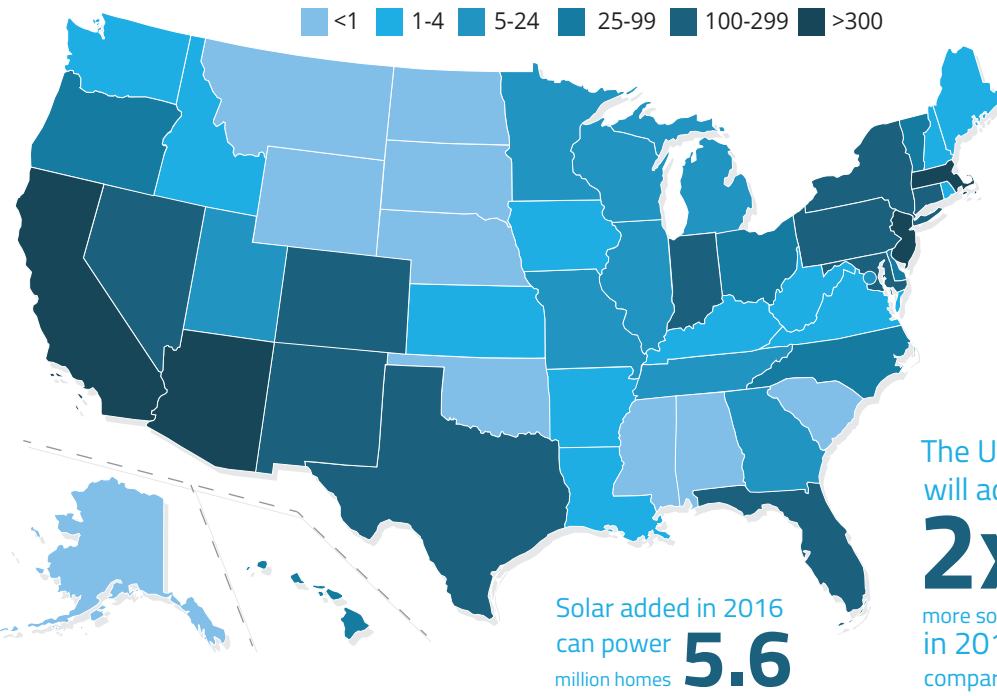


What is the U.S. Solar PV Capacity in 2016 (MW)?



Solar added in 2016 can power **5.6** million homes

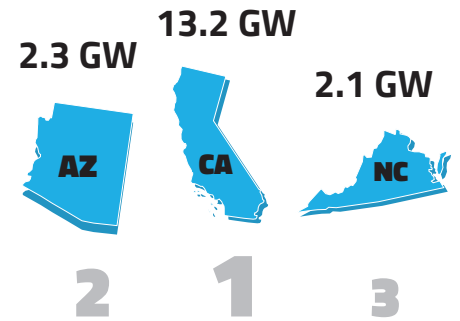
The U.S. will add **2x** more solar in 2016 compared to 2015

How Does This Compare?

7.3 GW \approx **16%** \approx Total capacity of Belarus
installed in 2015 more than in 2014

27.4 GW \approx **36%** \approx Total capacity of Egypt
solar capacity in 2015 more than in 2014

Which States Lead?



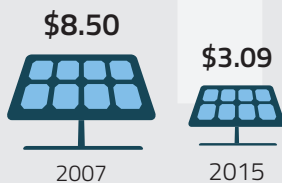
Total installed solar capacity in 2015

What is Driving This Growth?

Cost of Technology

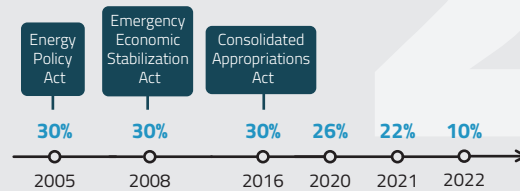
The installation costs of residential solar have more than halved in the last few years. The prices below (per Watt) are benchmarked for a residential 5-kW system.

In 2015, the cost of hardware itself (panels, inverters, rack etc.) forms less than 50% of the total cost.



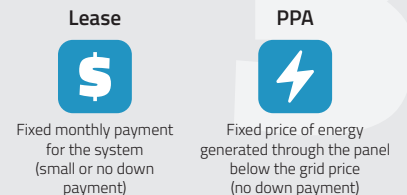
Investment Tax Credit

Allows solar energy generators to recoup a portion of their investment through tax credits

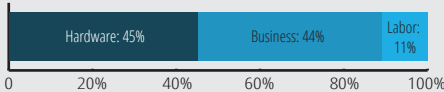


Third-Party Financing

Allows little to zero up-front payment under lease and power purchase agreement (PPA) models

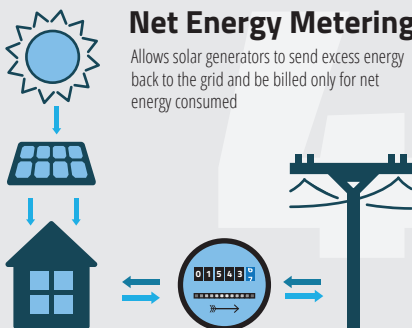


Cost Breakdown in 2015



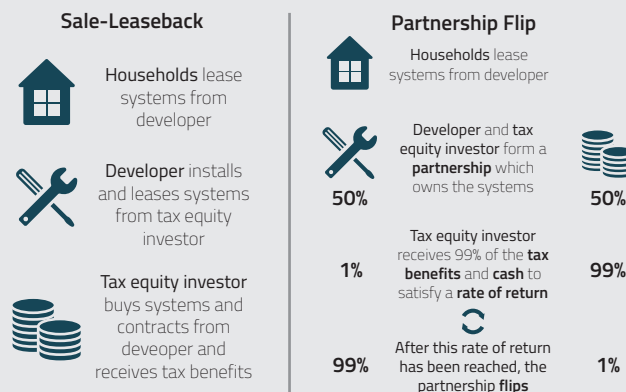
Net Energy Metering

Allows solar generators to send excess energy back to the grid and be billed only for net energy consumed

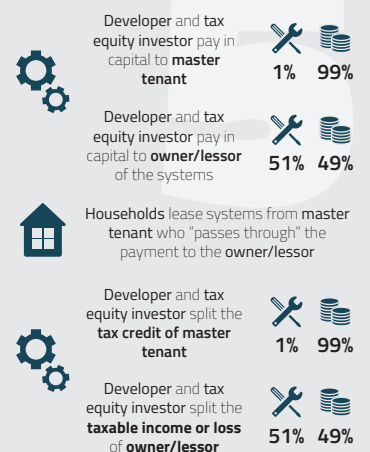


Tax Equity

Business structures with the participation of tax equity investors have allowed developers to take advantage of the tax credits when the developers themselves lack sufficient tax liabilities to offset with the credits

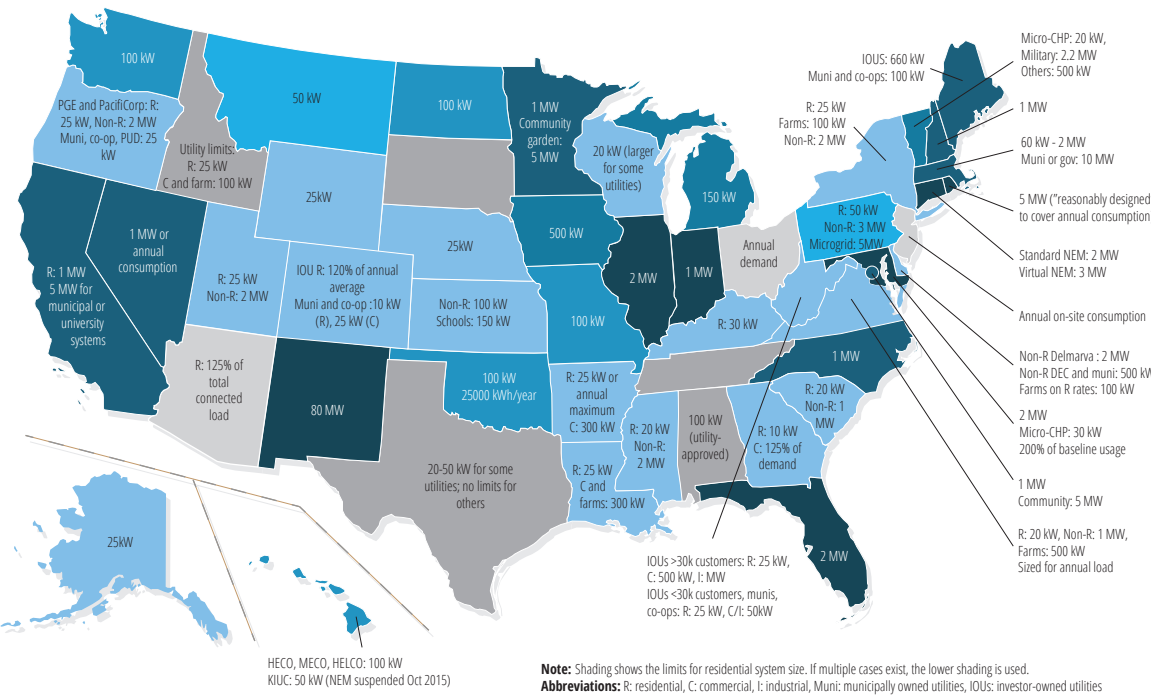


Inverted Lease (Lease Pass-Through)



What are the Capacity Limits for Solar NEM in Different States?

Legend: <25 kW, 25-50 kW, 50-100 kW, 100-500 kW, 0.5-1 MW, >1 MW, Other, No state policy



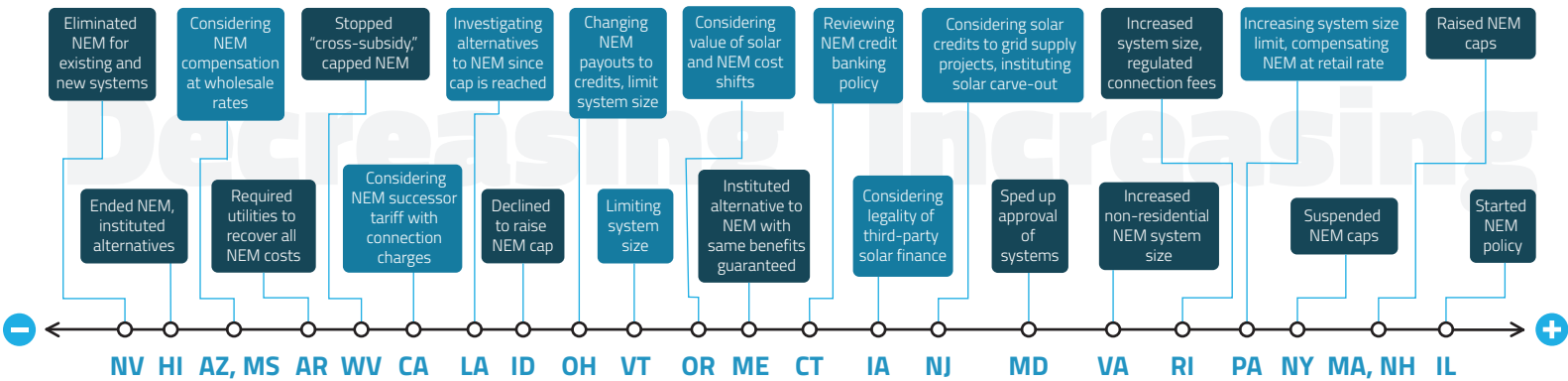
Open Dockets on NEM

- AZ** Considering the value and cost of solar to decide on retaining NEM
- CT** Reviewing NEM credit banking policy when customers change suppliers
- IA** Inquiring about customer- versus utility-owned distributed generation
- LA** Considering compensation for new solar once utility cap is reached
- ME** Seeking alternatives to NEM
- OR** Determining resource value of solar, NEM cost shifts, and reliability impacts
- PA** Increasing NEM system size limit from 110% to 200% of historical load
- UT** Reviewing costs and benefits of PacifiCorp's proposed NEM program

Over two dozen states opened dockets to address NEM in 2015/2016 with varying levels of support.

Key: **Enacted** **Open**

State Policy Actions For and Against NEM



States to Watch

New Mexico

RPS: 20% by 2020
 Tax Credits: \$9,000 for residential
 Cap on NEM: 80 MW

Sunny New Mexico has the highest cap on NEM and provides ample tax and policy support to incentivize solar development further and climb up from its 7th place in solar capacity per capita.

Pennsylvania

RPS: 18% by 2020-21 (0.5% for PV)
 Tax Credits: none
 Cap on NEM: 30 kW for residential

Pennsylvania is a latecomer to the solar game but strengthened its NEM policy in 2016, doubling system size and guaranteeing retail rates for excess generation.

California

RPS: 50% by 2030
 Tax Credits: rebates available
 Cap on NEM: 1 MW

Even as neighboring Nevada eliminated NEM for all systems, California approved a favorable NEM successor tariff in 2016 valid until 2019.



NEM offsets consumption and earns money for excess generation; provides incentives to develop solar; and is simple to administer



NEM shifts costs to non-participants since customers compensated at the retail rate do not pay delivery charges; decreases utility revenues



Solutions include eliminating NEM (NV), compensating at less than retail rate (AZ, HI etc.) or other incentives, such as rebates: (TX etc.)

EnerKnol connects you with comprehensive, real-time energy policy data from federal, regional, and state sources.

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