



ASAP
(American Solar Action Plan)

PV-Wind Monthly Slideshow

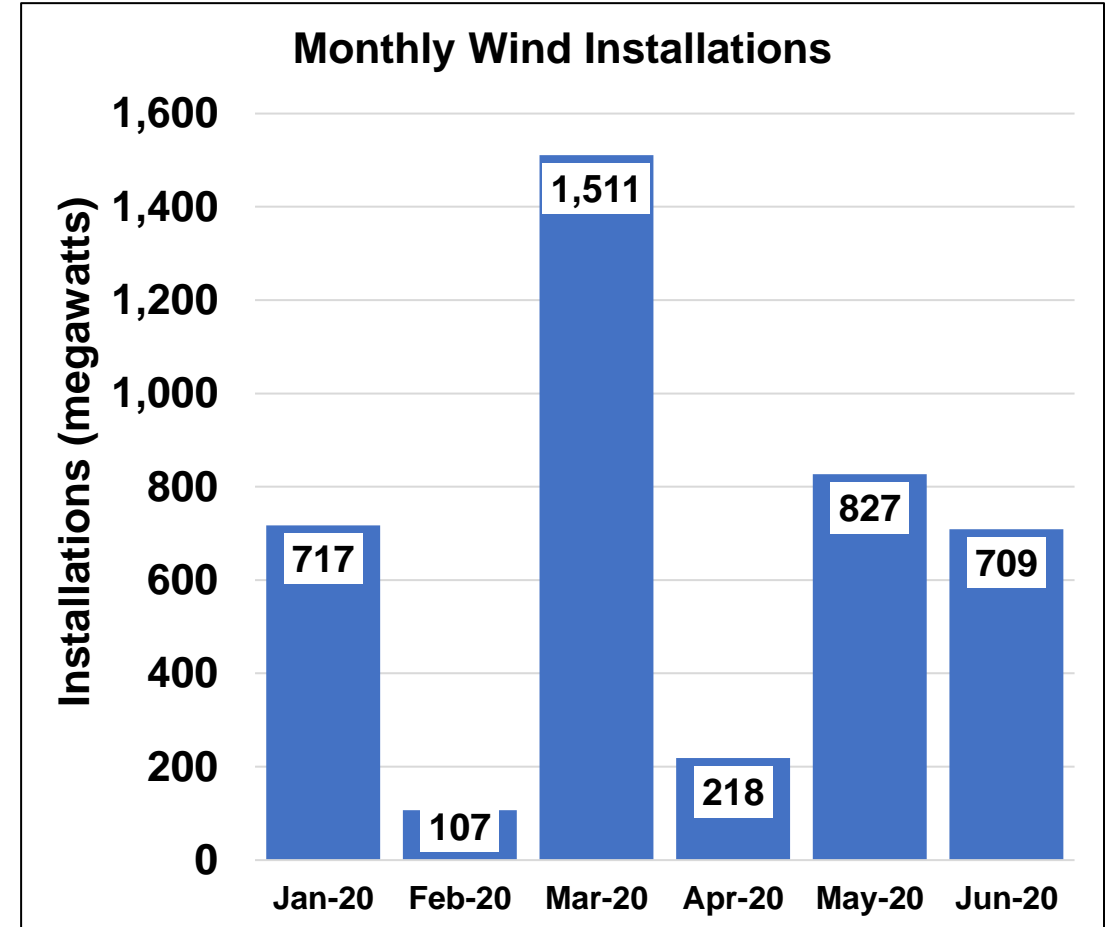
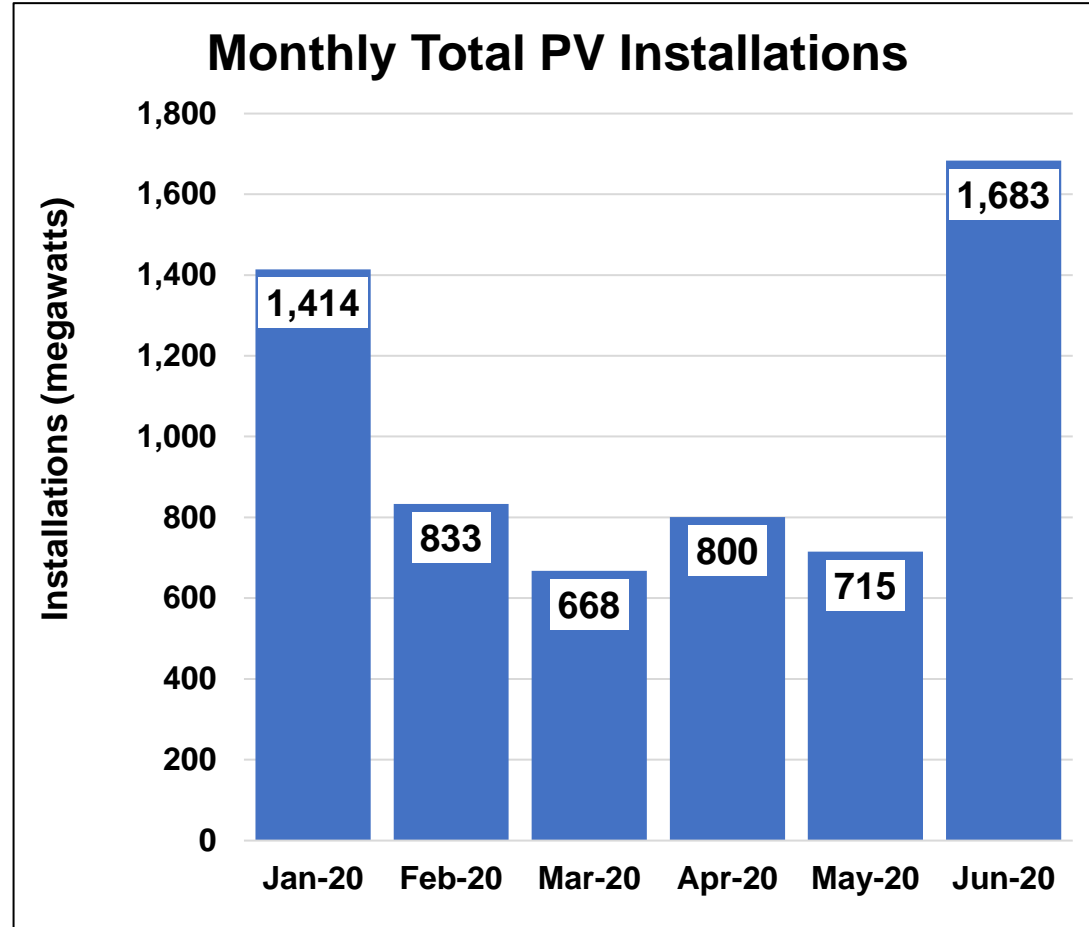
September 2020

ASAP
Website: www.solarplan.org
Contact: asap@solarplan.org

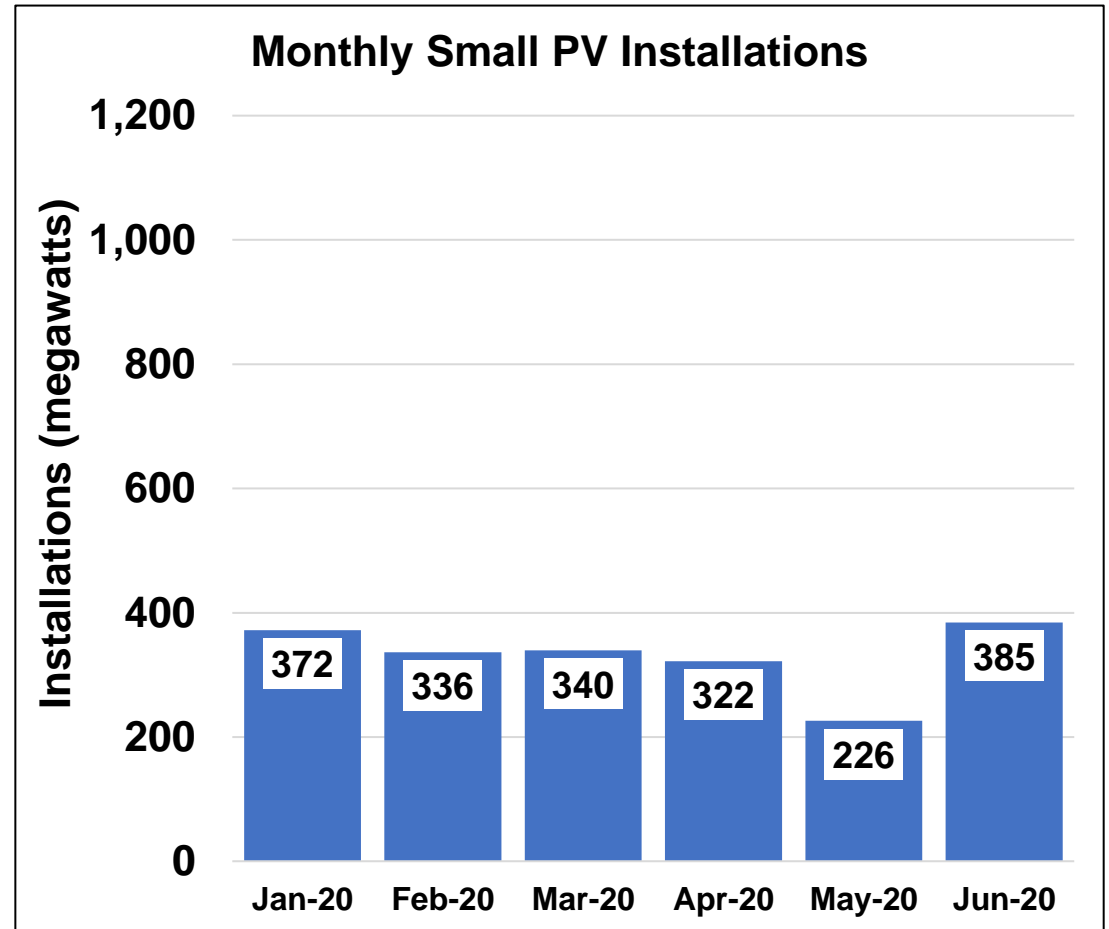
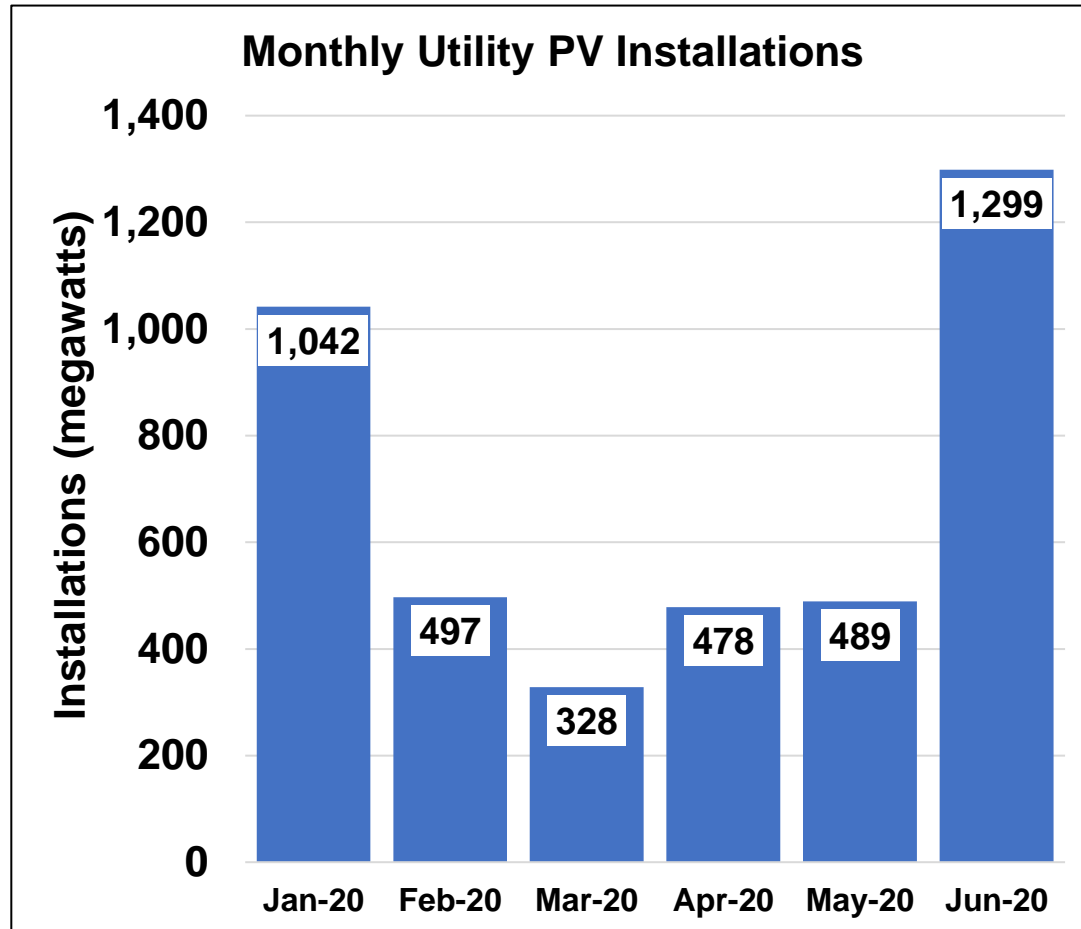


PV and Wind Capacity and Capacity Growth

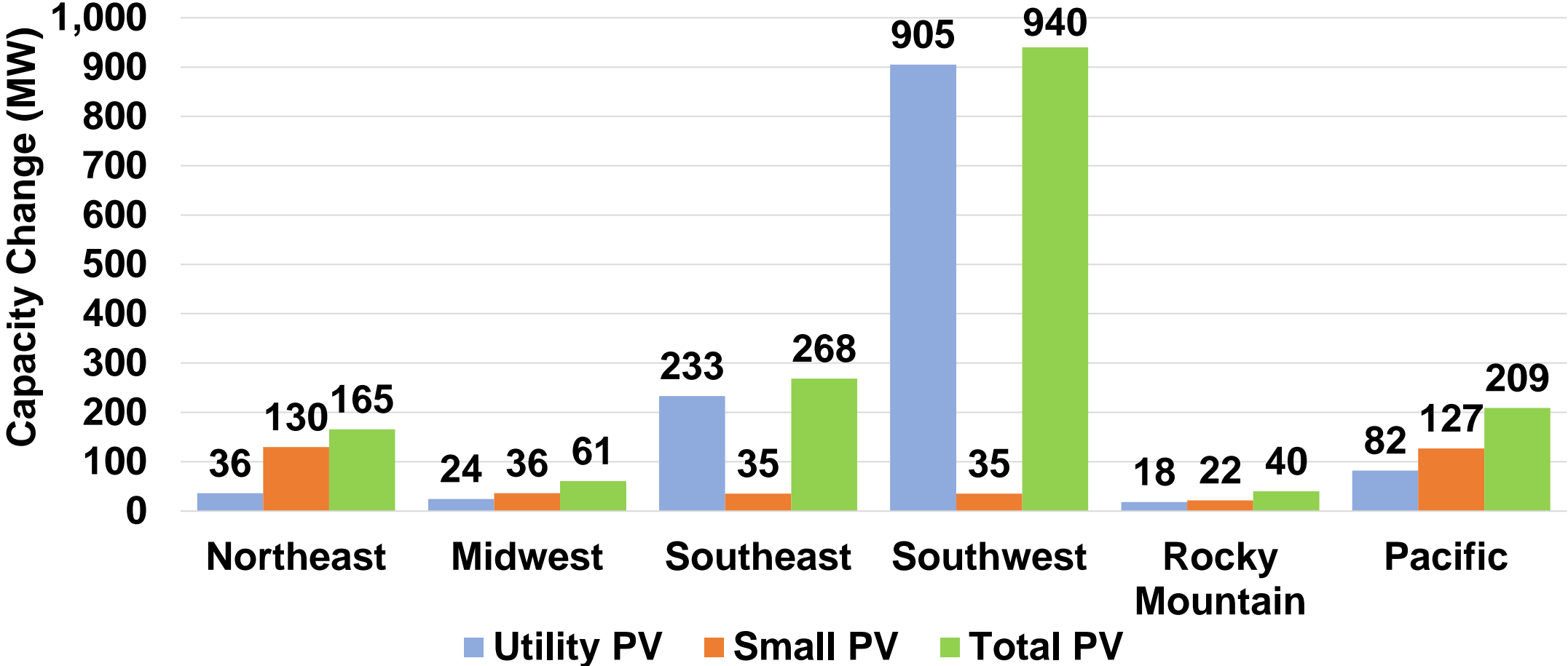
2020 – Net Monthly PV and Wind Installations (New Installations minus Removed from Service)



2020 – Net Monthly PV Installations (New Installations minus Removed from Service)

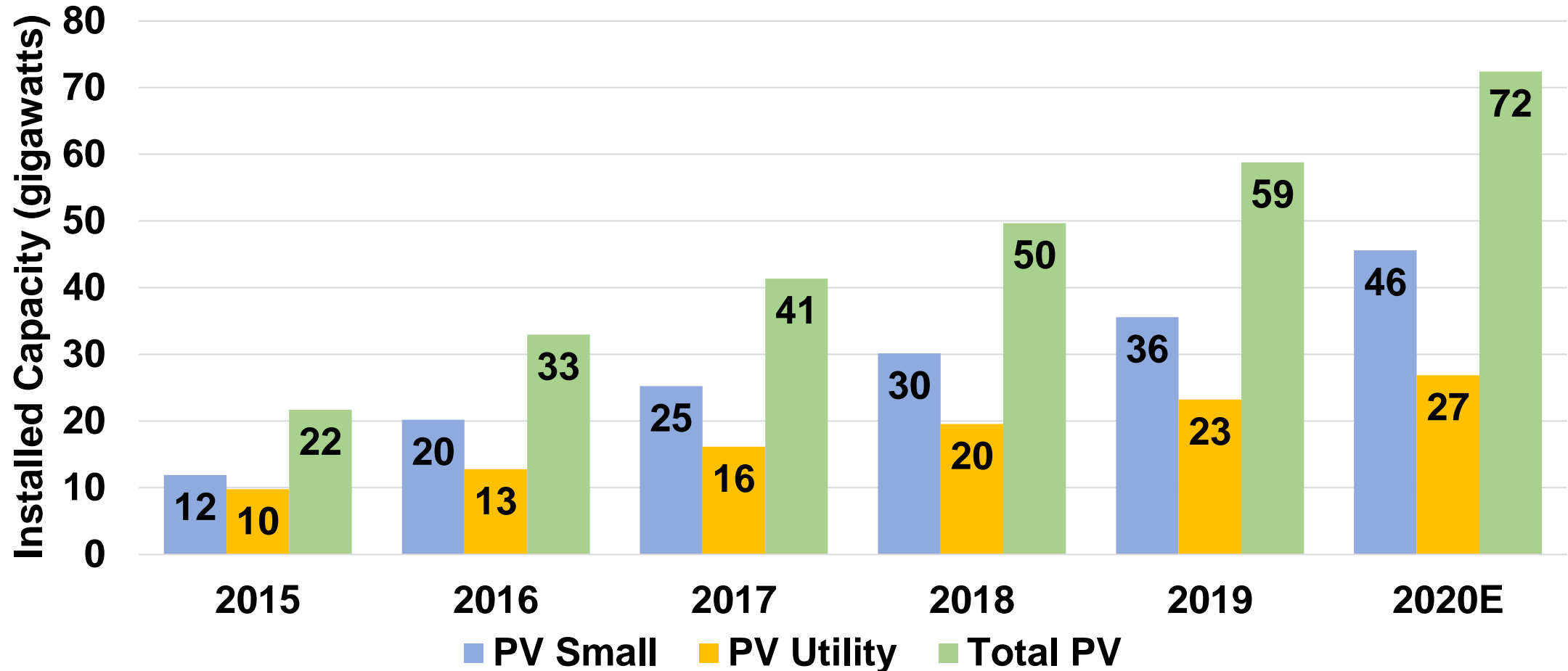


Regional PV - Net Capacity Additions June 2020



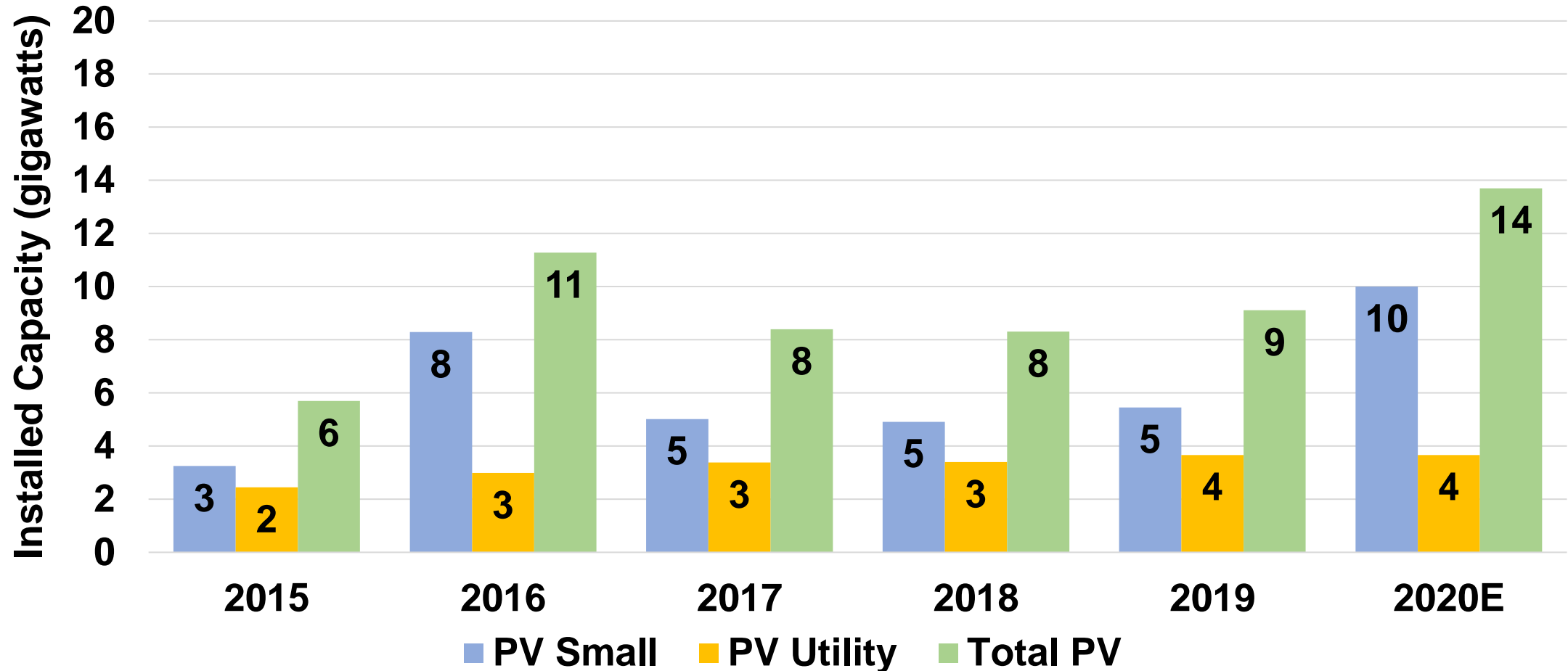
PV Cumulative Installed Capacity – 2020 Forecast

Small PV, Utility PV and Total PV

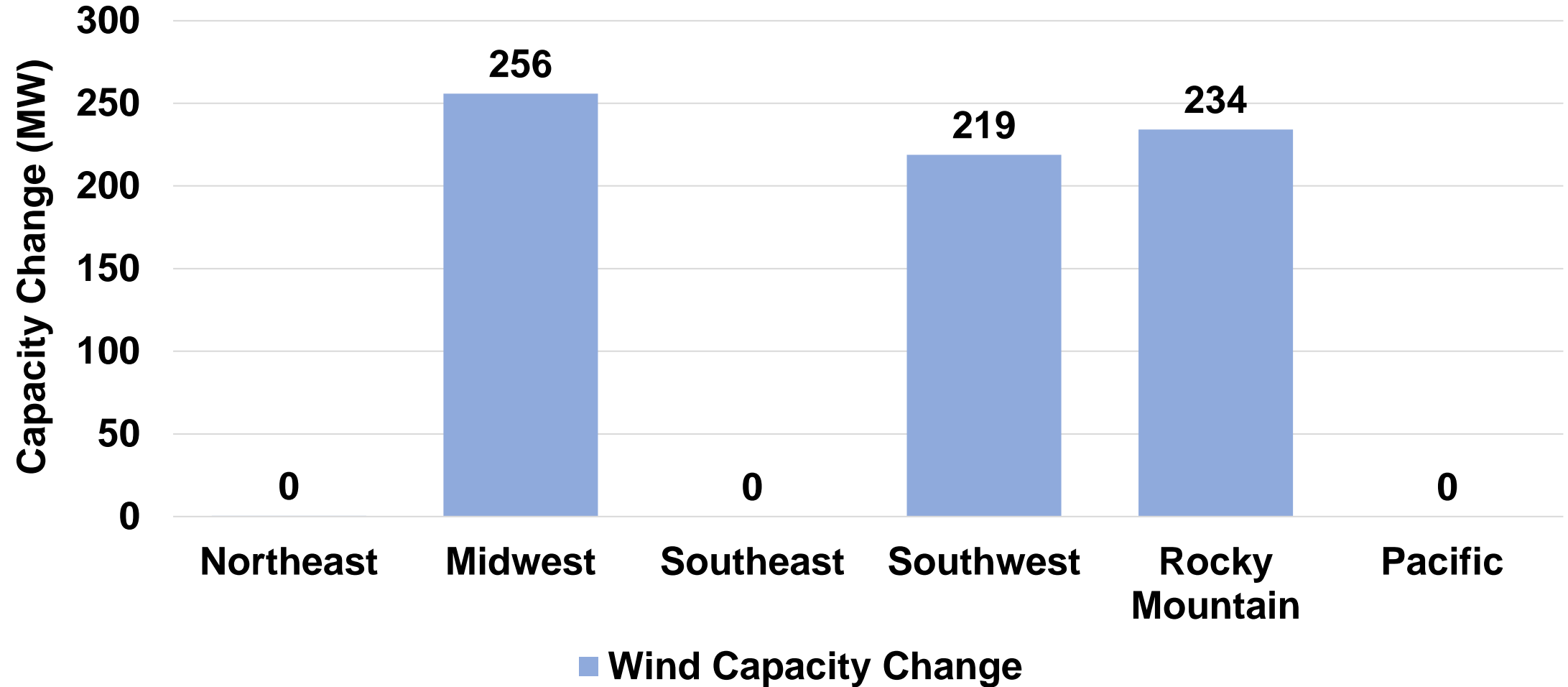


Annual Growth – PV Installed Capacity – 2020 Forecast

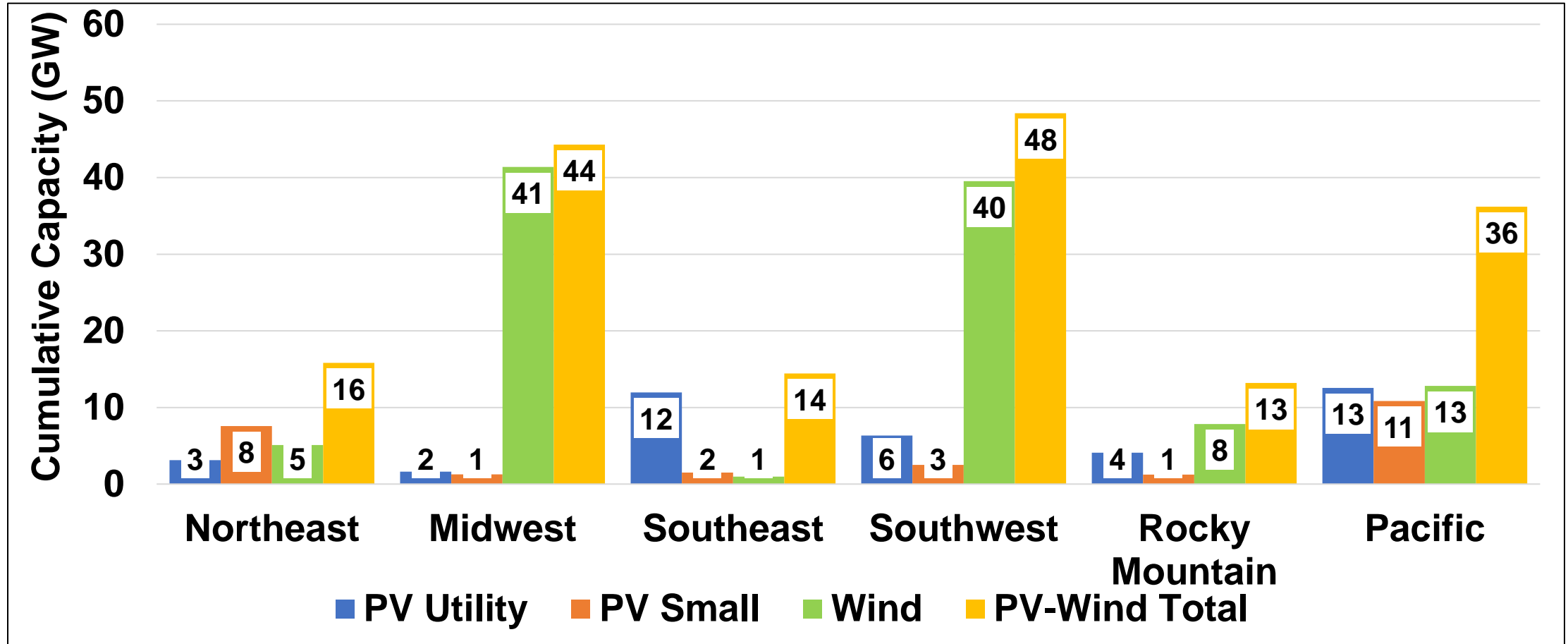
Small PV, Utility PV and Total PV



Regional Wind – Net Capacity Additions June 2020

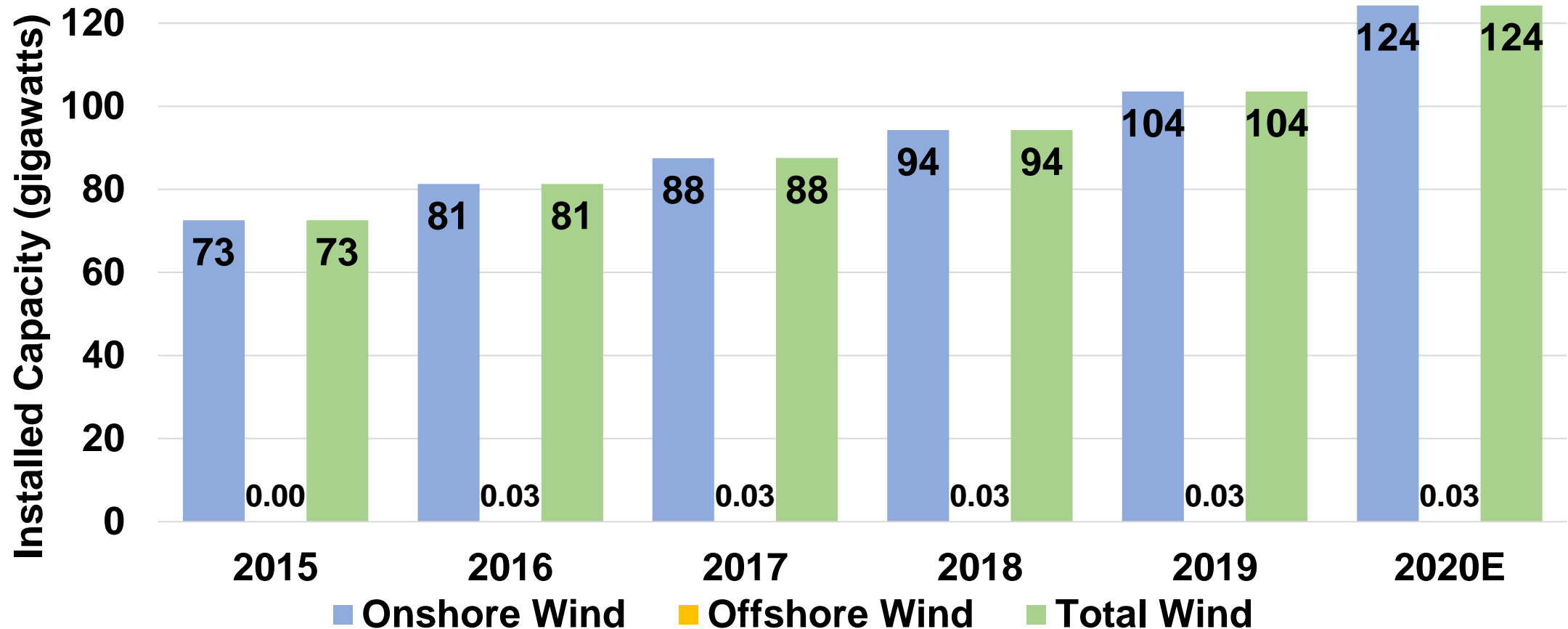


PV and Wind Cumulative Capacity by Region Through June 2020



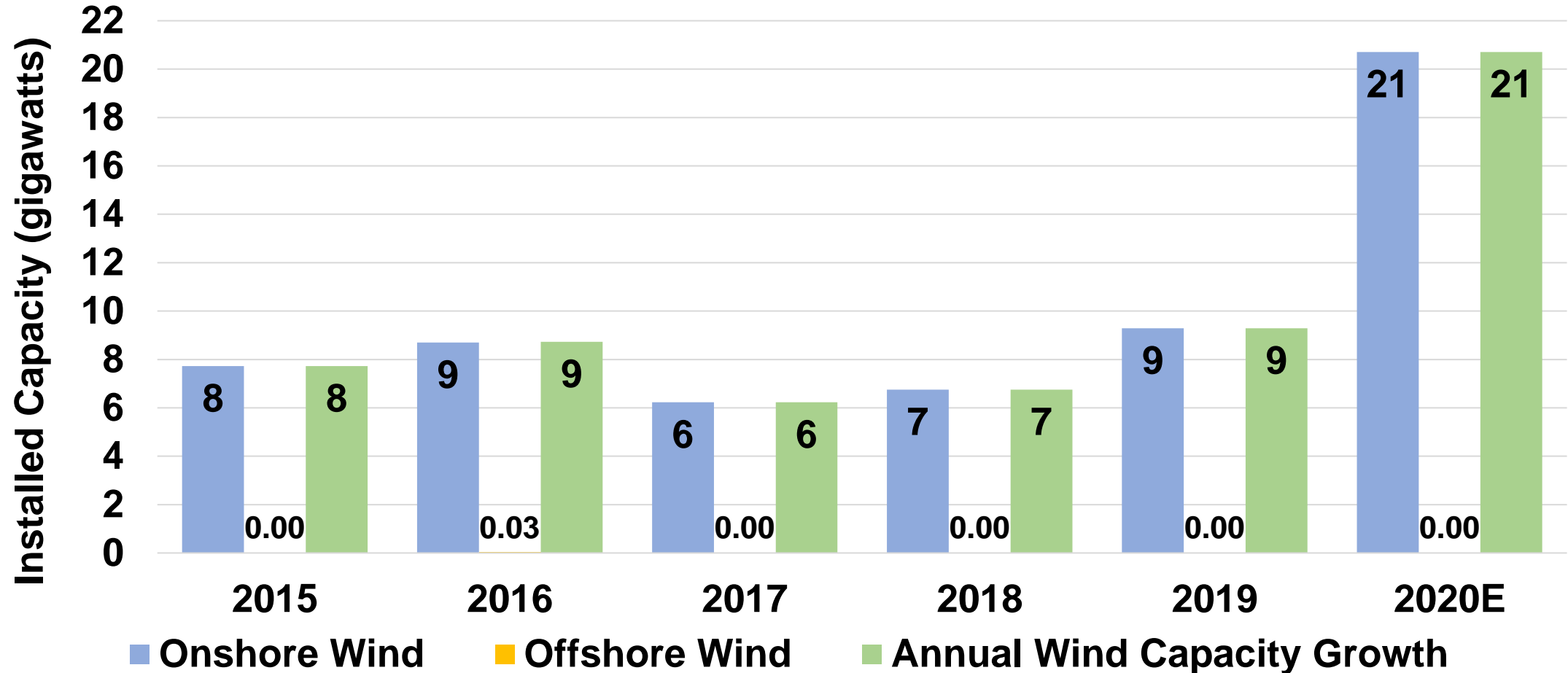
Wind Installed Capacity – 2020 Forecast

Wind Onshore, Wind Offshore and Total Wind



Annual Growth – Wind Installed Capacity – 2020 Forecast

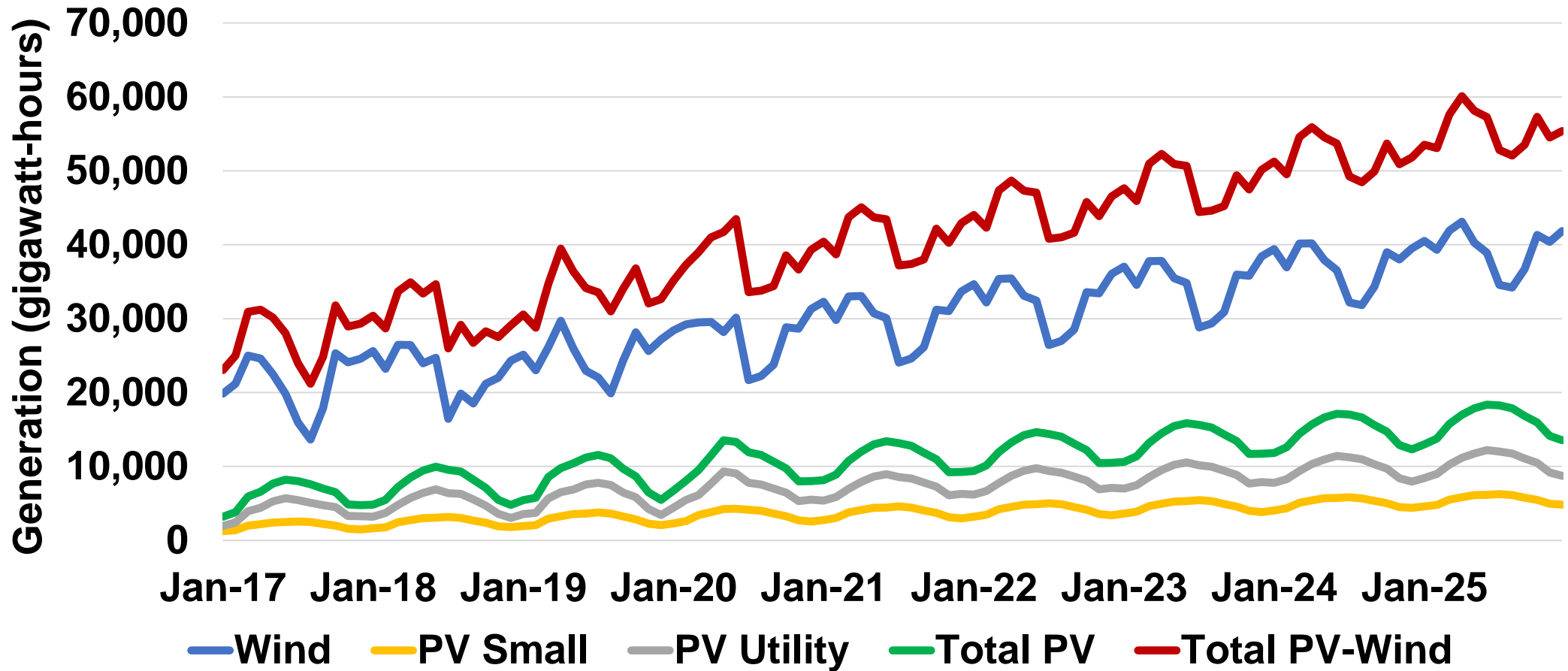
Wind Onshore, Wind Offshore and Total Wind





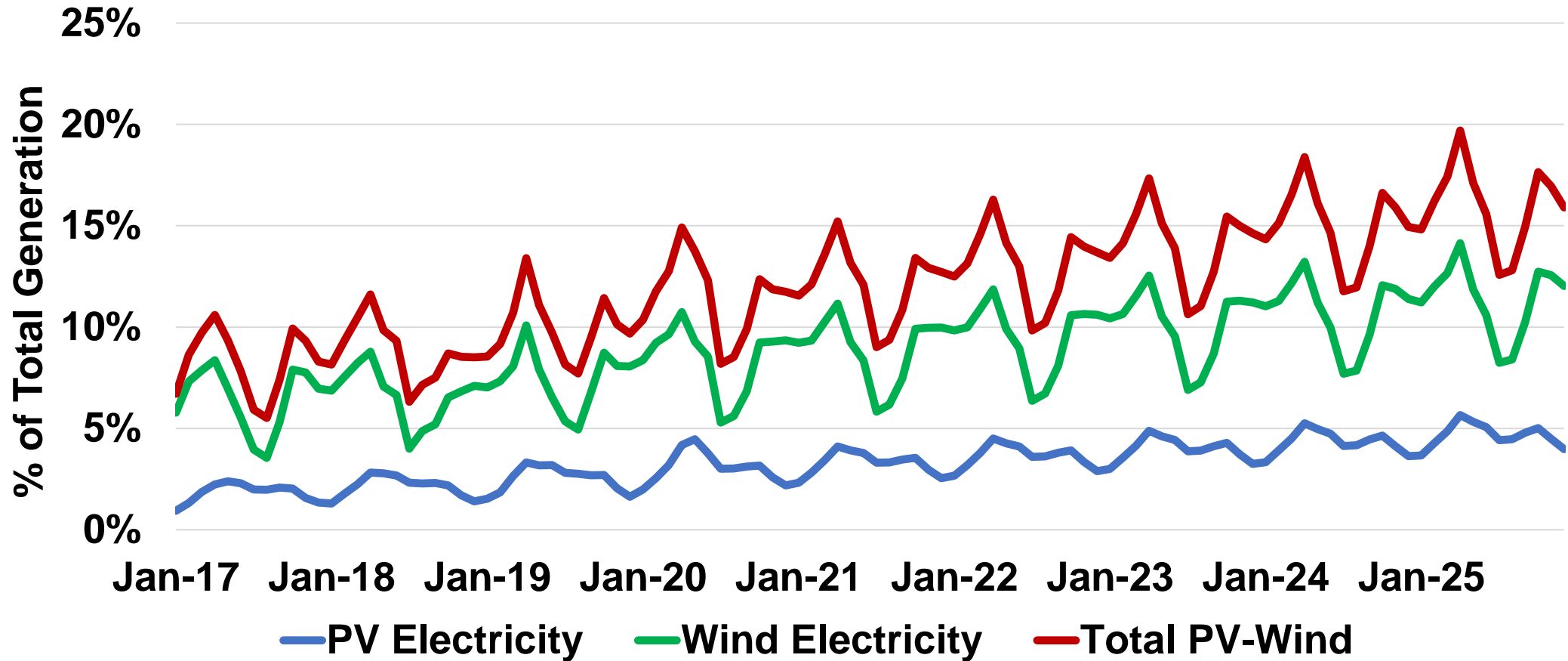
U.S. PV and Wind Electricity Supply

U.S. PV & Wind Electricity Generation Actual through June 2020; Forecast through Dec. 2025



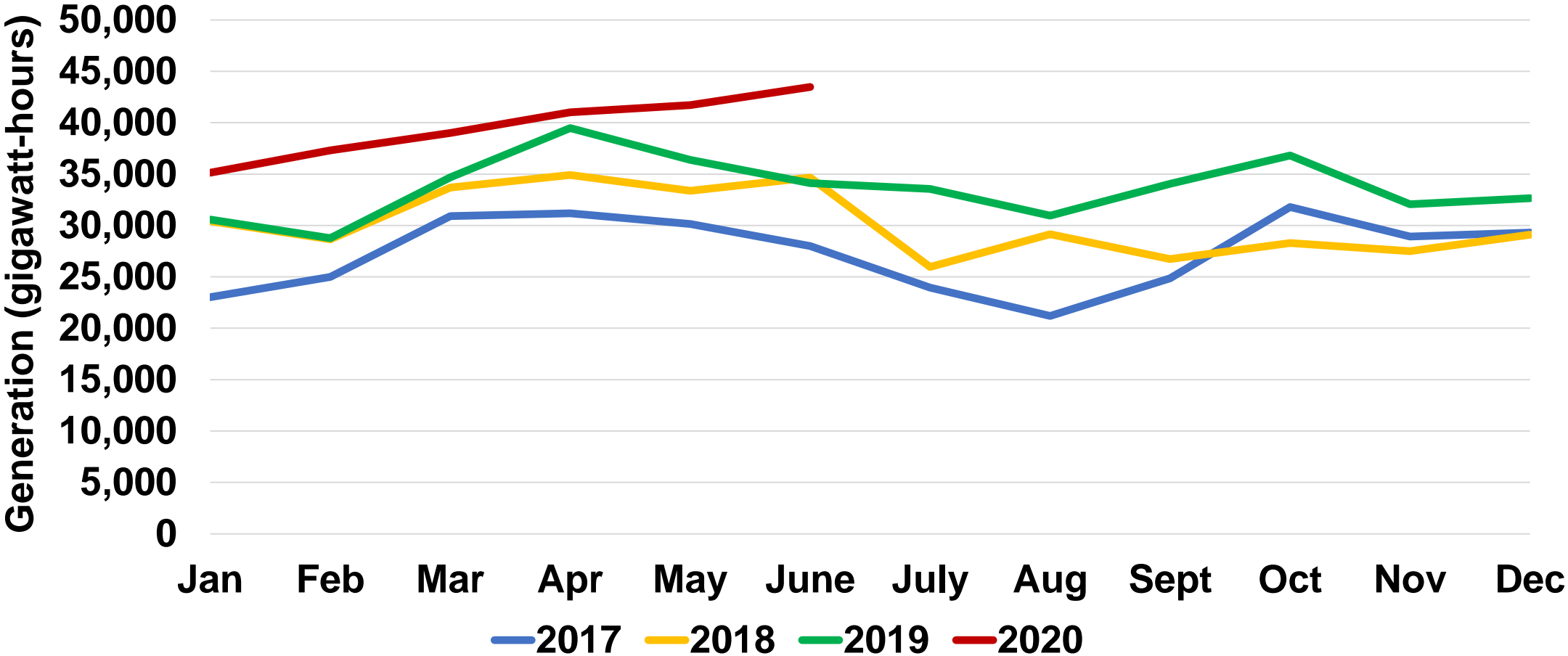
Note: PV Small is less than 1.0 MW; PV Utility is 1.0 MW and greater

U.S. PV & Wind Electricity as % of Total Generation Actual through June 2020; Forecast through Dec. 2025

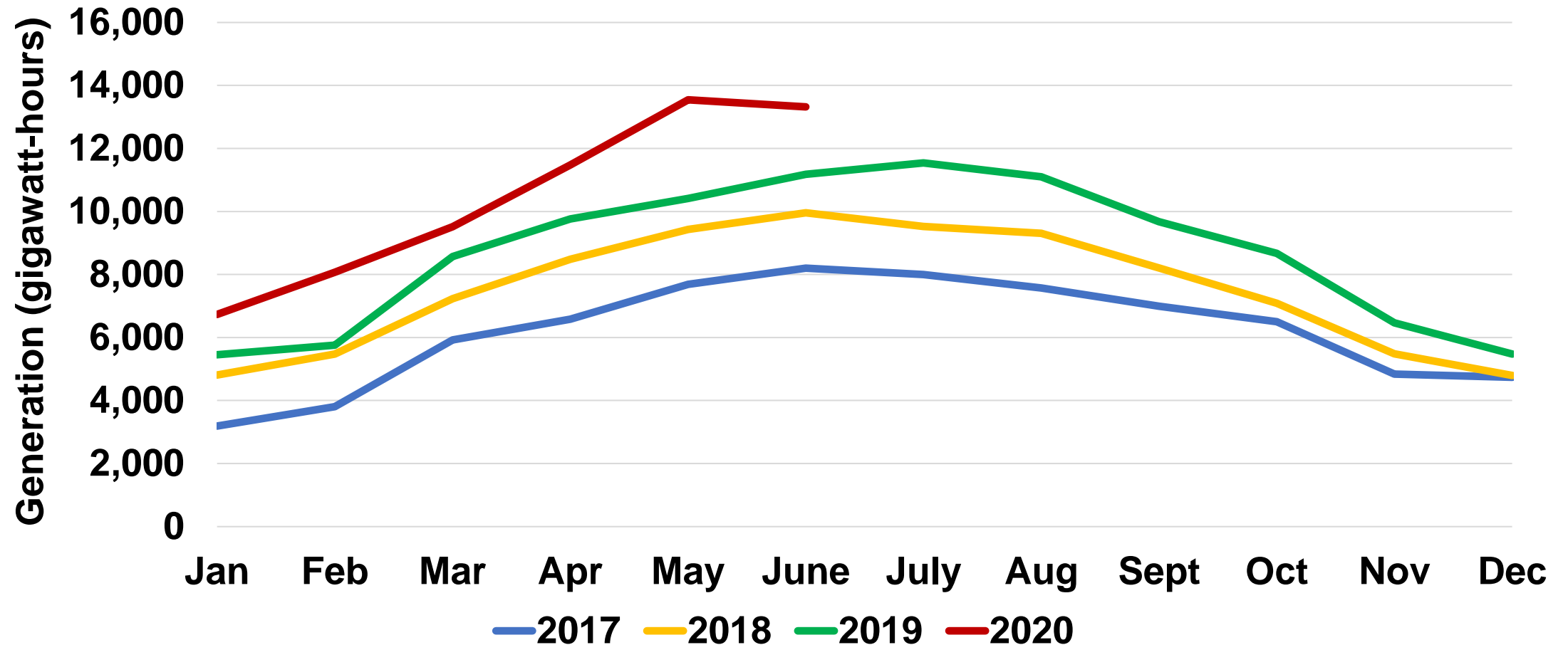


Note: Fossil fuel electricity generation was 62% of total 2019 electricity generation.

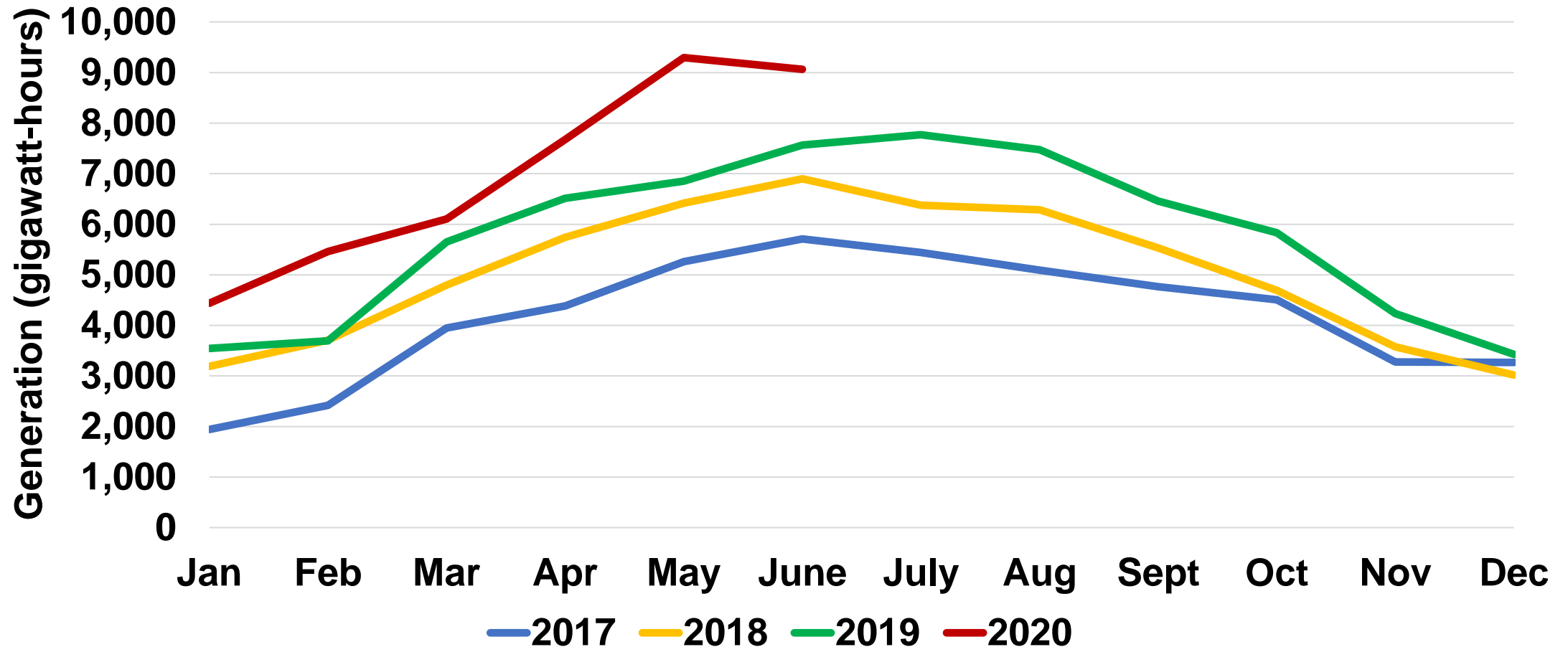
PV & Wind Electricity Generation Year-on-Year (through June 2020)



PV Electricity Generation Year-on-Year (through June 2020)

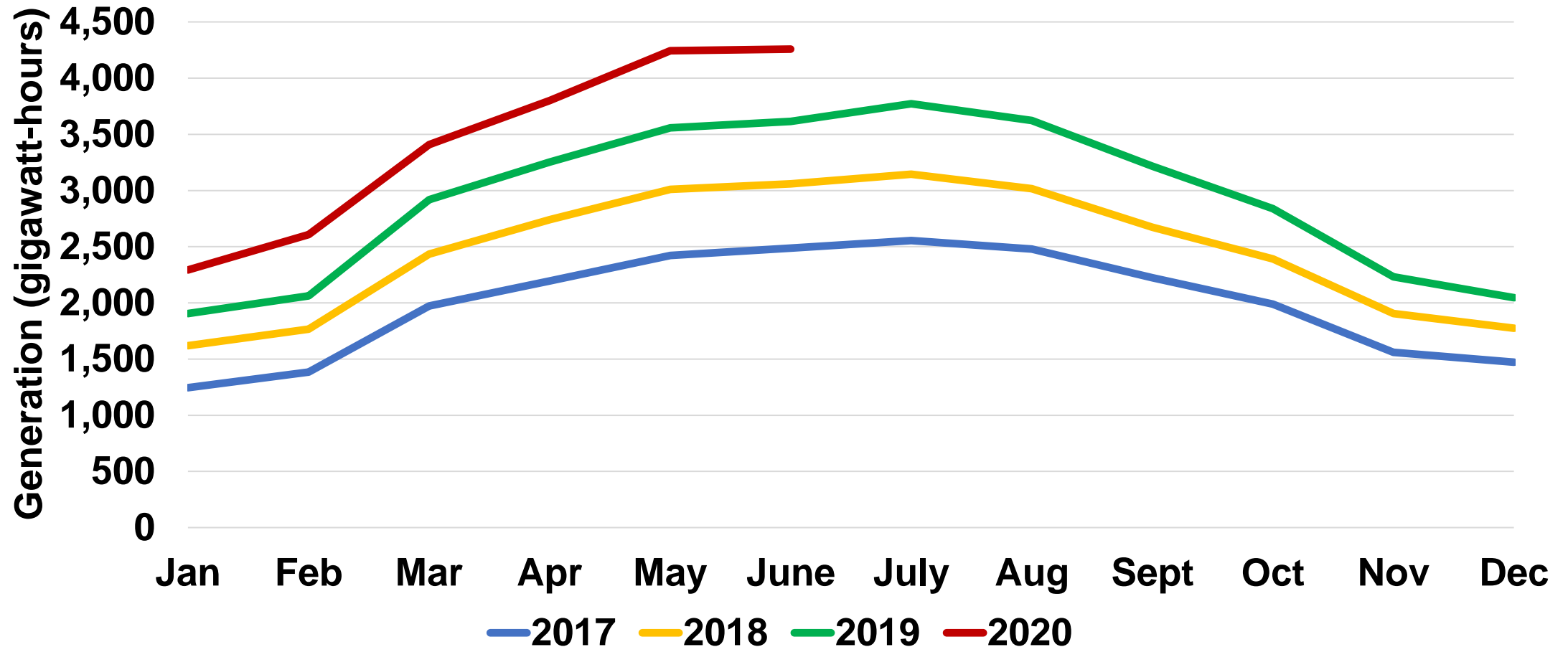


Utility PV Electricity Generation Year-on-Year (through June 2020)



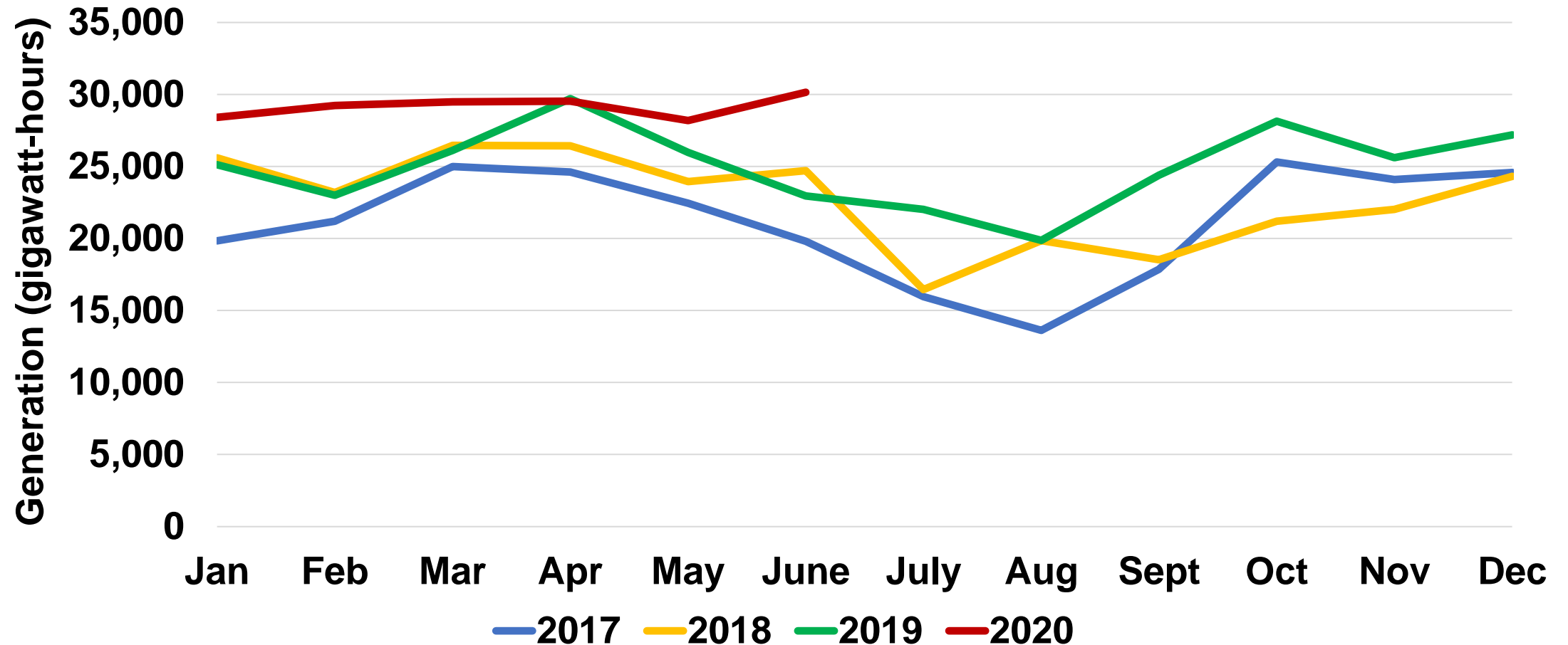
Note: PV Utility is greater than 1.0 MW

Small PV Electricity Generation Year-on-Year (through June 2020)

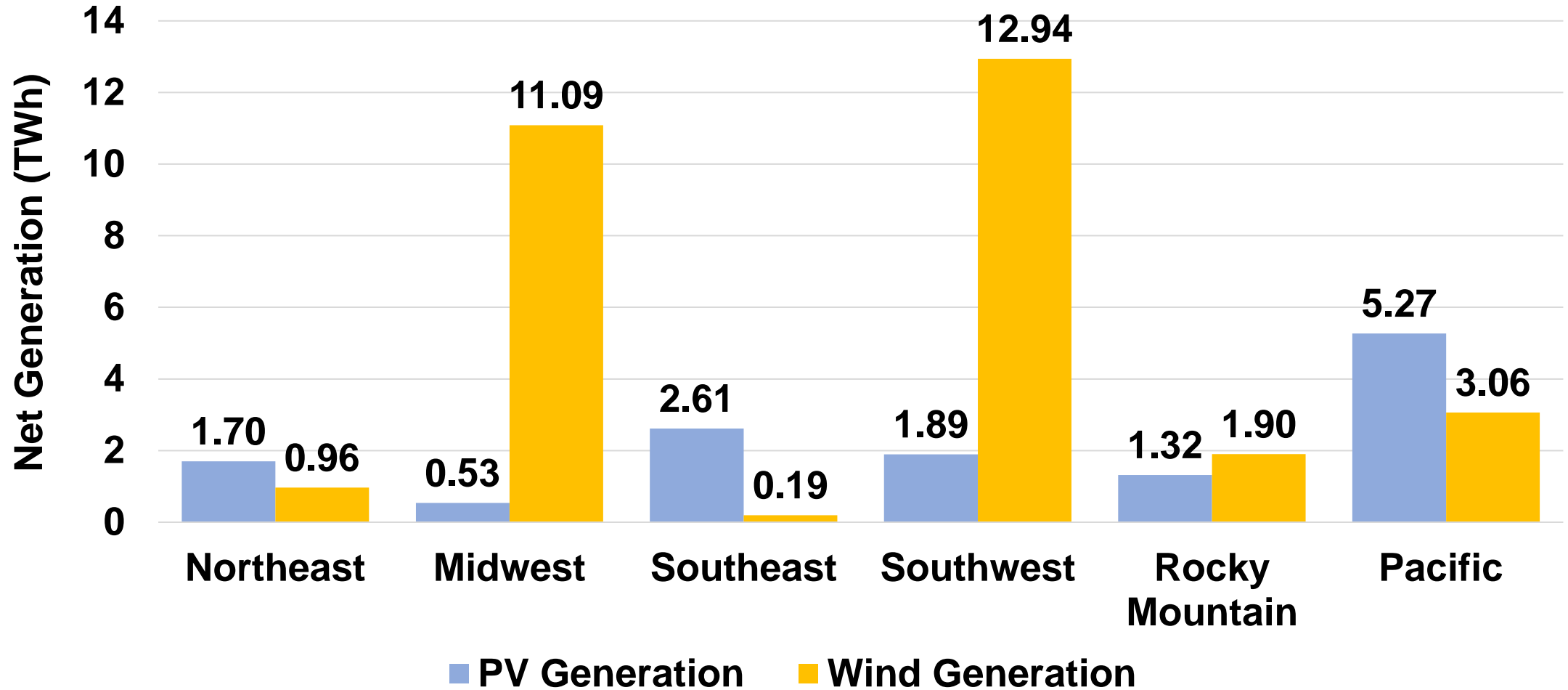


Note: PV Small is less than 1.0 MW

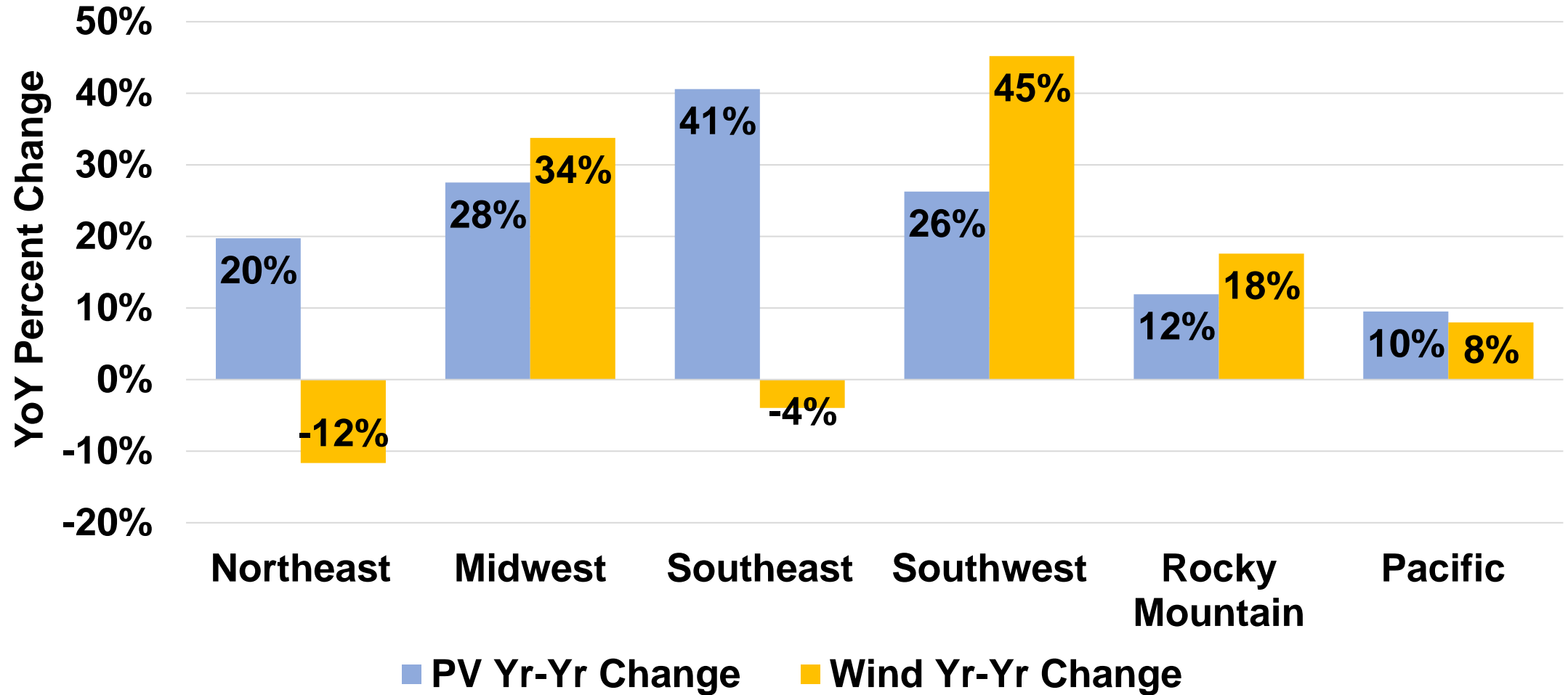
Wind Electricity Generation Year-on-Year (through June 2020)



Regional PV & Wind Electricity Generation June 2020



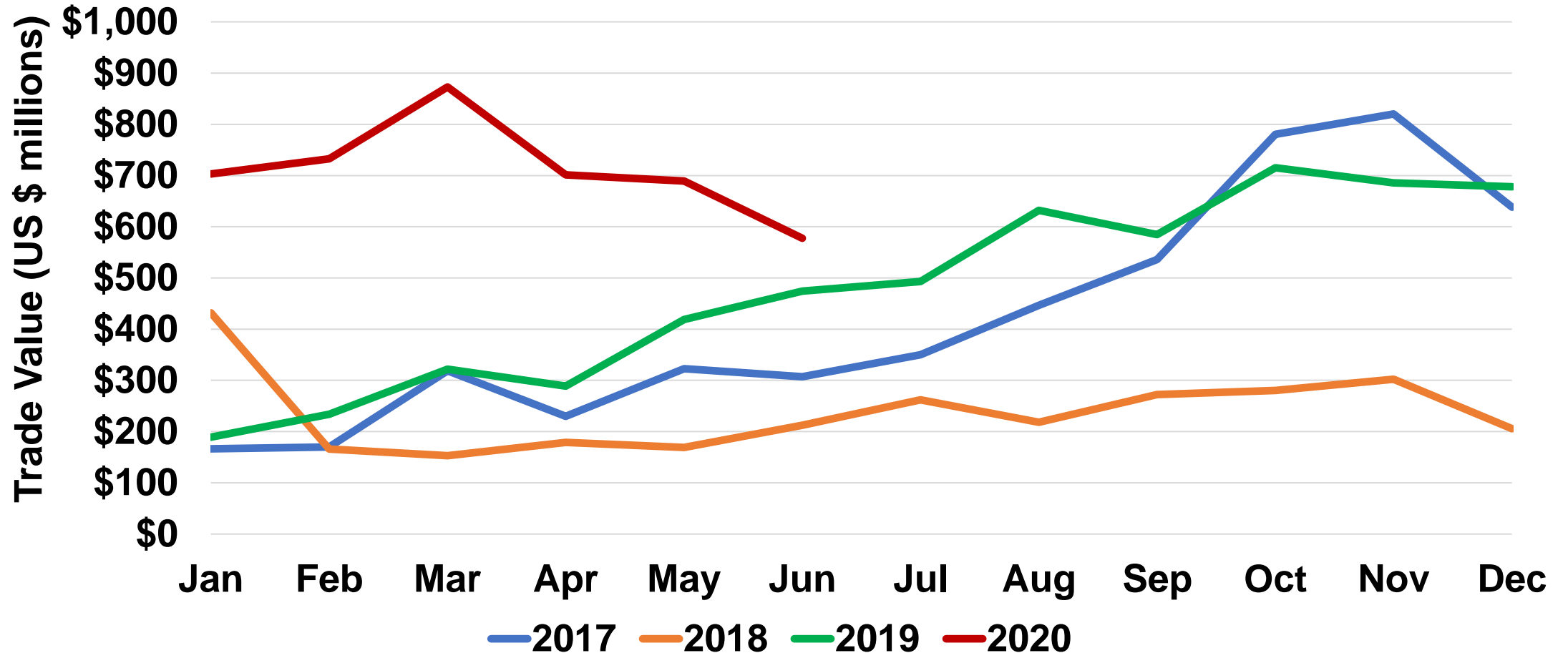
Regional PV & Wind Electricity Generation Year-on-Year Change (June 2019 – June 2020)



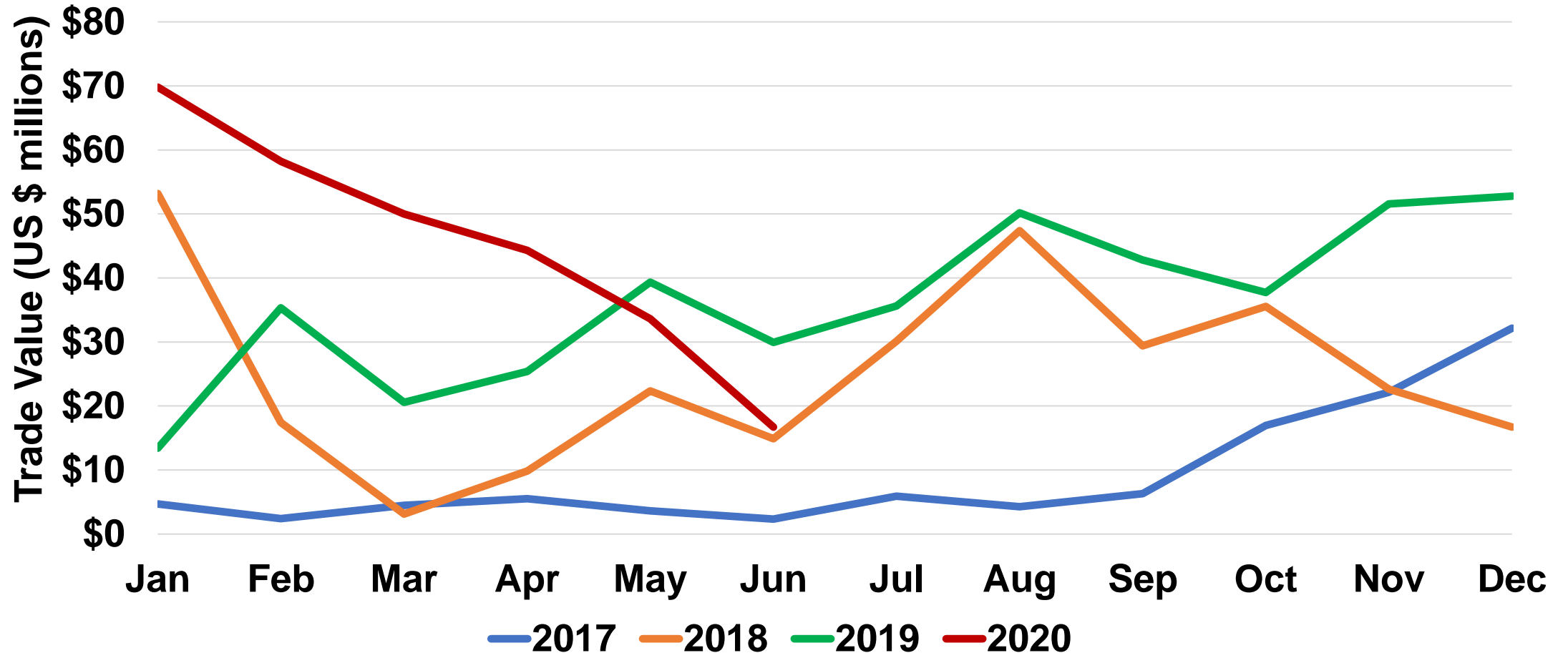


U.S. PV Trade (Cells and Panels)

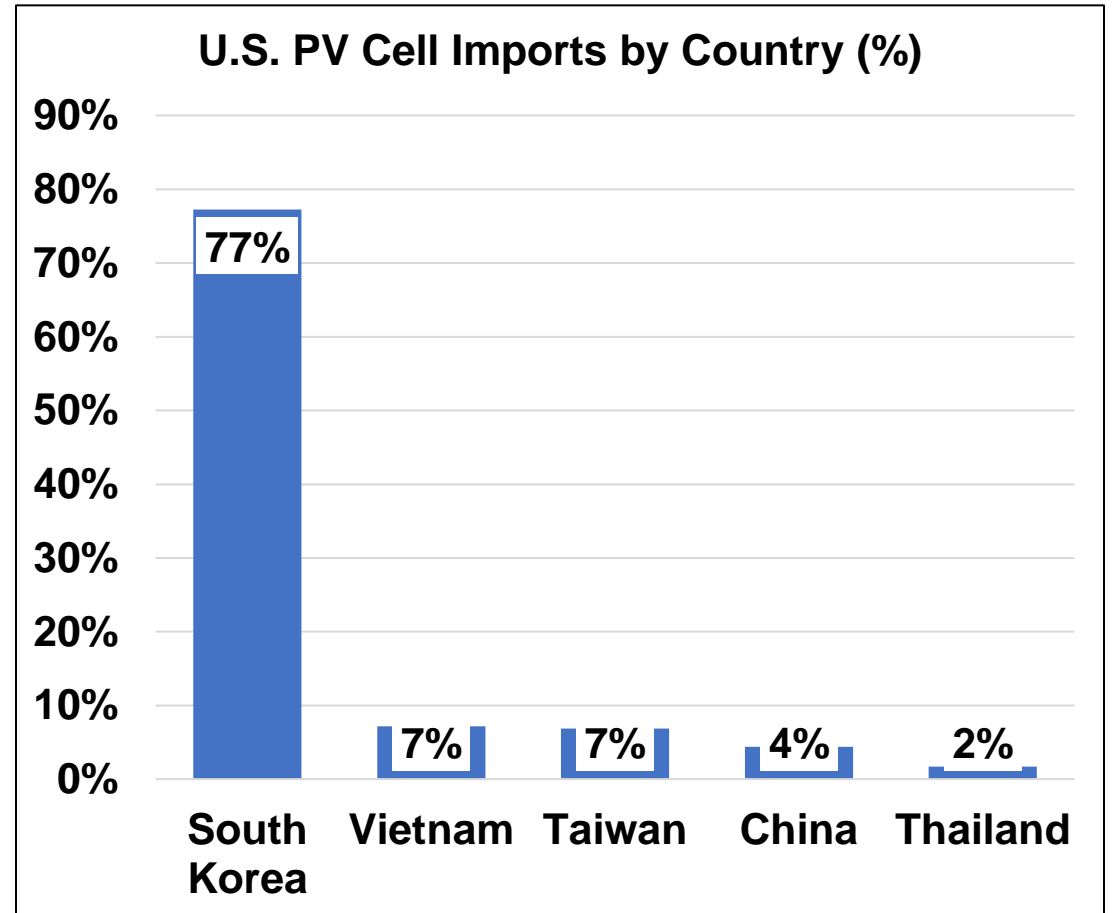
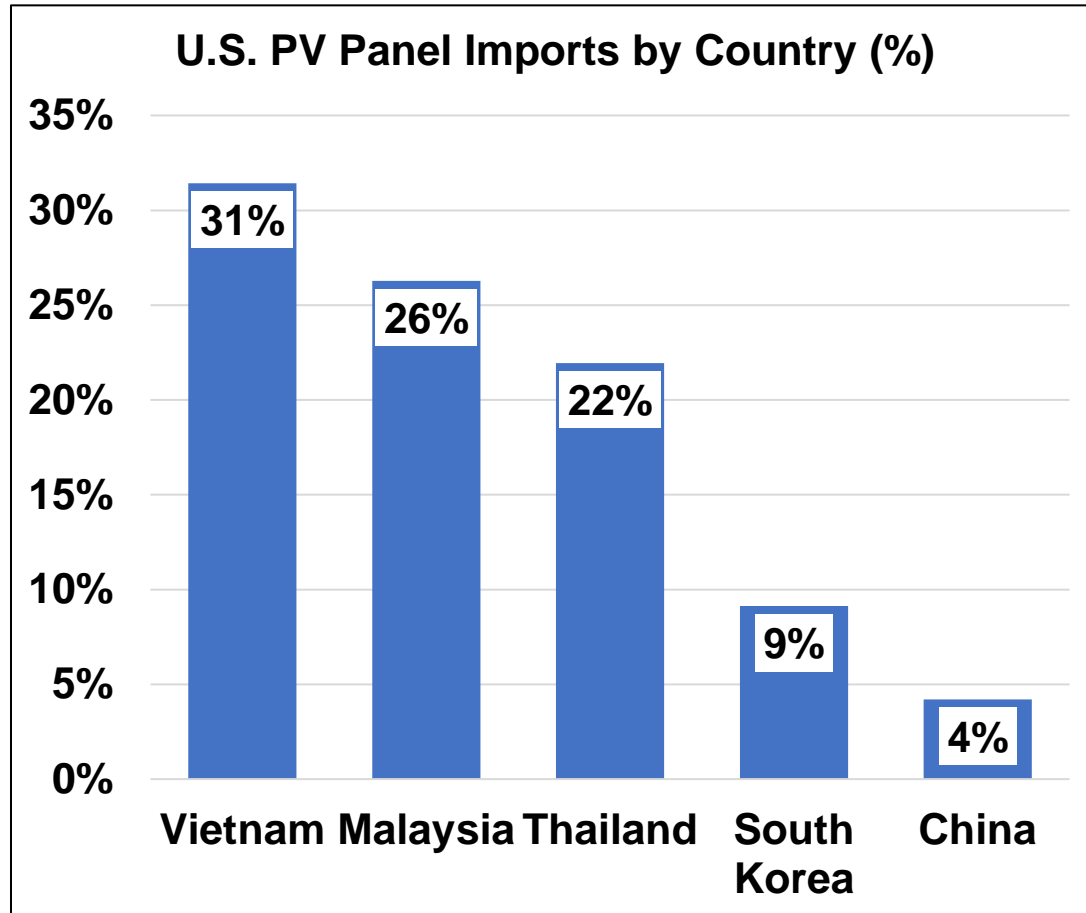
U.S. Year-on-Year PV Panel Imports Year-on-Year (through June 2020)



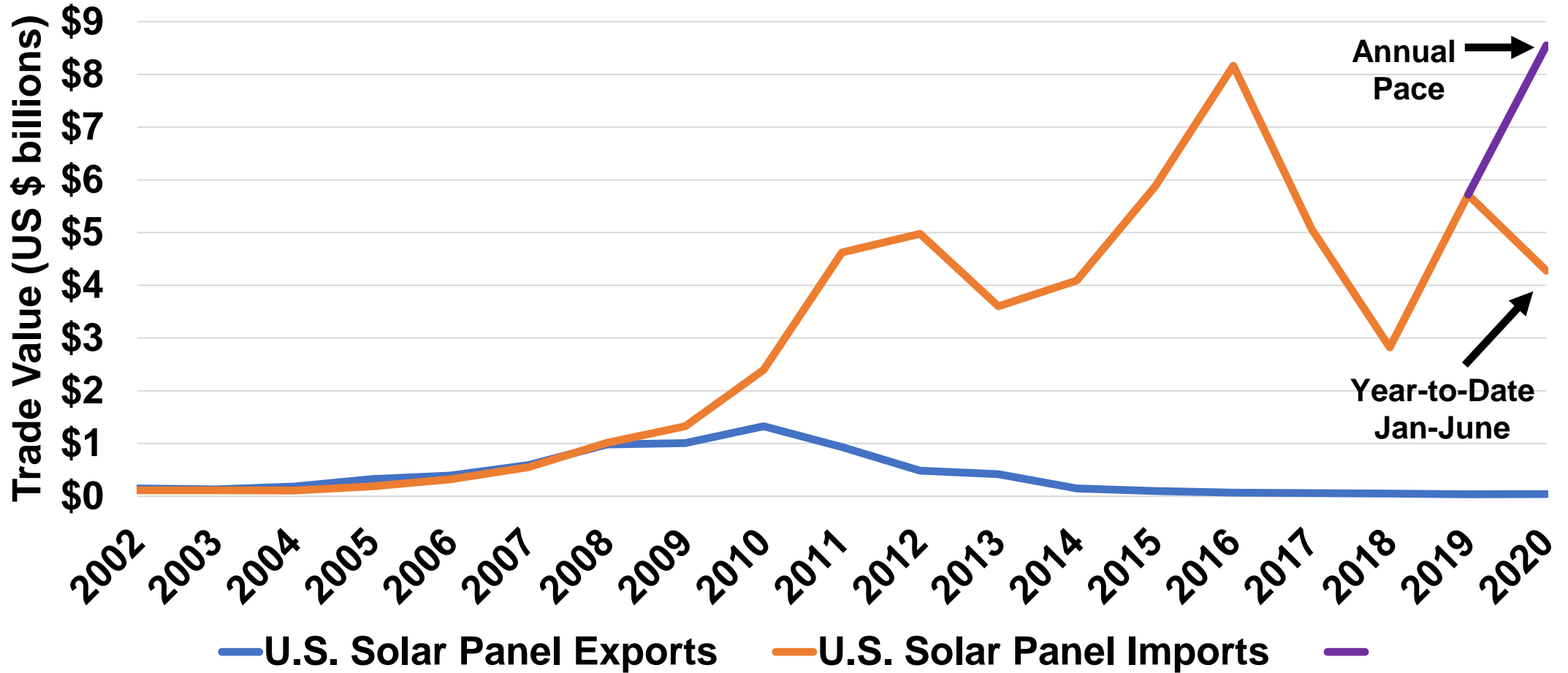
U.S. Year-on-Year PV Cell Imports Year-on-Year (through June 2020)



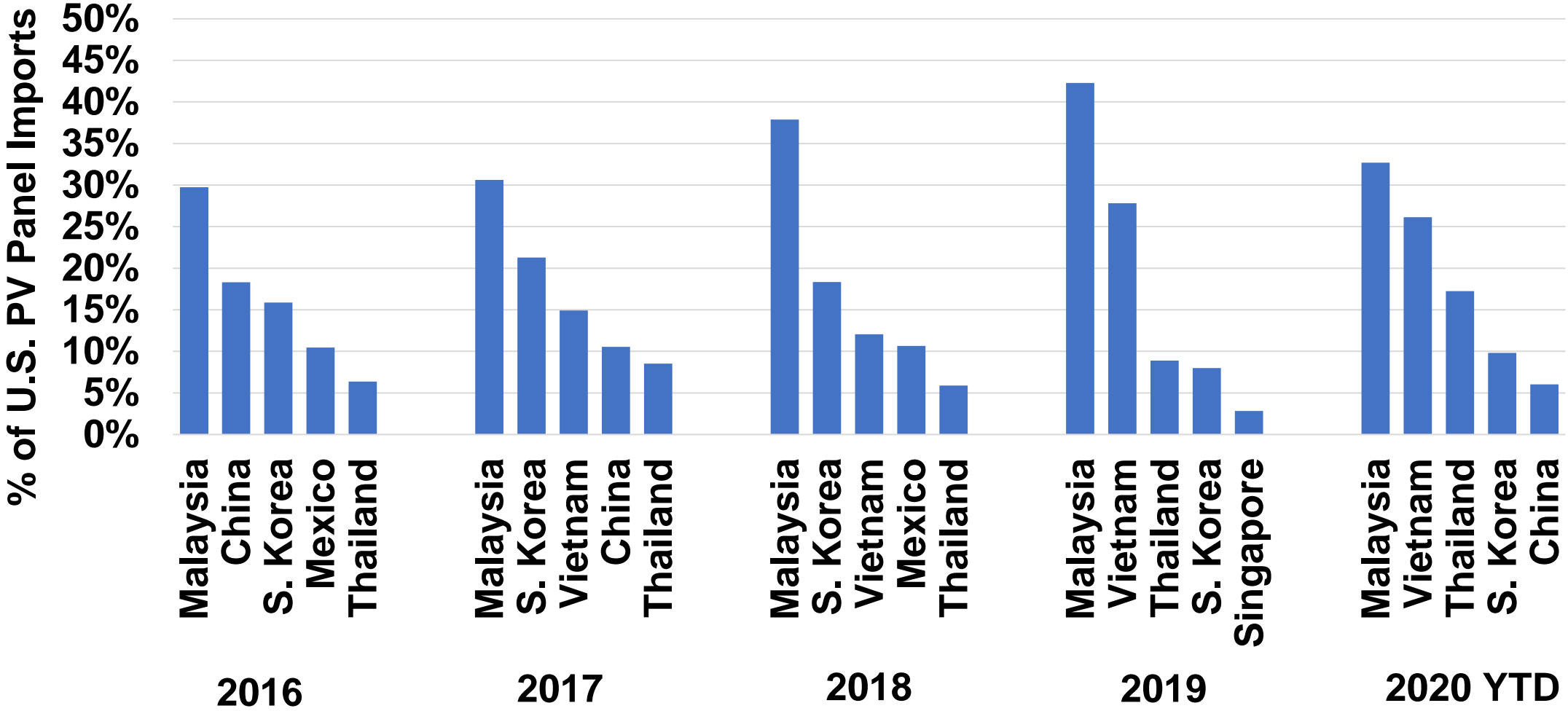
U.S. PV Panel and Cell Imports by Country June 2020



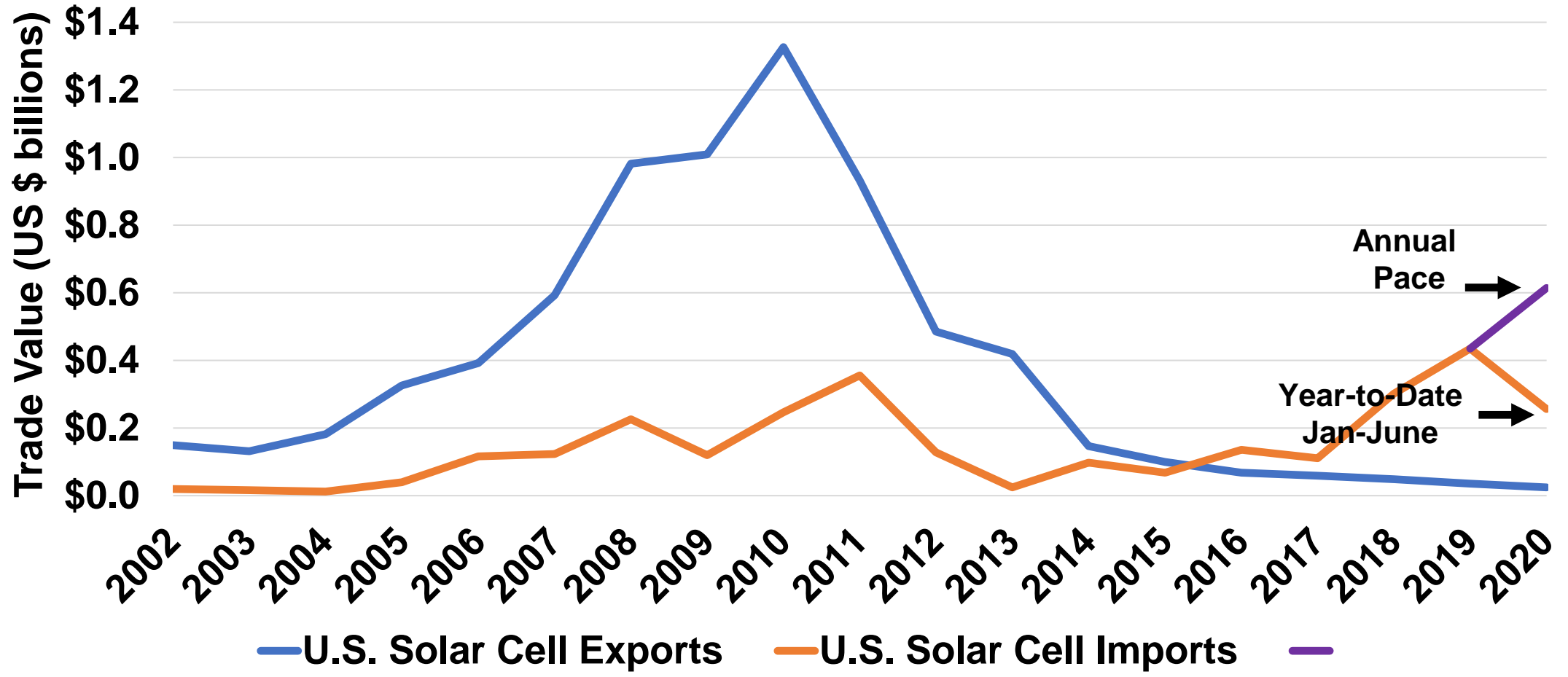
U.S. Annual PV Panel Trade



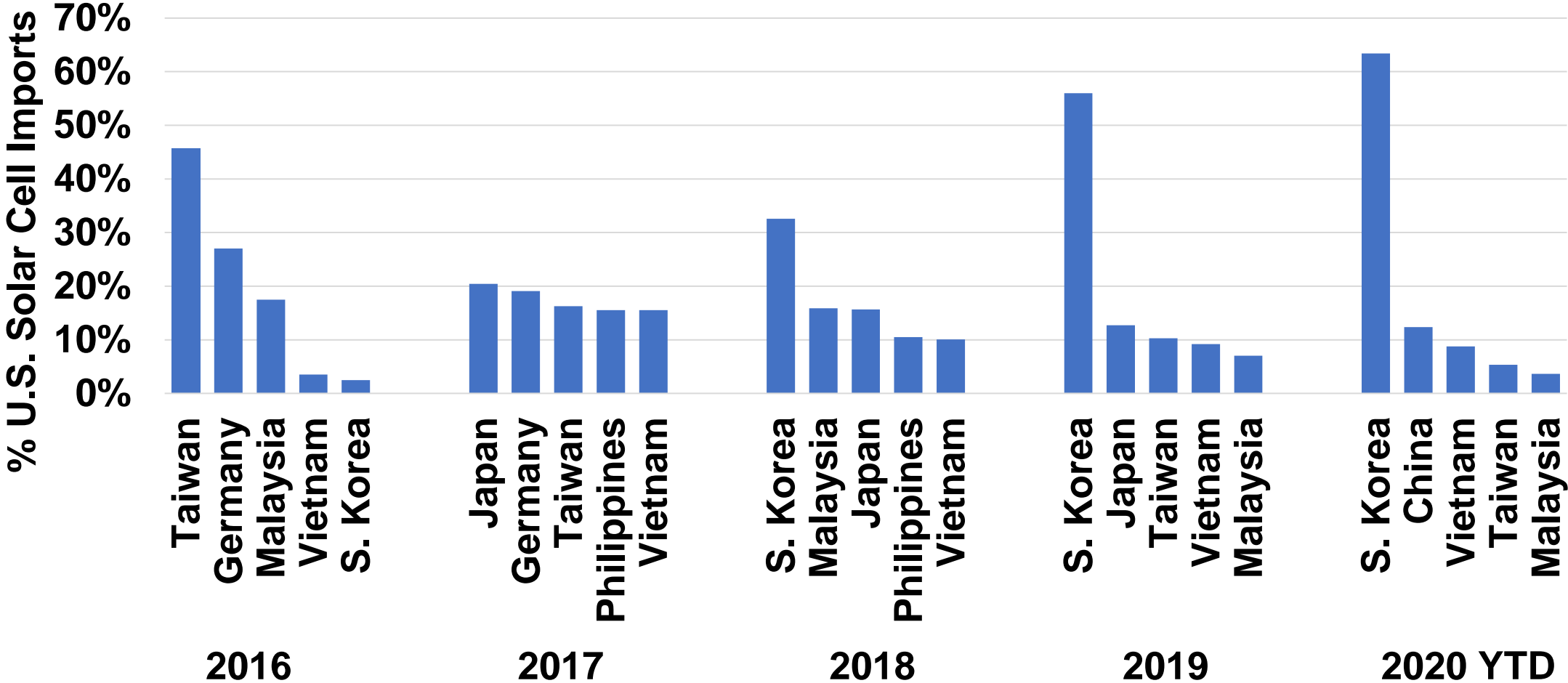
U.S. PV Panel Imports Rank Order of Countries 2020 through June



U.S. Annual PV Cell Trade



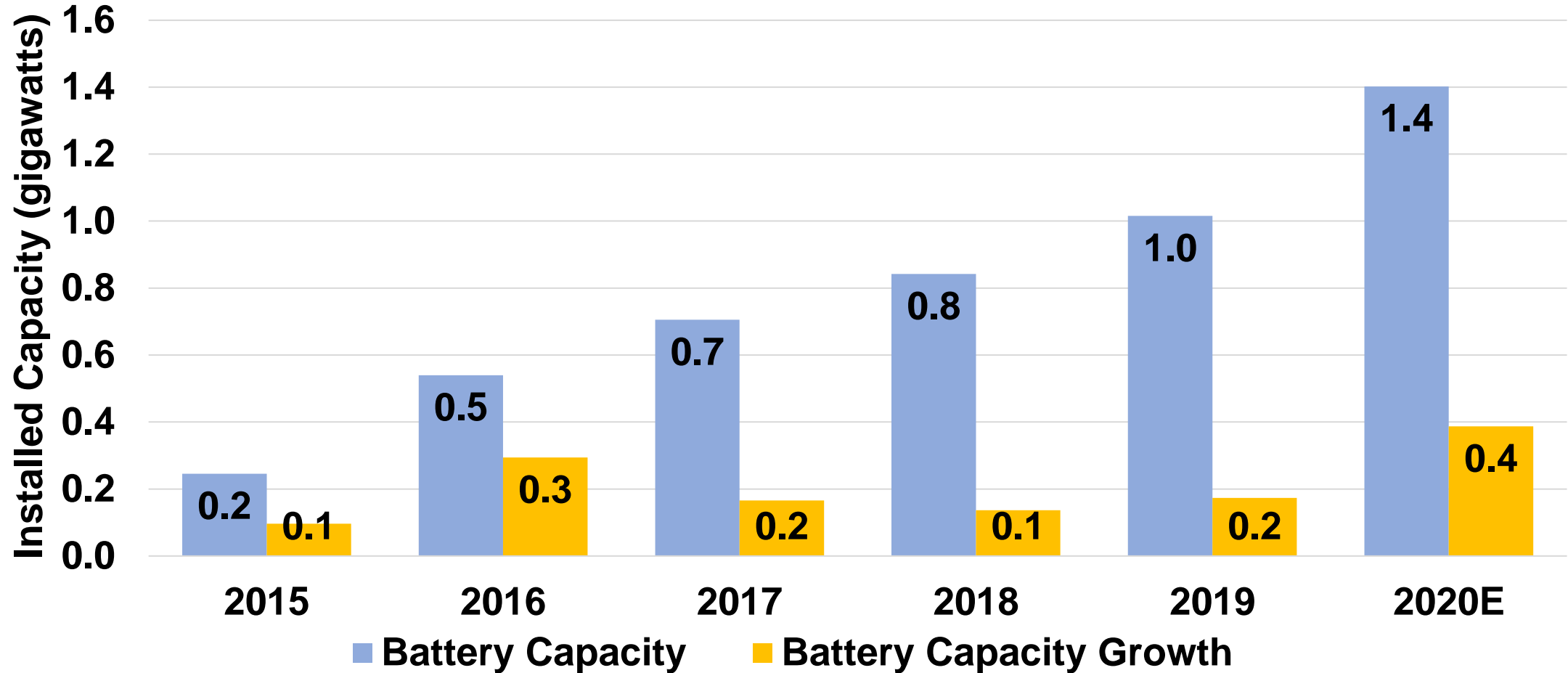
U.S. PV Cell Imports Rank Order of Countries 2020 through June



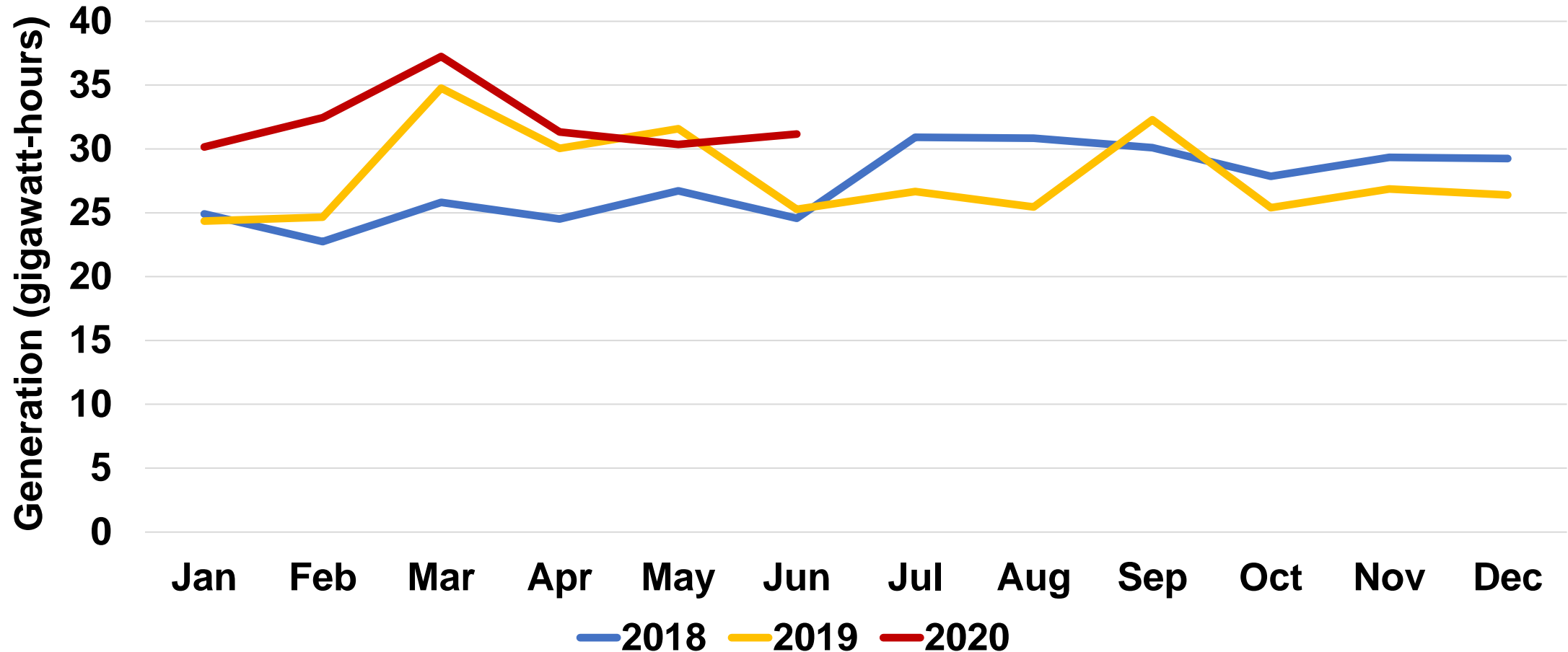


U.S. Battery Storage

Battery Storage Capacity and Growth – 2020 Forecast



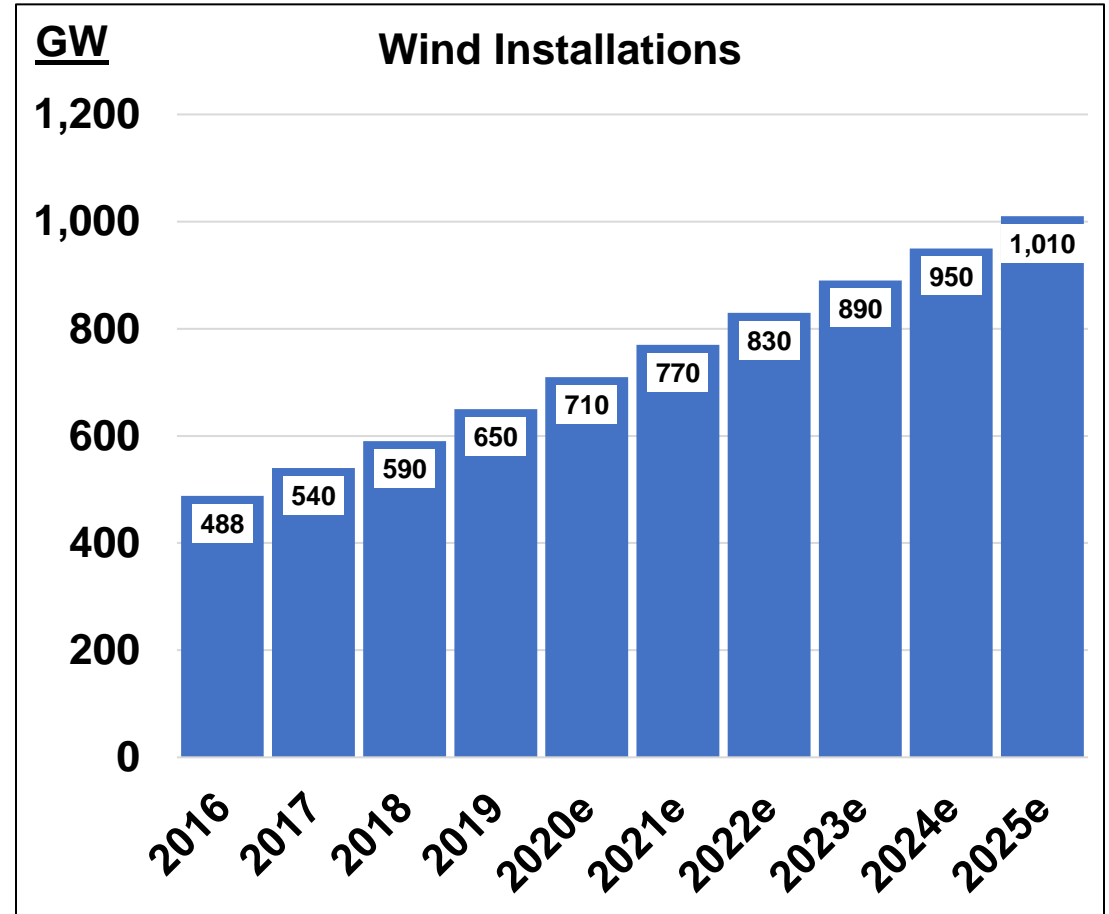
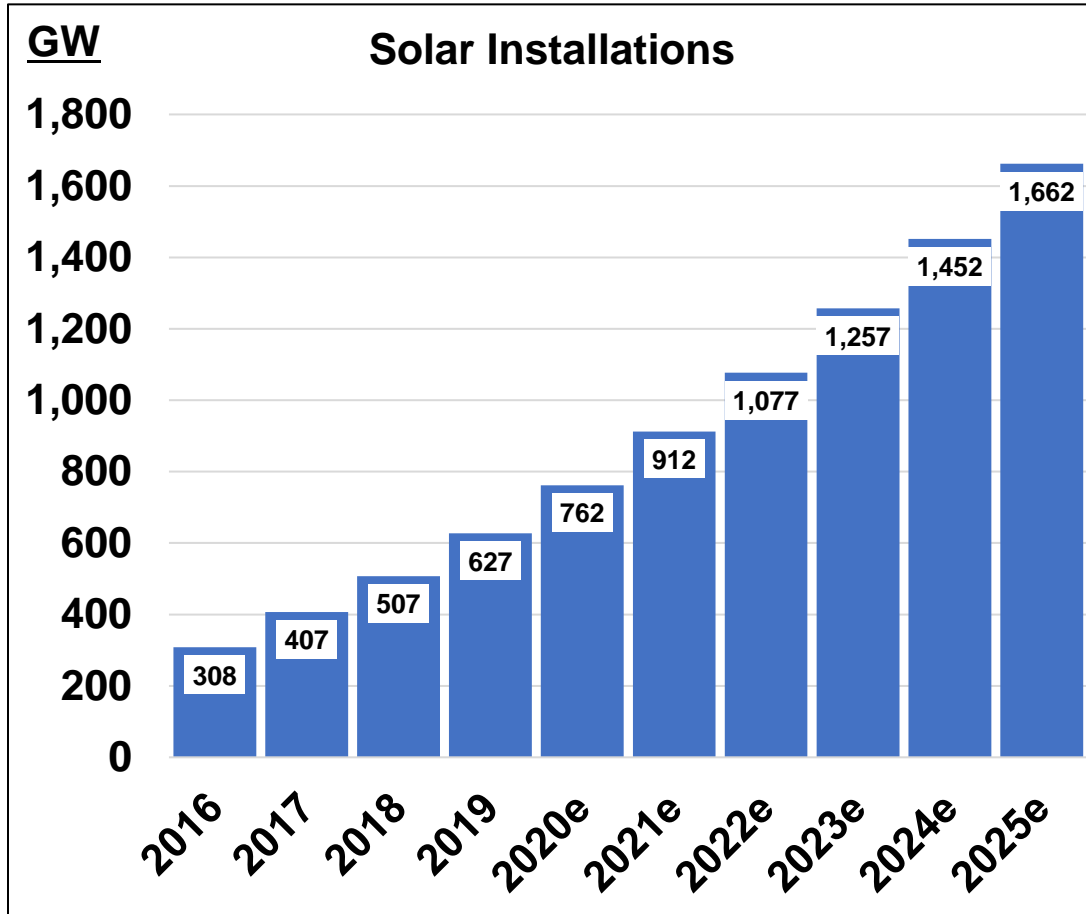
Battery Stored Electricity Generation Year-on-Year (through June 2020)



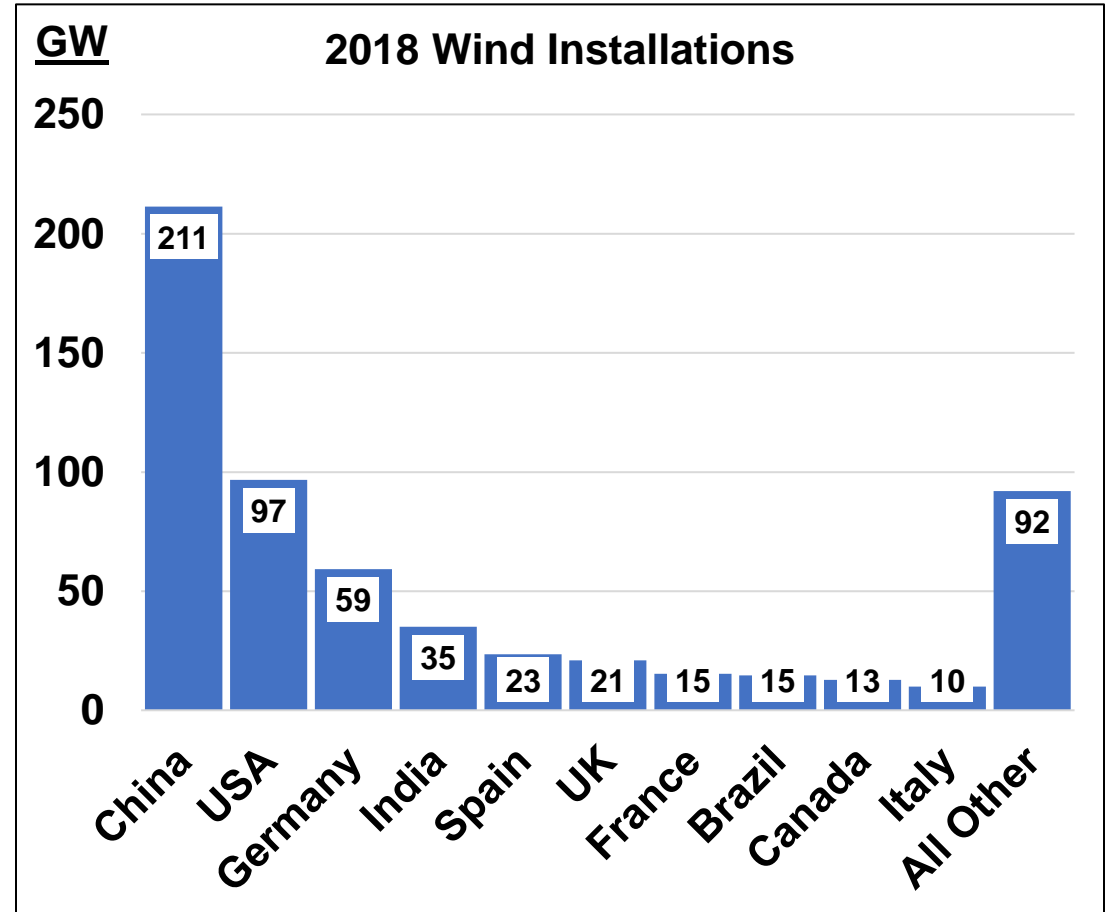
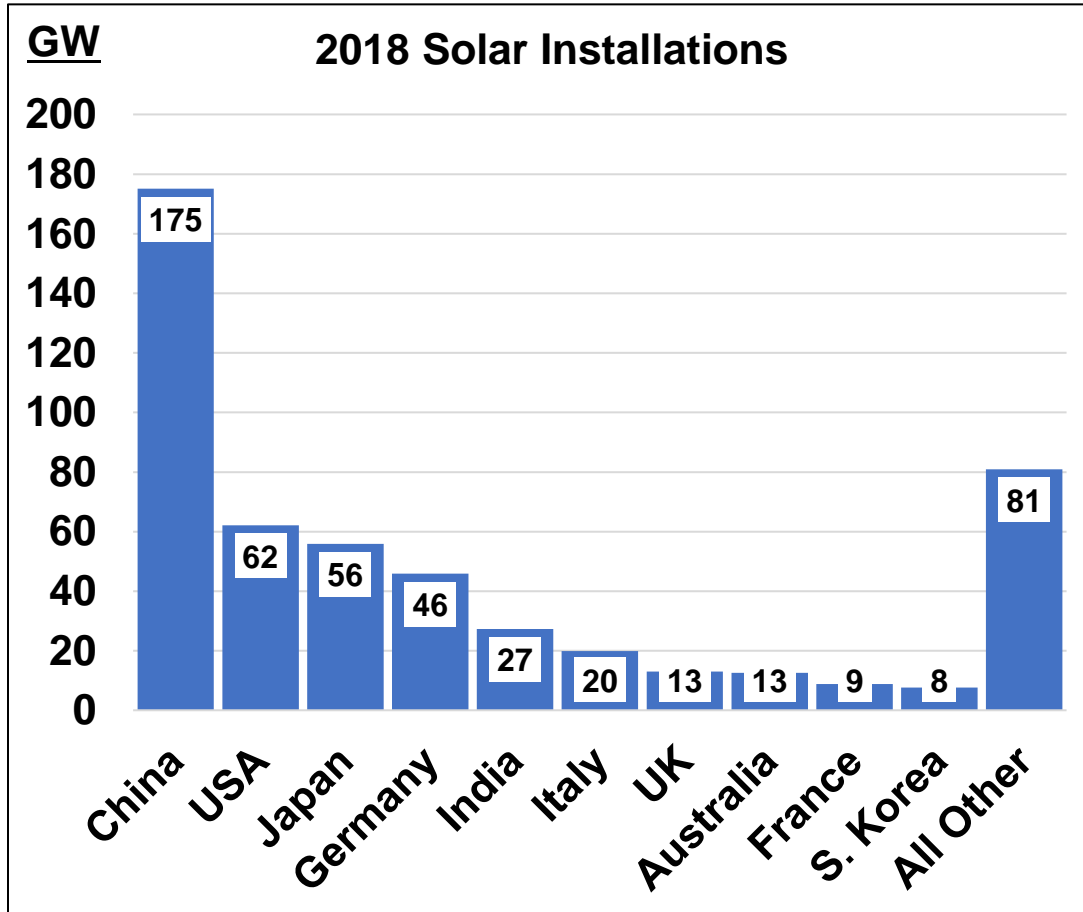


Global Solar and Wind

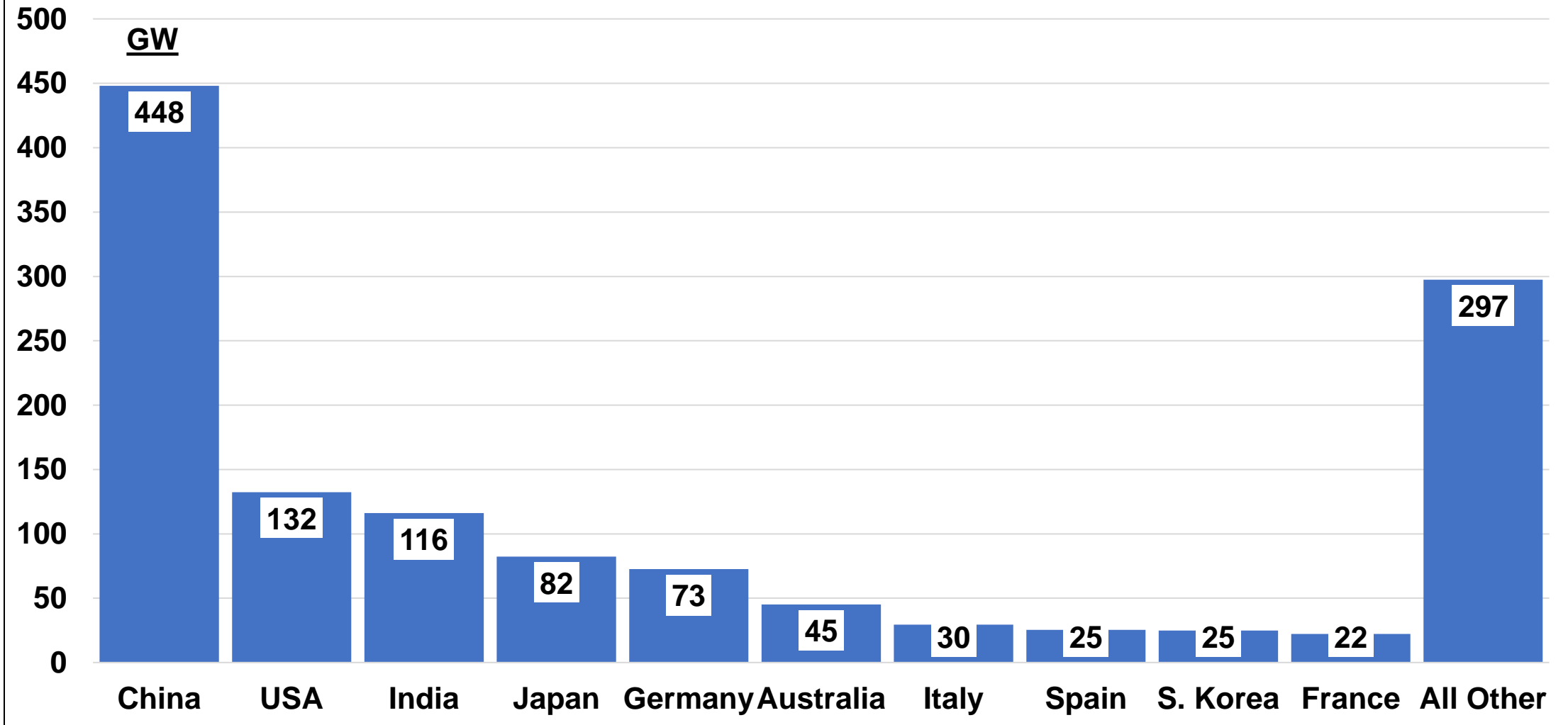
World Cumulative Solar and Wind Installations



2018 Cumulative Solar and Wind Installations by Country



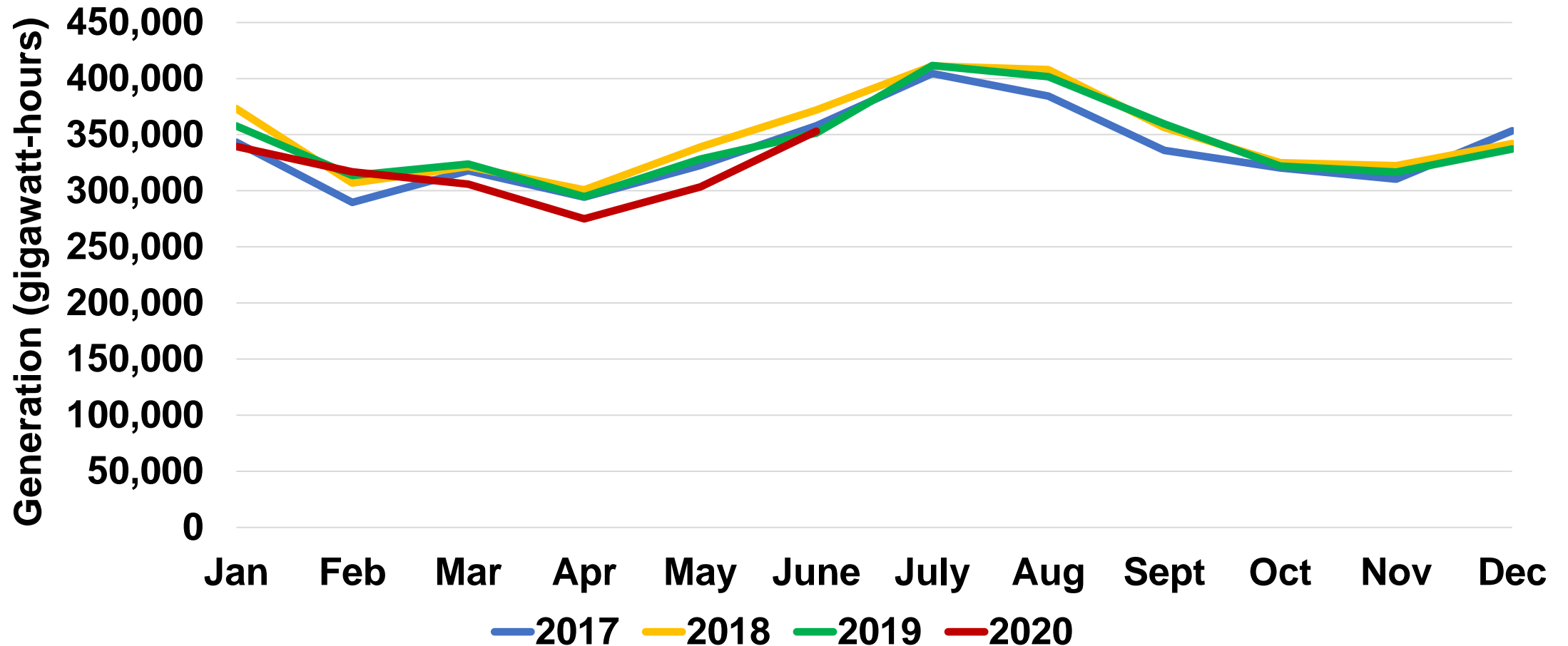
2023 Forecast Cumulative Solar Installations by Country



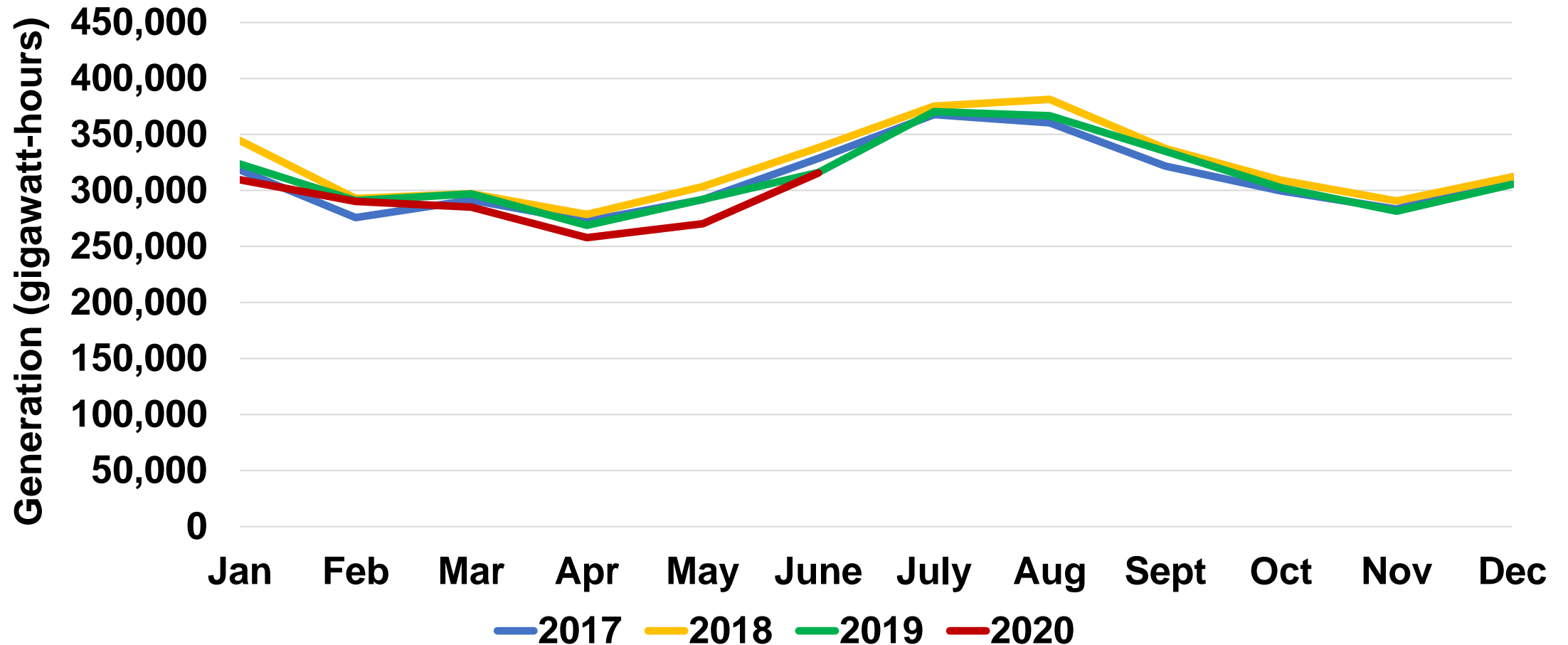
U.S. Electricity Market Overview

Monthly Electricity Supply, Demand and Prices
Electricity and Energy CO₂ Emissions
TAN, FAN and SPY Stock Prices

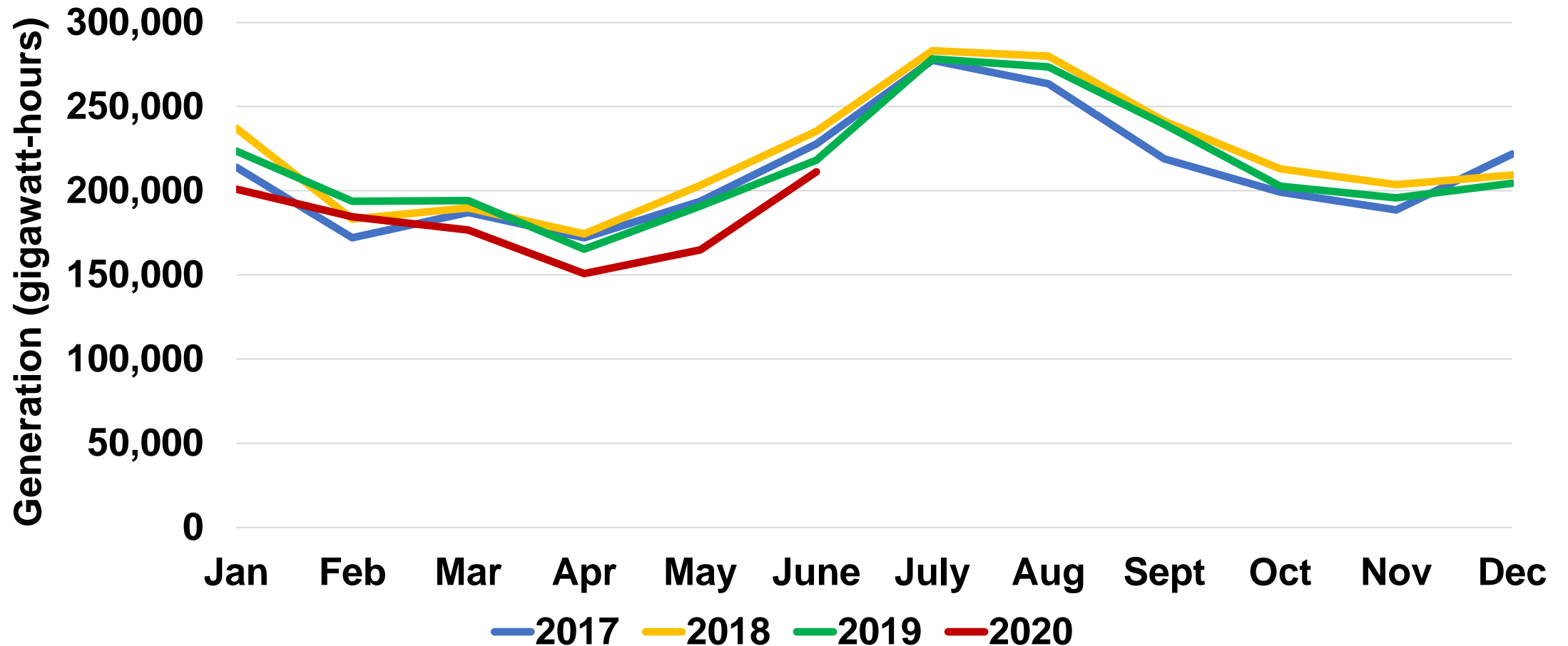
U.S. Total Electricity Supply (Generation) Year-on-Year (through June 2020)



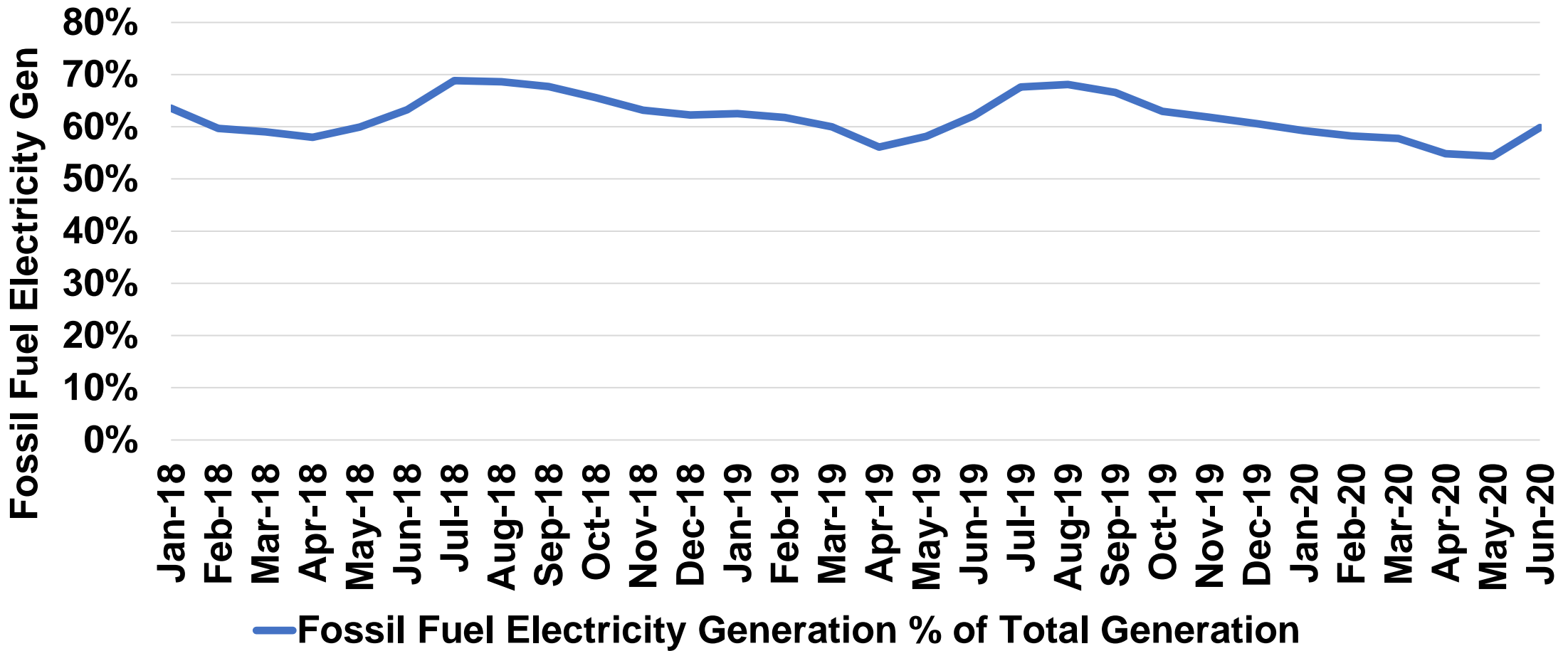
U.S. Total Electricity Demand (Retail Sales) Year-on-Year (through June 2020)



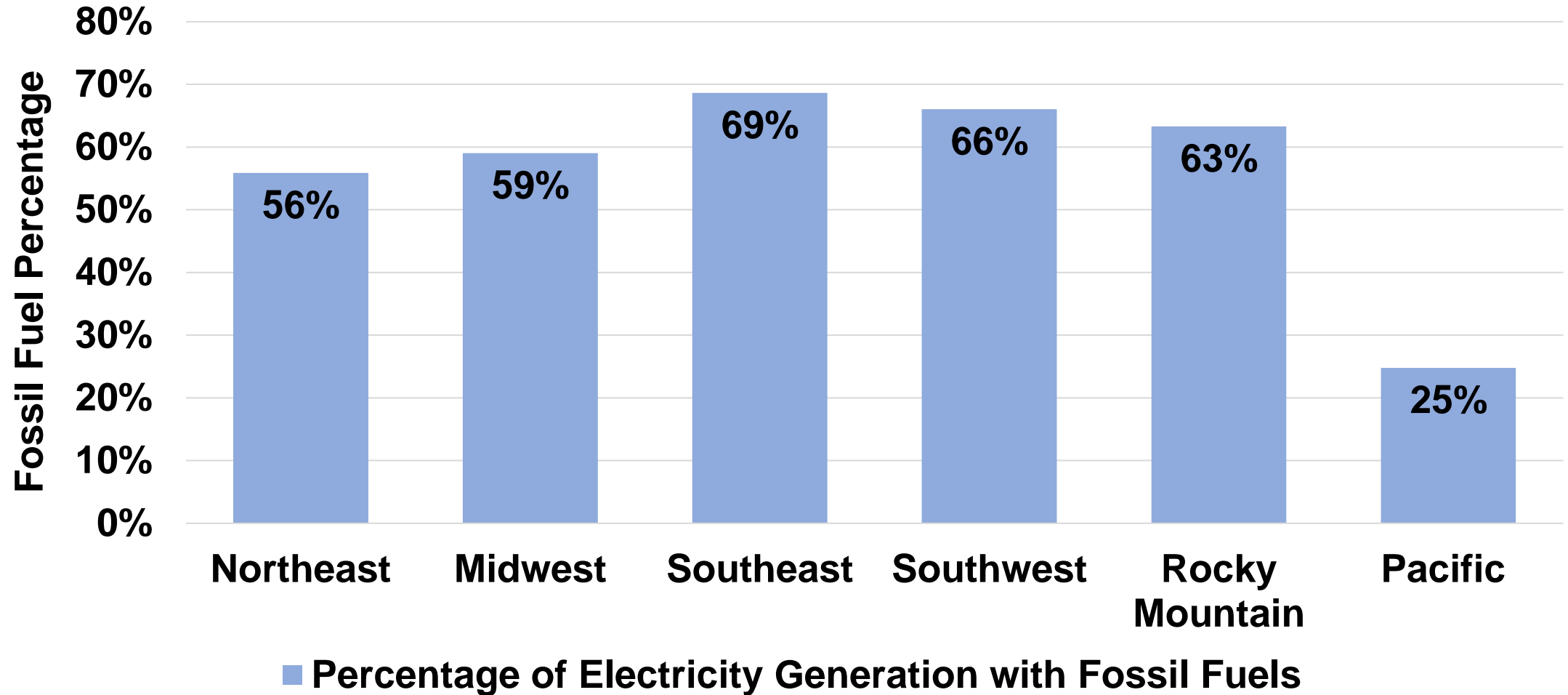
U.S. Fossil Fuel Electricity Generation Year-on-Year (through June 2020)



U.S. Fossil Fuel Electricity Generation % of Total Generation



Regional Electricity Generation from Fossil Fuels June 2020

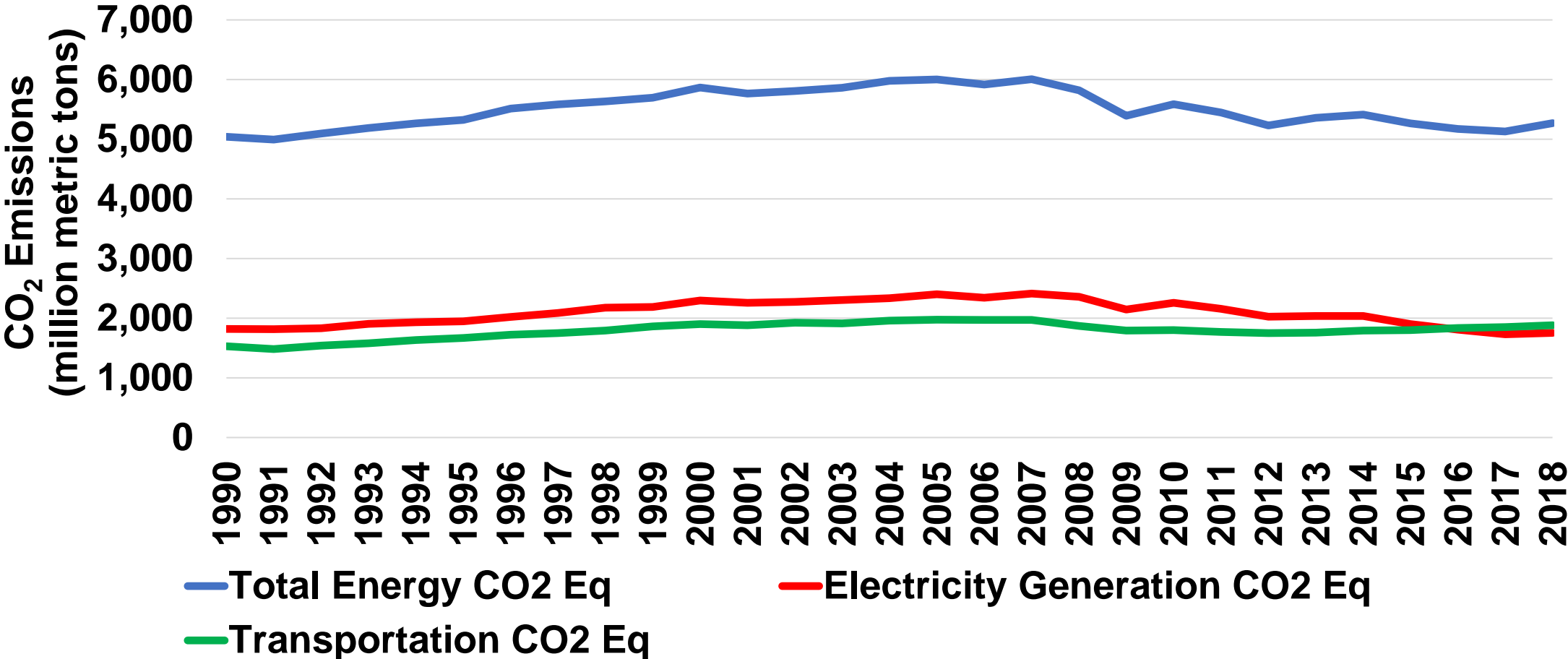


U.S. Electric Power Industry Fossil Fuel Consumption June 2020



	Coal (Short Tons)	Natural Gas (Mcf)	Other Gases (Billion Btu)	Petroleum (Barrels)
Northeast	1,387,830	180,819,946	258	137,942
Midwest	15,054,600	133,892,363	942	648,142
Southeast	10,039,114	409,587,308	1,544	1,293,089
Southwest	6,595,951	248,545,654	1,506	41,130
Rocky Mountain	3,537,503	38,736,306	203	69,510
Pacific	91,414	55,731,067	813	989,880

U.S. Fossil Fuel CO₂ Equivalent Emissions

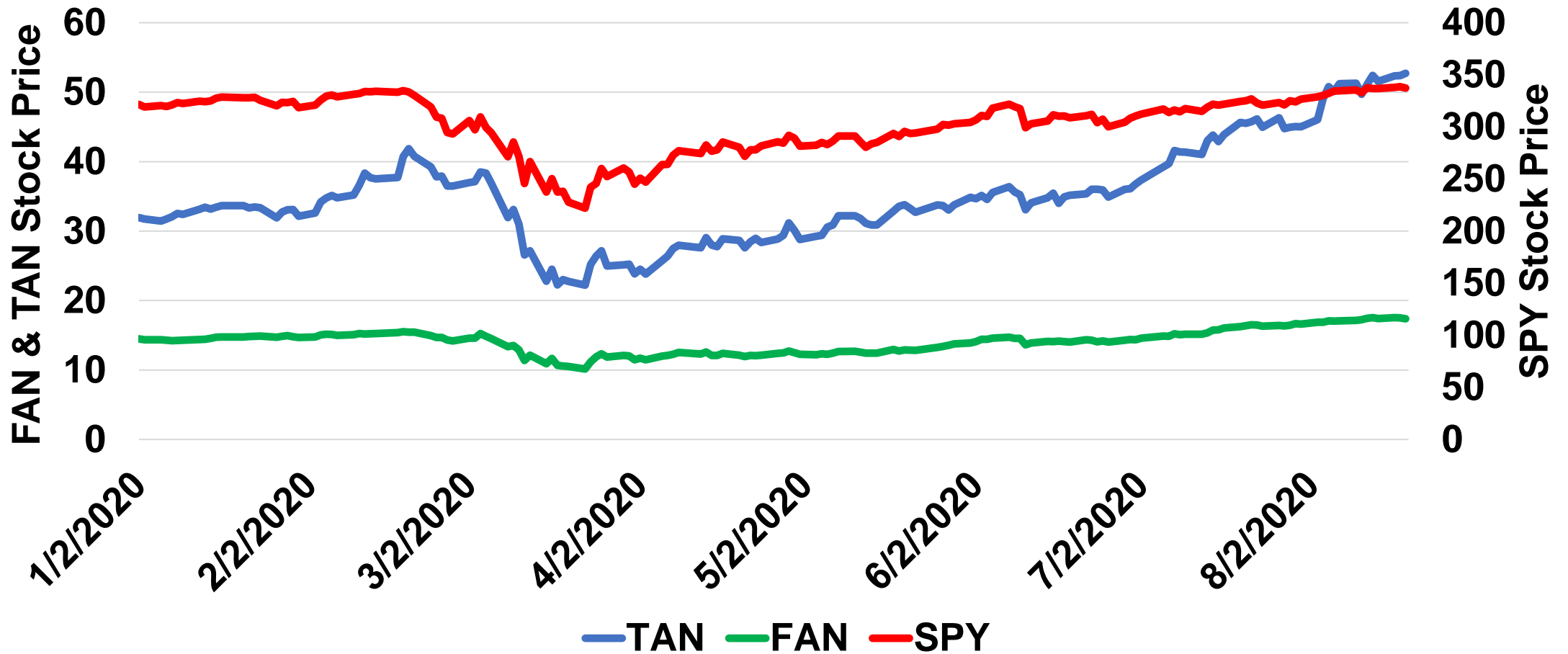


Wholesale Electricity Prices

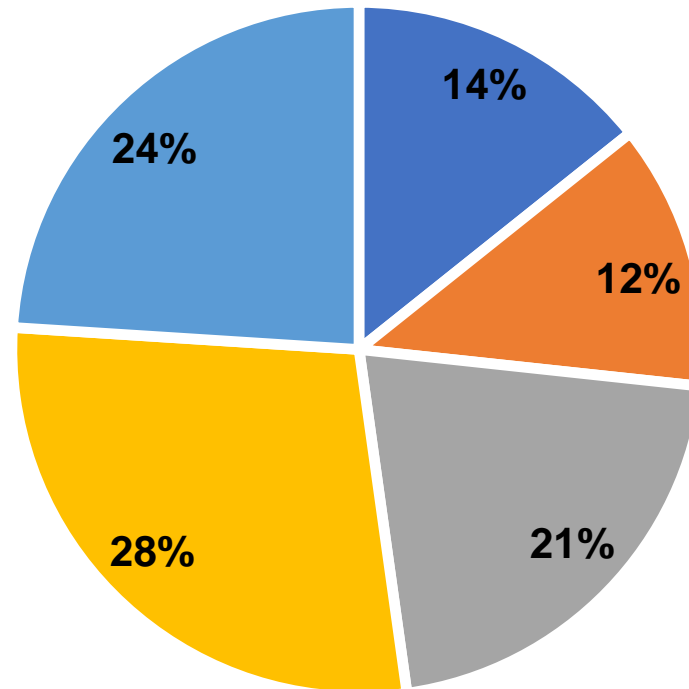


Wholesale Electricity Prices (\$/MWh)	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20
ERCOT North hub	29.71	26.04	22.07	23.9	27.31	30.96
CAISO SP15 zone	25.49	17.11	16.81	23.72	31.63	30.5
ISO-NE Internal hub	19.17	20.13	18.23	22.4	27.87	23.66
NYISO Hudson Valley zone	18.17	16.59	16.49	21.3	26.88	23.2
PJM Western hub	21.23	19.29	20.38	22.7	31.81	29.24
MISO Illinois hub	21.92	20.64	22.59	25.78	32.5	31.91
SPP ISO South hub	18.45	17.37	19.45	21.8	26.45	28.74
SERC index, Into Southern	18.09	17.56	18.59	18.53	23.13	31.36
FRCC index, Florida Reliability	23.39	18.73	18.45	18.4	22.38	28.12
Northwest index, Mid-Columbia	23.86	18.34	13.25	11.87	20.18	22.79
Southwest index, Palo Verde	23.88	17.18	16.32	25.28	38.41	29.31

FAN & TAN Prices Compared with SPY (Adjusted Close Prices to Aug. 25, 2020)



U.S. Energy CO₂ Emissions by Sector (2018)



■ Residential ■ Commercial ■ Industrial ■ Transportation ■ Electric Power

ASAP Regional Map

