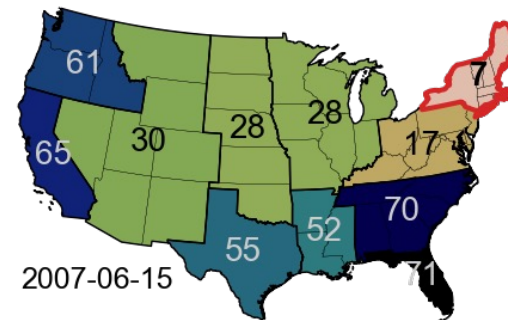
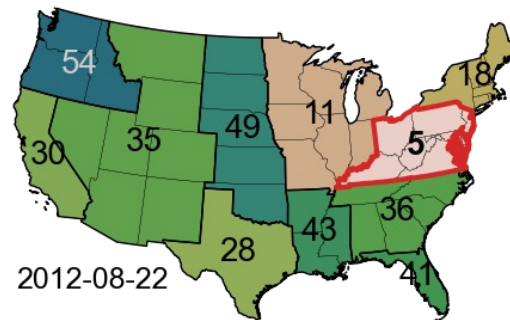
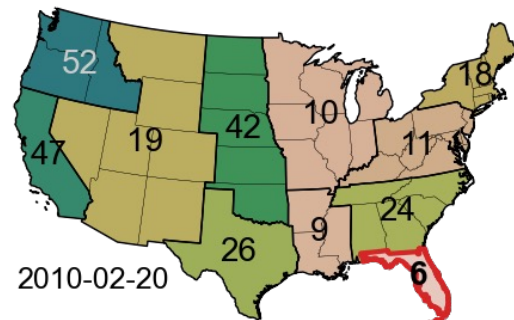
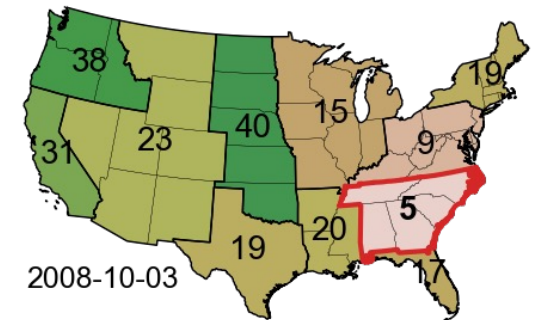
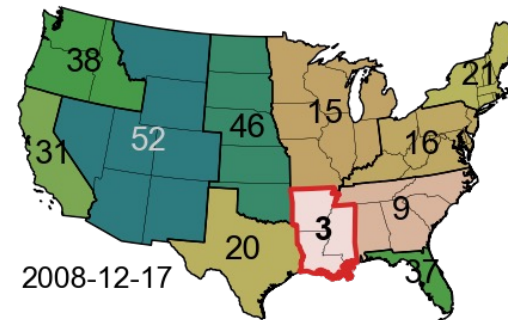
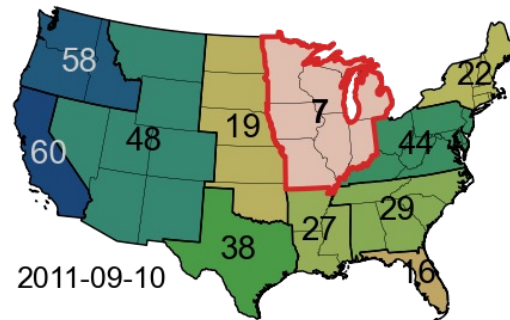
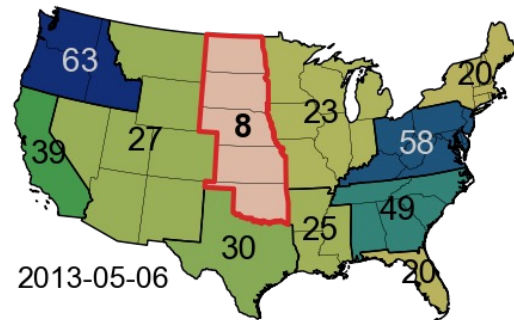
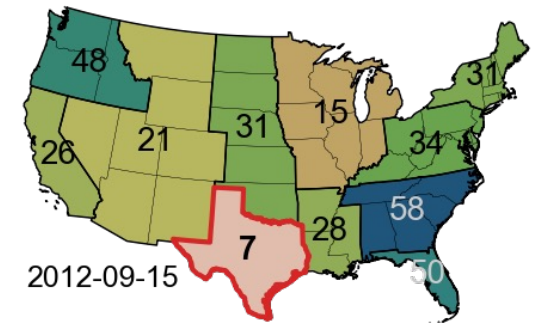
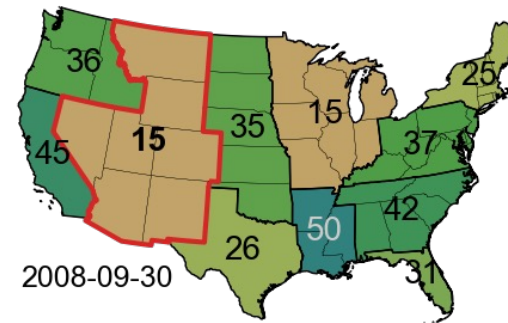
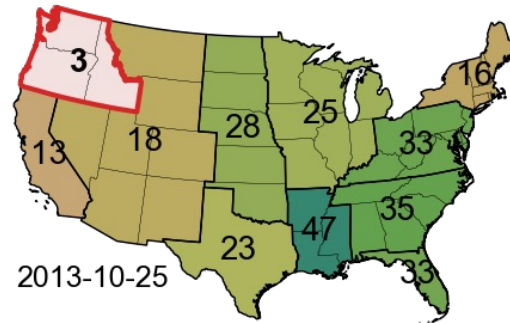
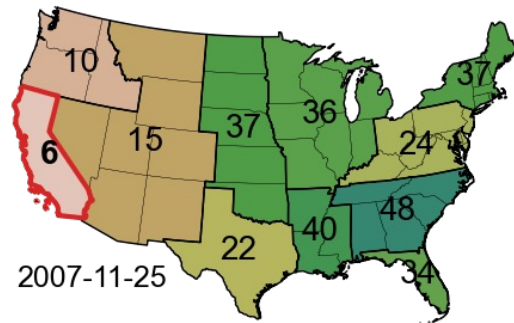


It's always windy or sunny somewhere

1

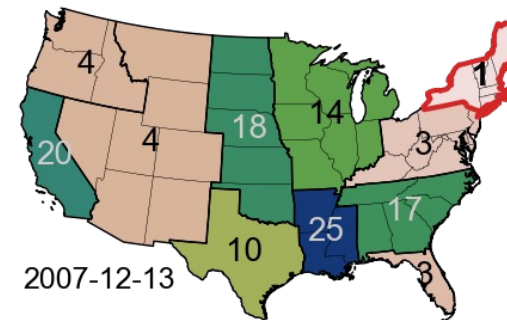
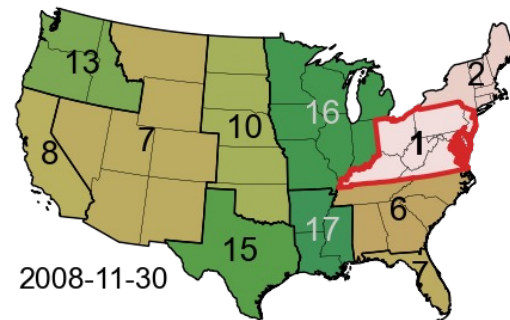
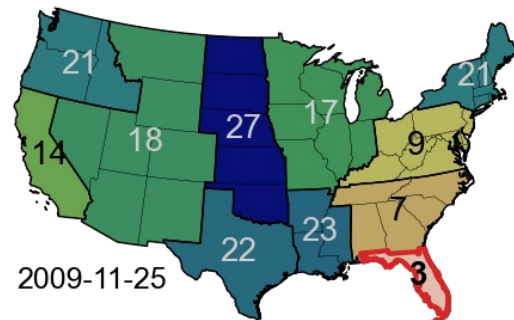
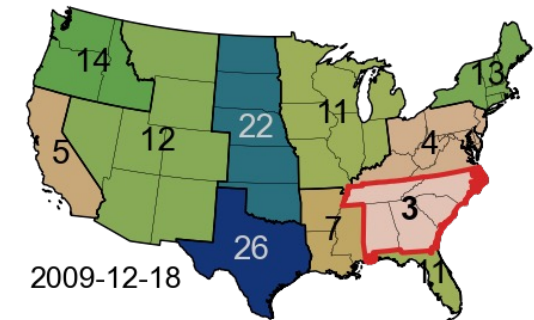
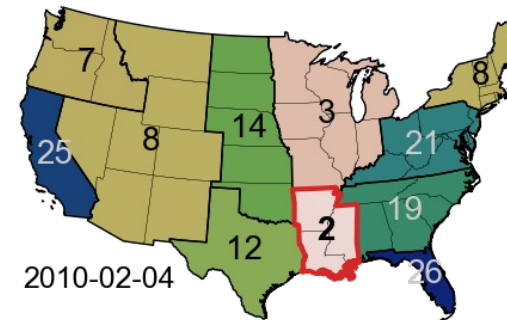
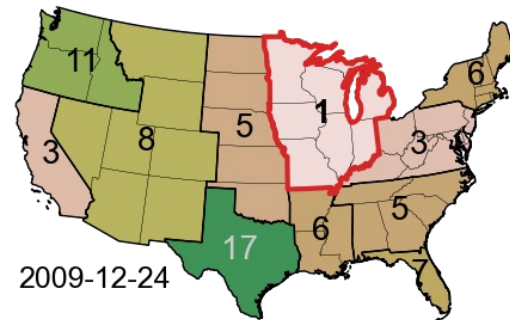
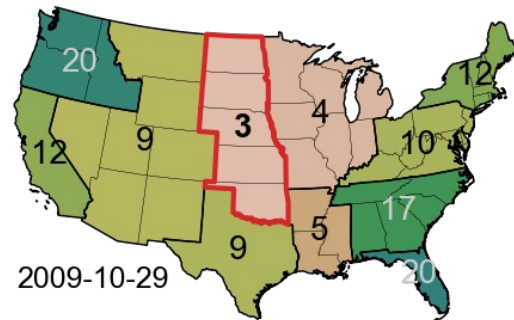
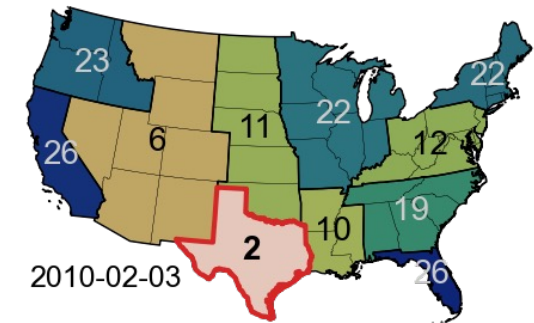
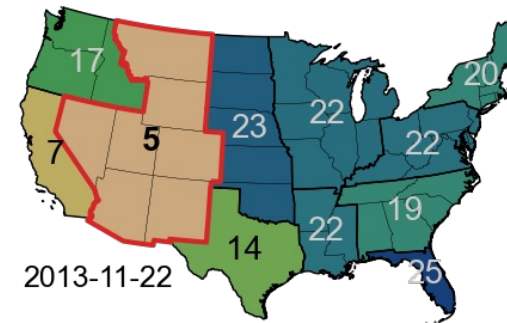
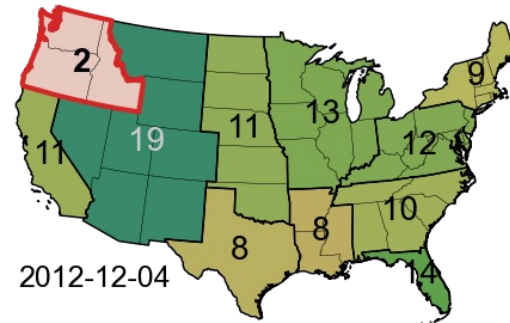
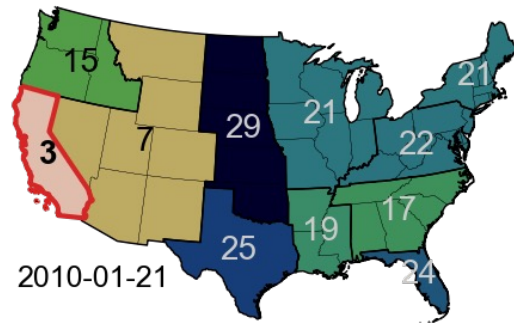
Take the **least-windy** day in each planning area from 2007–2013.
How windy are each of the other planning areas on that day?



Single-day **wind**
capacity factor [%]
at top quintile of sites

It's always windy or sunny somewhere

Take the **least-sunny** day in each planning area from 2007–2013.
How **sunny** are each of the other planning areas on that day?

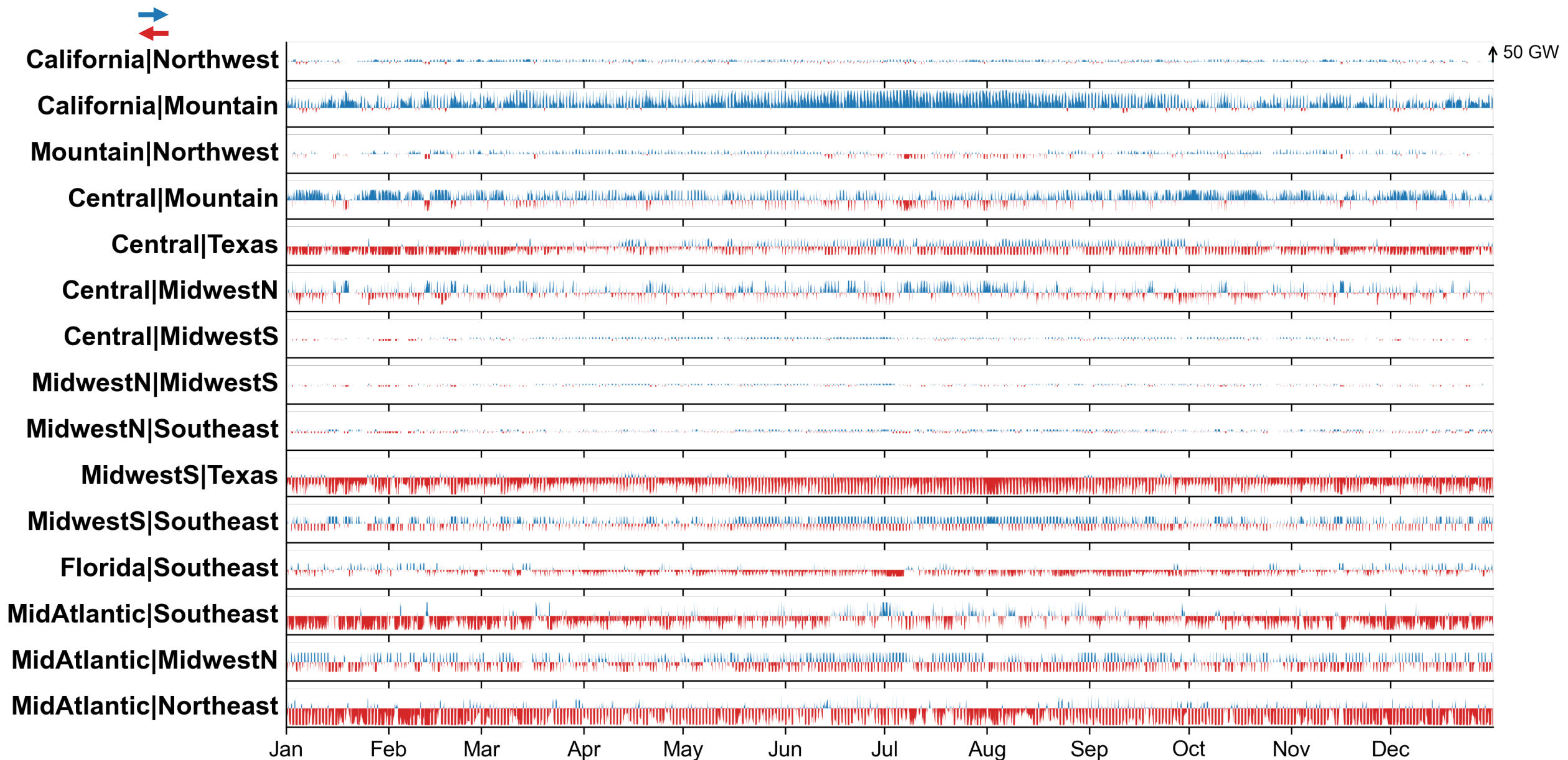


Single-day **PV**
capacity factor [%]
at top quintile of sites

Flexible operation of interregional transmission

USA + AC + DC scenario

Modeled 2040 flows with 2010 weather

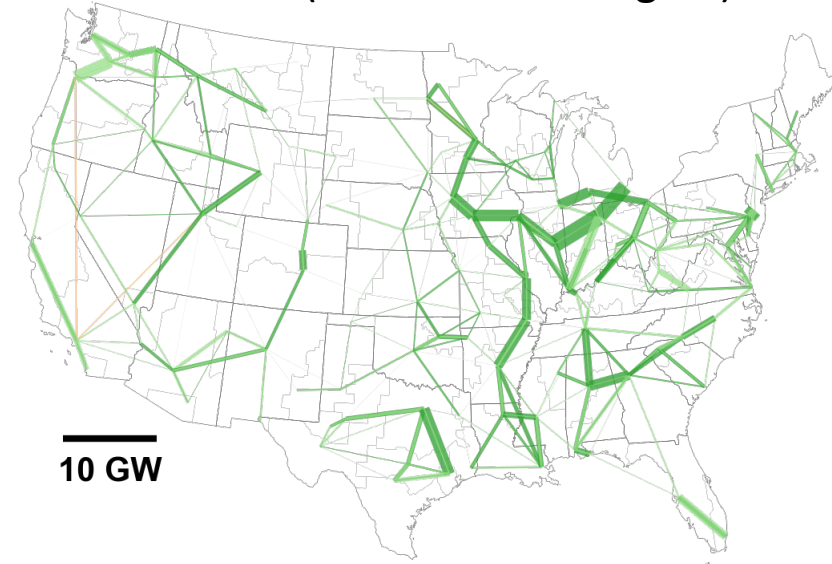


What if new interregional transmission is allowed?

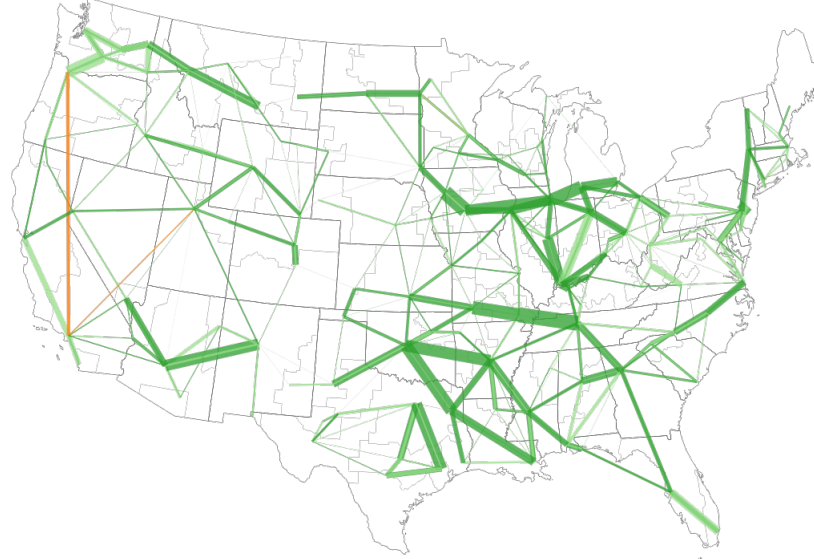
4

Medium demand, 80% by 2035 / 100% by 2050

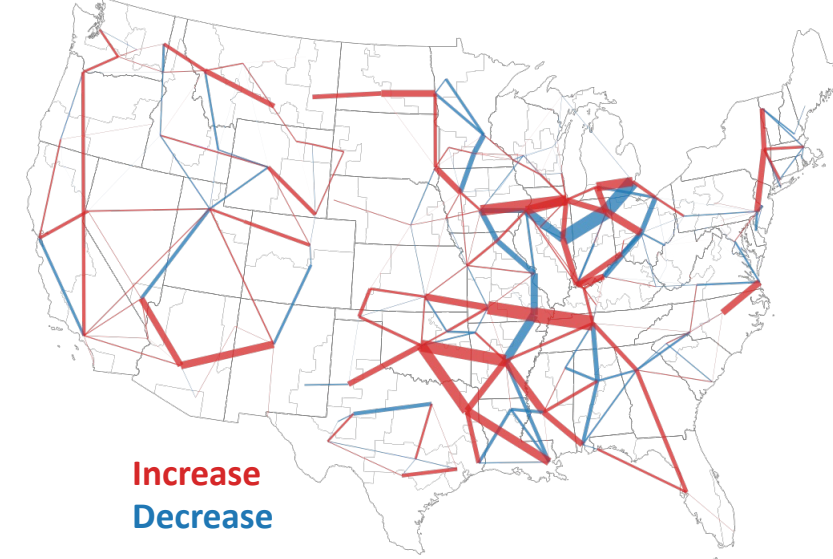
“Limited” (no inter-FERC-region)



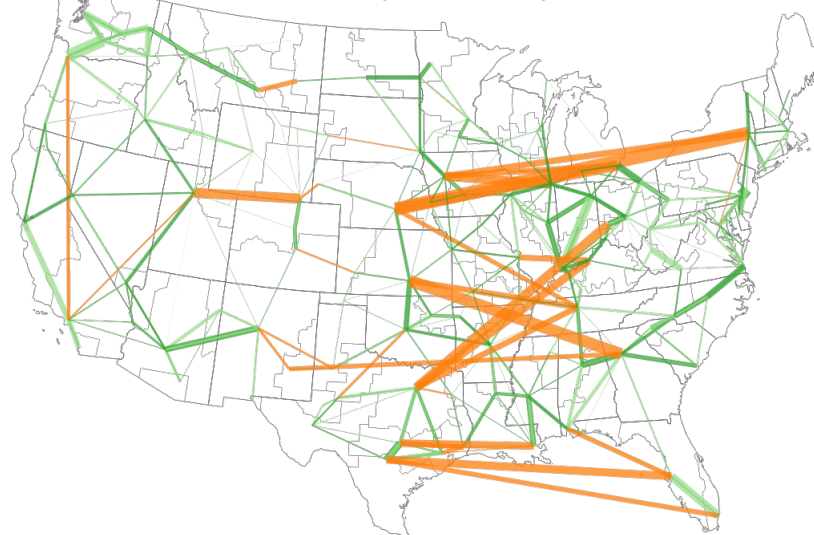
“AC” (new intra-interconnect AC)



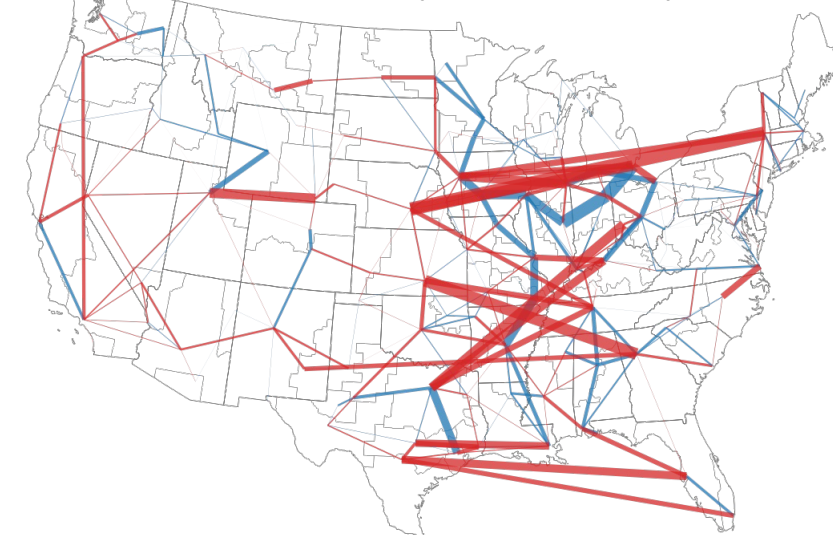
Difference (center – left)



“LCC” (new DC)



Difference (center – left)

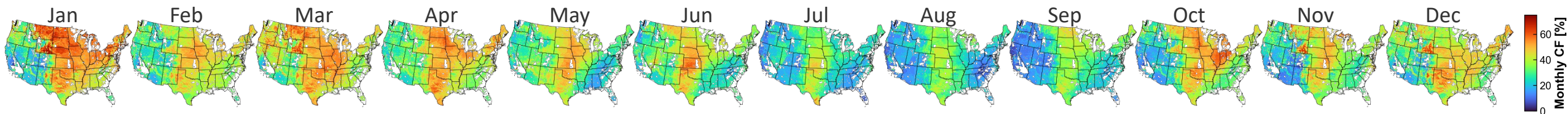


1. Inter-ISO capacity additions (AC or DC as available) replace some intra-ISO additions in the Midwest

Preliminary results only
– do not cite or distribute

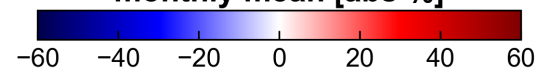
How do days differ from monthly average? (wind)

2012



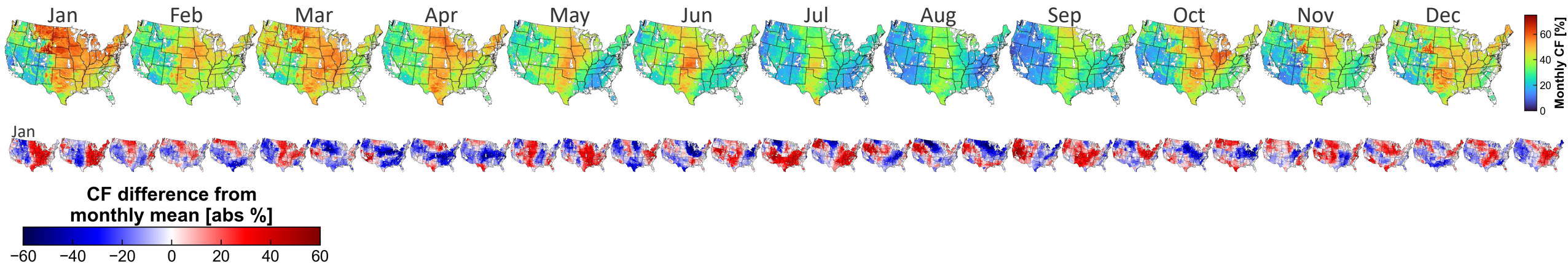
Jan 1

CF difference from
monthly mean [abs %]



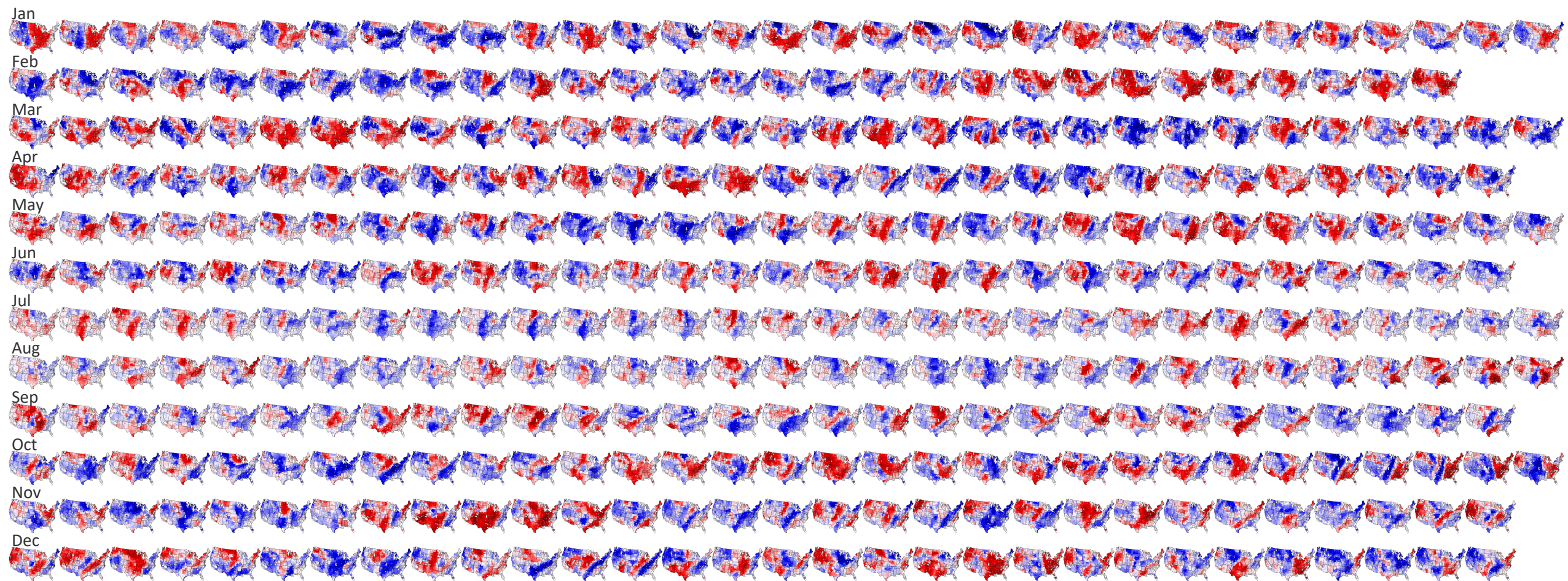
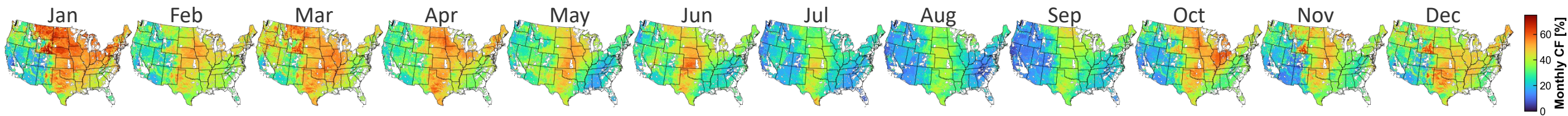
How do days differ from monthly average? (wind)

2012



How do days differ from monthly average? (wind)

2012



It's hard to pick representative days for a system as large as the contiguous US!