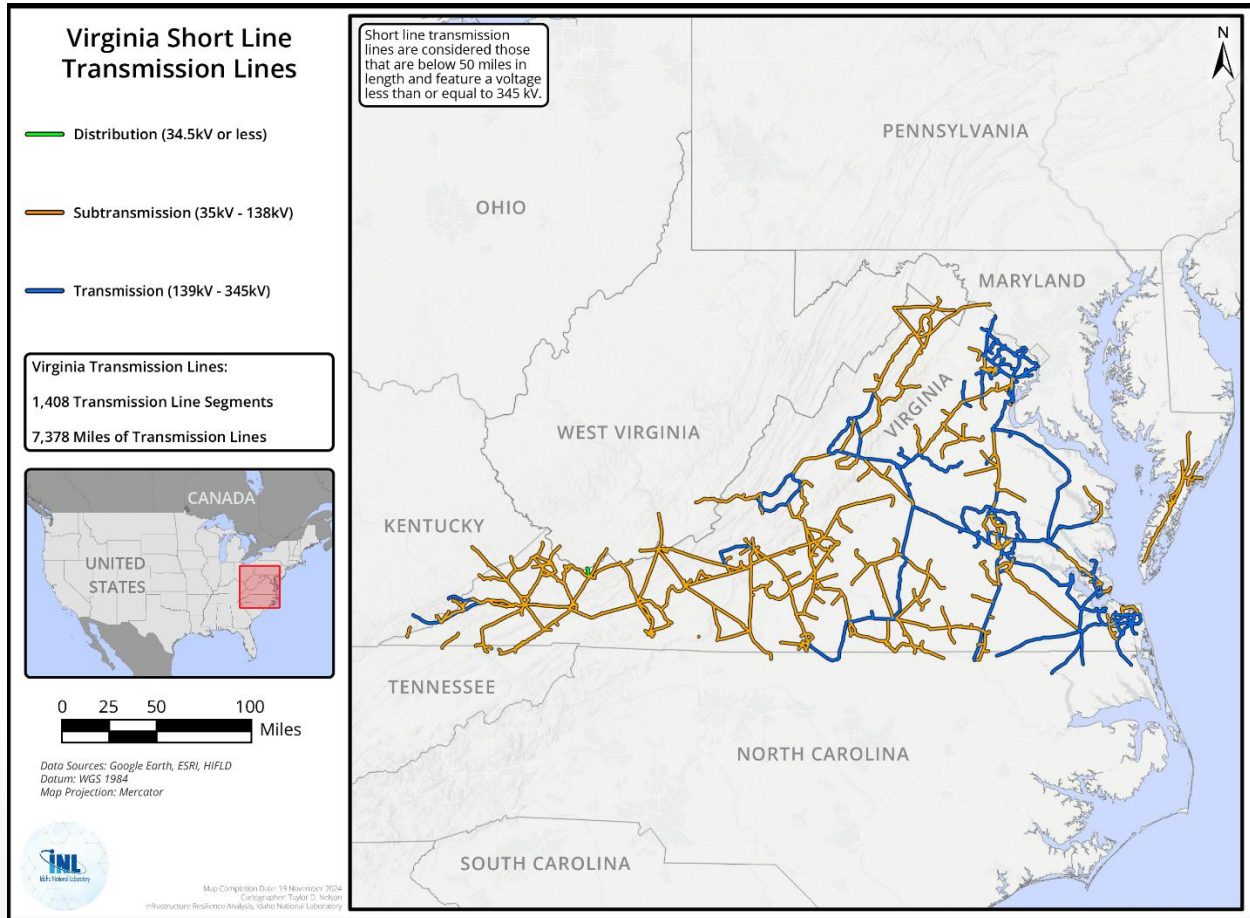


# VERMONT



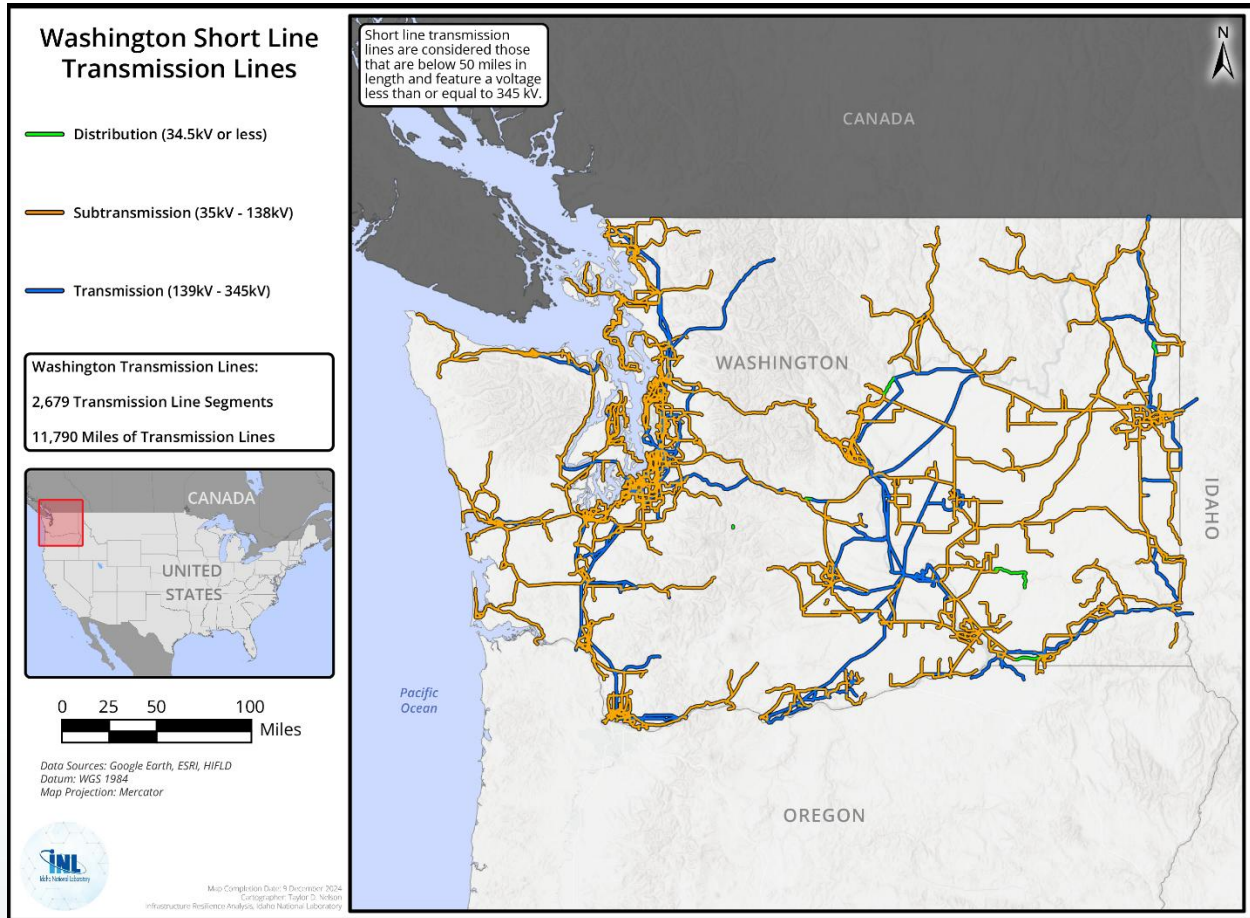


# VIRGINIA



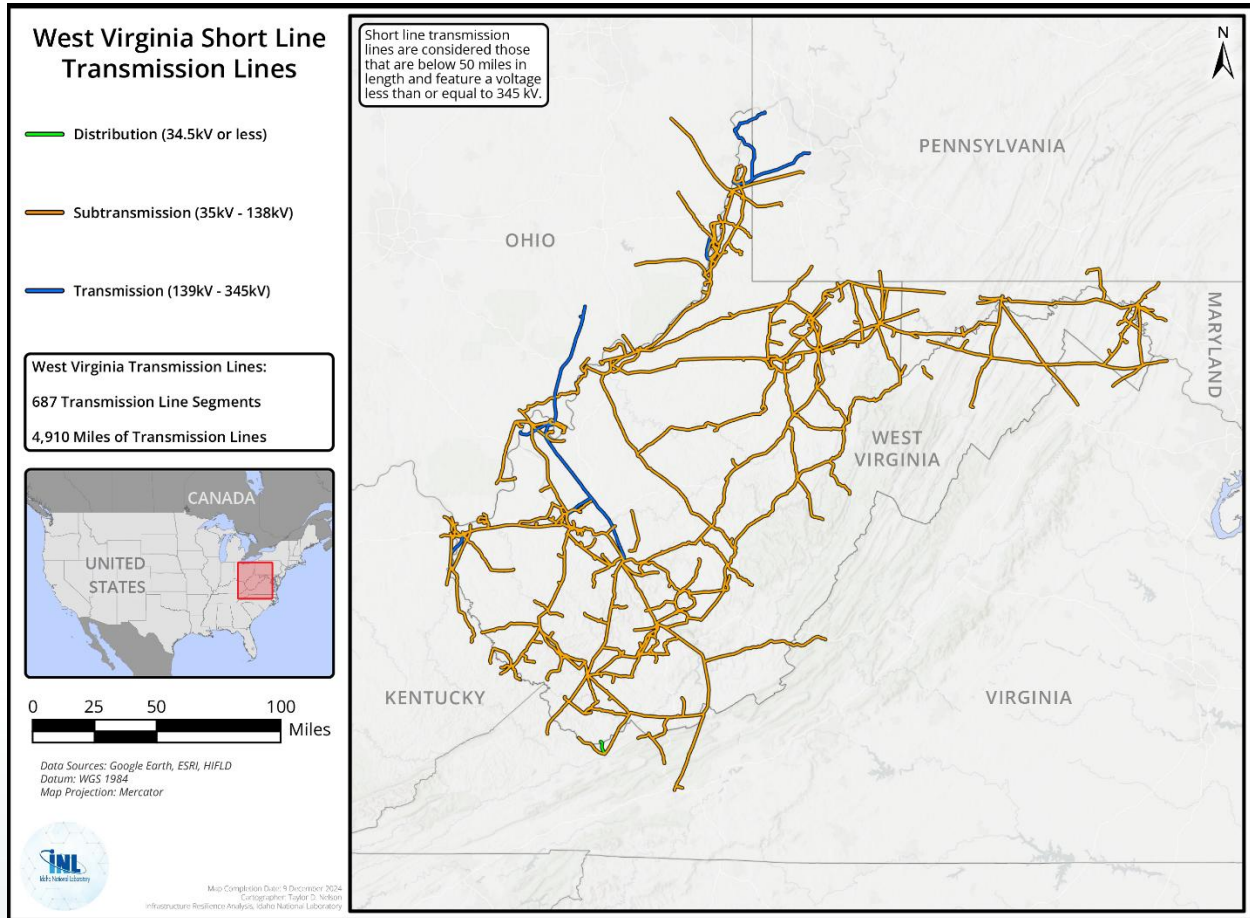


# WASHINGTON



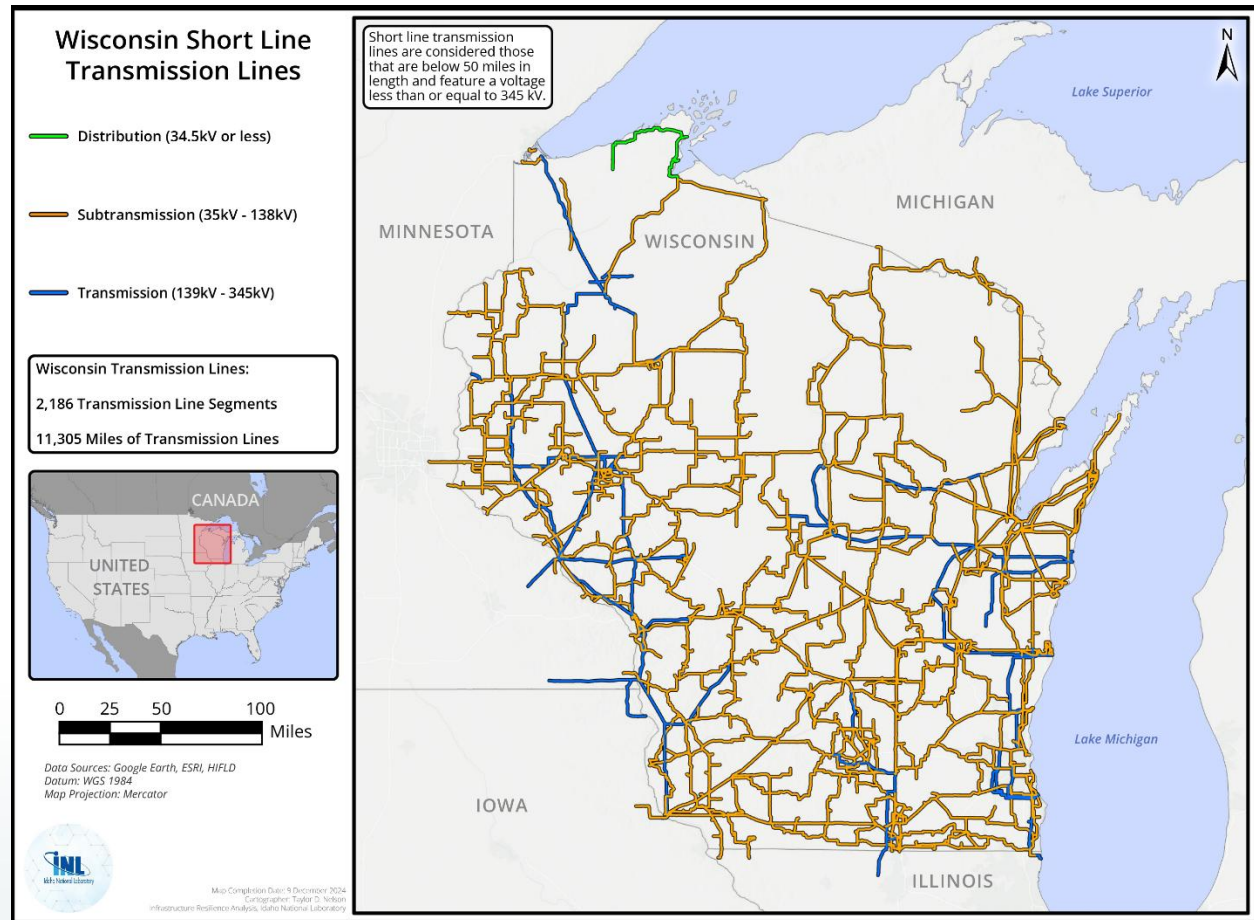


# WEST VIRGINIA





# WISCONSIN





# WYOMING

