

**ATTACHMENT 2**  
**[Initial Comments of NC WARN and CBD]**  
**Docket No. E-100, Sub 165**

# U.S. energy storage monitor

Q4 2020 executive summary

Wood Mackenzie Power & Renewables/U.S. Energy Storage Association | December 2020



Energy  
Storage  
Association



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## About the U.S. Energy Storage Association



The U.S. Energy Storage Association is the leading national voice that advocates for and advances the energy storage industry to realize its 100 GW by 2030 goal, resulting in a better world through a more resilient, efficient, sustainable and affordable electricity grid.

ESA's mission is to accelerate the widespread use of competitive and reliable energy storage systems in North America. To achieve this mission, ESA educates stakeholders, advocates for public policies, accelerates market growth and delivers direct member value.

- Established 29 years ago
- Diverse membership including independent power producers, electric utilities, energy service companies, financiers, insurers, law firms, installers, manufacturers, component suppliers and integrators
- Federal, regional and state policy engagement

More information is available at: [www.energystorage.org](http://www.energystorage.org)

## About this report

The **U.S. energy storage monitor** is a quarterly publication of Wood Mackenzie Power & Renewables and the U.S. Energy Storage Association (ESA). Each quarter, we gather data on U.S. energy storage deployments, prices, policies, regulations and business models. We compile this information into this report, which is intended to provide the most comprehensive, timely analysis of energy storage in the U.S.

### Notes:

- All forecasts are from Wood Mackenzie Power & Renewables; ESA does not predict future pricing, costs or deployments.
- References, data, charts and analysis from this report should be attributed to “Wood Mackenzie Power & Renewables/ESA U.S. energy storage monitor”
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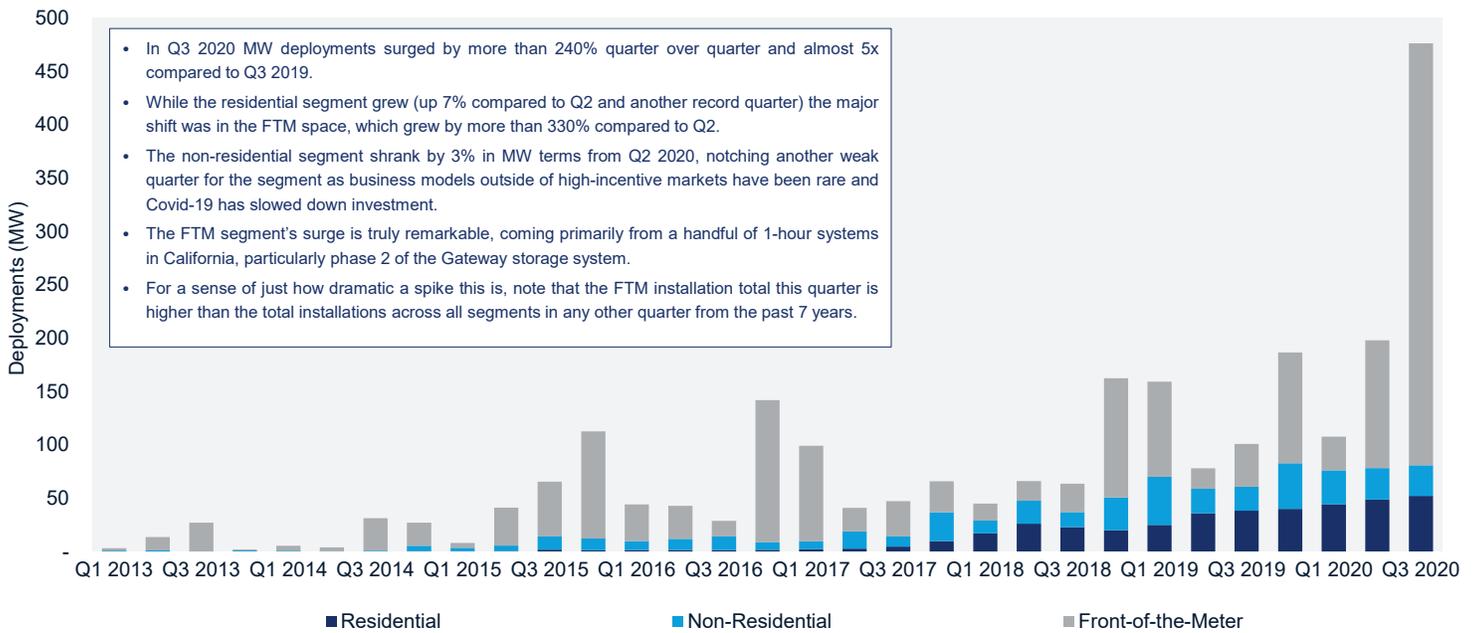
For more information or to purchase the full report, visit [www.energystoragemonitor.com](http://www.energystoragemonitor.com).

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## U.S. Q3 2020 deployments reached a staggering 476 MW

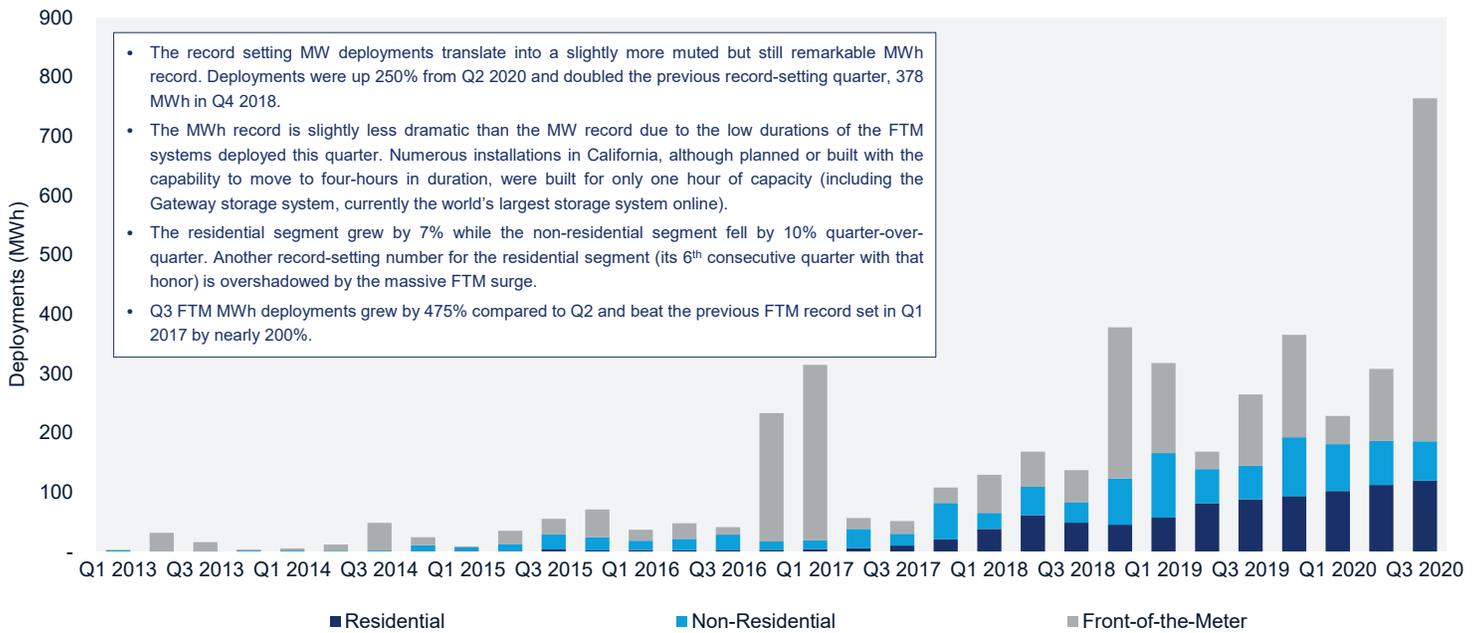
Record-shattering deployments in California redefined the market's scale - and required big edits to our Y-axis



Source: Wood Mackenzie Power & Renewables

## U.S. market deployed 764 MWh in Q3 2020

Effects on the MWh side, while still massive, were slightly muted by preponderance of 1-hour systems



Source: Wood Mackenzie Power & Renewables

## Top energy storage states, Q3 2020

California's FTM deployment total shatters national records by itself

Top three markets by segment in Q3 2020 (energy capacity)

| Rank  | Residential | Deployments (MWh) | Non-residential | Deployments (MWh) | Front-of-the-meter | Deployments (MWh) |
|---|-------------|-------------------|-----------------|-------------------|--------------------|-------------------|
| 1    | California  | 69                | California      | 39                | California         | 510               |
| 2   | Hawaii      | 20                | Massachusetts   | 17                | New Jersey         | 40                |
| 3  | Arizona     | 3.4               | Hawaii          | 11                | Arkansas           | 10.5              |

Source: Wood Mackenzie Power & Renewables



## A grand bargain? Biden win spurs hopes for a stand-alone storage ITC

Impact on market would vary dramatically depending on how any potential tax credit is implemented

Assuming Republicans hold off Democratic challengers in both Georgia runoff elections, they will hold a slim 52-48 majority in the Senate, requiring compromise in order to push any Biden administration priority legislation through.

While compromises have become rarer, President-elect Biden has a track record of forging them between a Republican Senate and a Democratic President. A storage ITC could potentially be folded into compromise legislation in a Republican majority Senate, but prospects remain unclear.

*Joe Biden acted as a key negotiator with Mitch McConnell and the GOP senate when he served as Vice President under President Obama. Notable compromises:*

- **December 2010** – tax compromise includes extension of renewable tax credit grants during recession
- **April 2012** – budget deal funds APRA-E but EPA and Energy Efficiency & Renewable Energy funds slashed
- **January 2012** – wind energy Production Tax Credit (PTC) passes as part of the 2012 “fiscal cliff” compromise
- **December 2015** – PTC and ITC extended as part of spending package which included lifting oil export ban

### Potential impacts of a stand-alone storage ITC



*ITC effectively lowers costs, pushes projects into commercialization **earlier***



*Accelerated market creates **scale**, credit certainty allows **innovation**, deployments increase*



*Less push to pair with solar could lead to **decoupling** of strongly-linked markets*

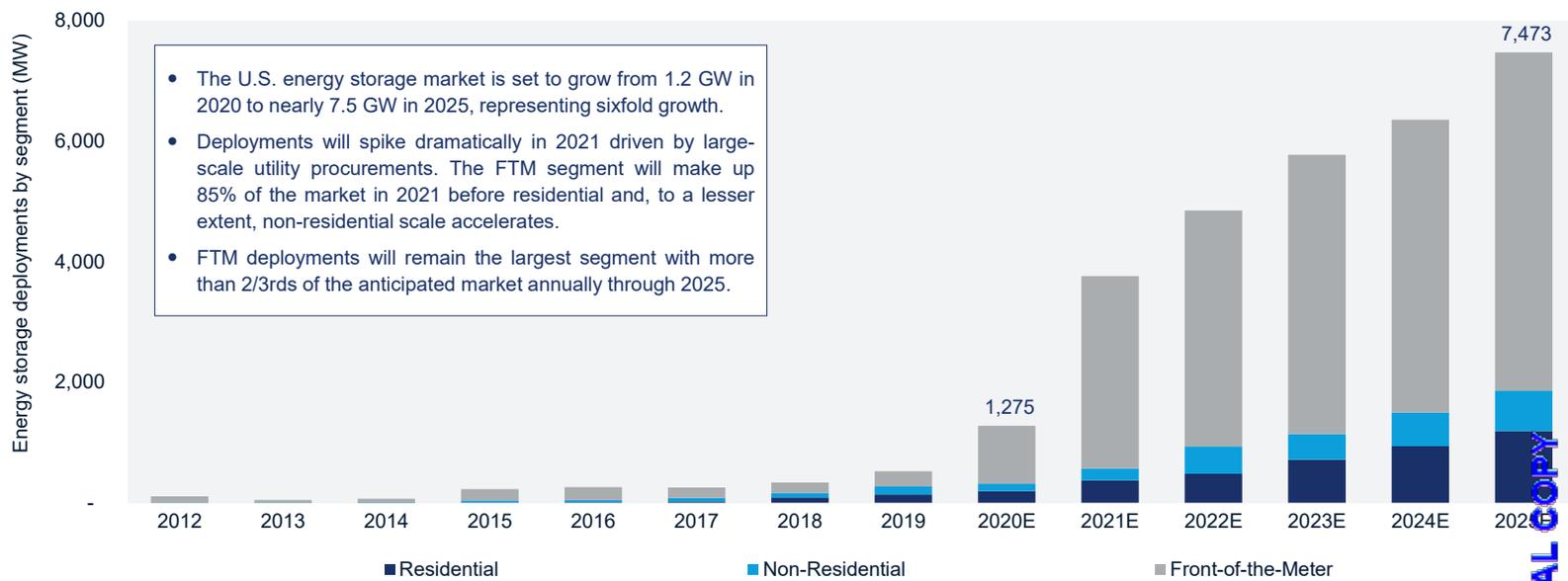


*2019 Wood Mackenzie analysis showed potential **16% market upside** depending on timing and % value of the tax credit*

## U.S. energy storage deployments will reach almost 7.5 GW annually in 2025

Annual front-of-the-meter deployments are set to quadruple in 2020 versus 2019

U.S. energy storage annual deployment forecast, 2012-2025E (MW)



Source: Wood Mackenzie Power & Renewables

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## U.S. energy storage will be a \$7.3 billion annual market in 2025

Market crosses \$1 billion annual threshold in 2020, despite COVID-19 impacts

U.S. annual energy storage market size, 2012-2025E (million \$)



Source: Wood Mackenzie Power & Renewables. Note: Market size is reported as energy storage system deployment revenue (product of deployments and installed system prices).

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We focus on the critical intersections of **technologies, policies** and **actors** reshaping the energy landscape

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Power and Fuel Markets



Energy Storage



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Grid Edge



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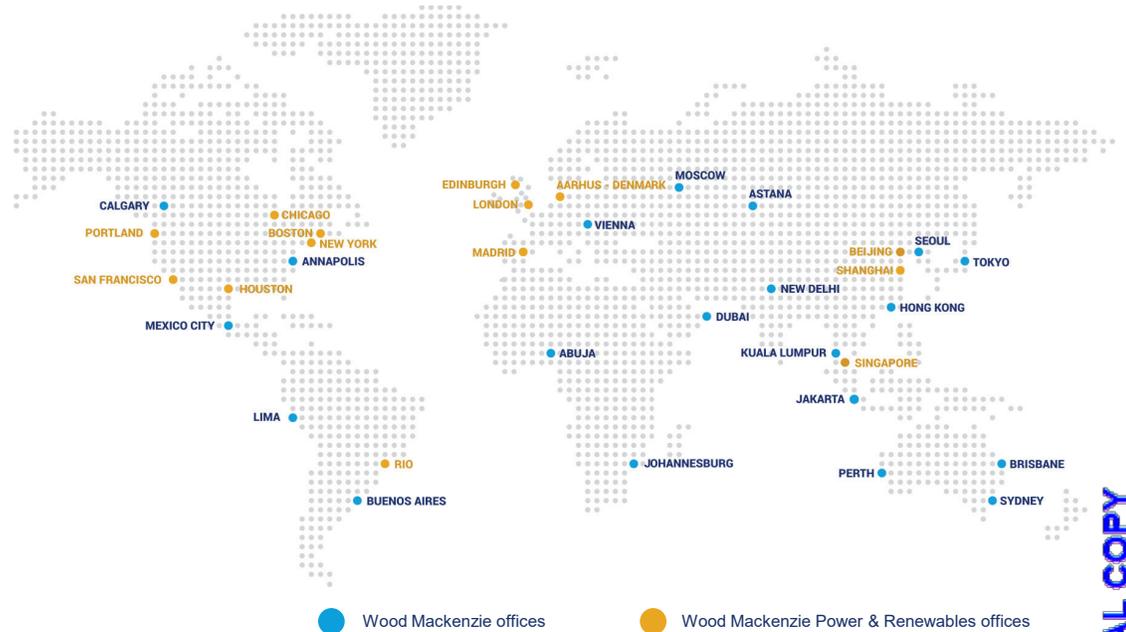
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- Leaders in renewables, EV demand and grid-connected storage
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