



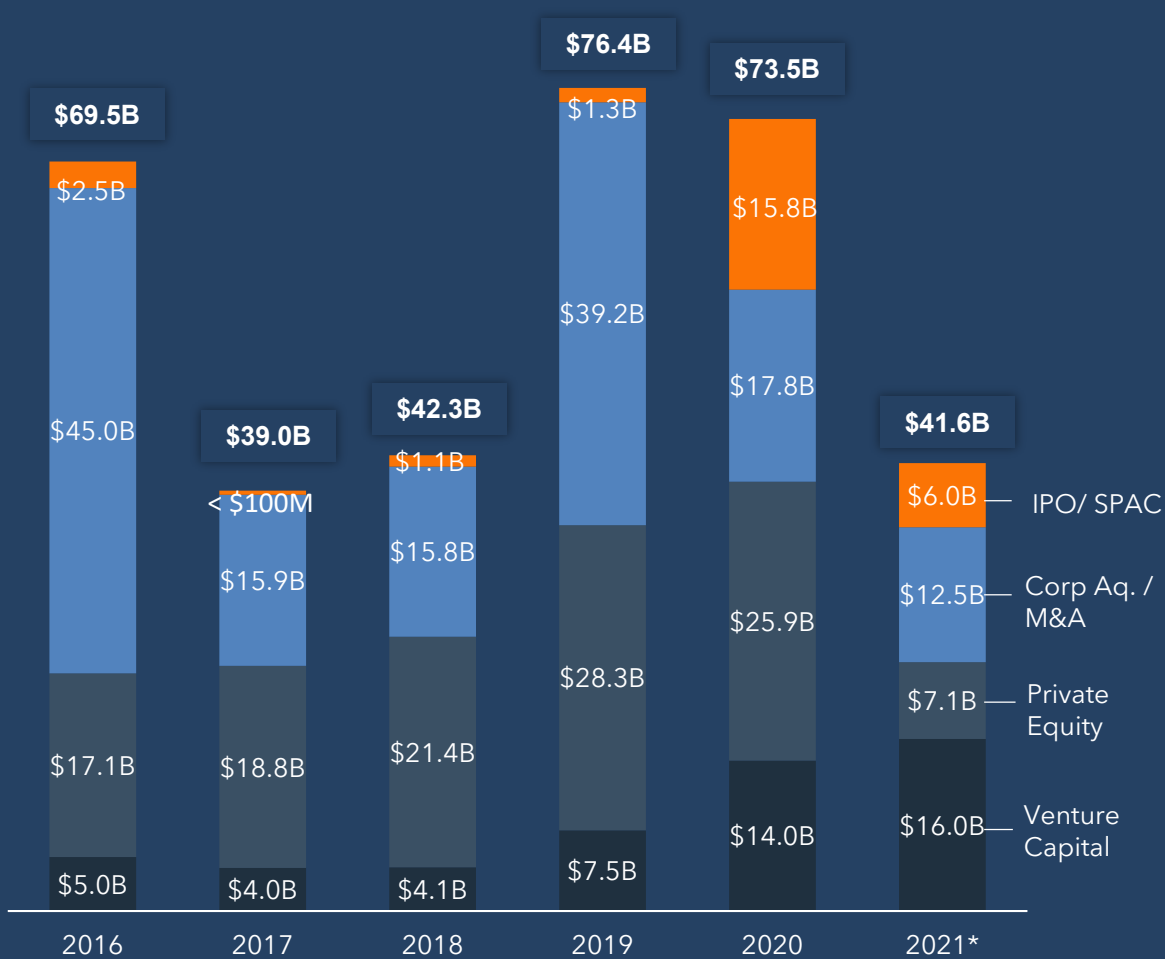
Investment trends in clean tech energy

Rafi Musher (CEO - Stax Inc.)

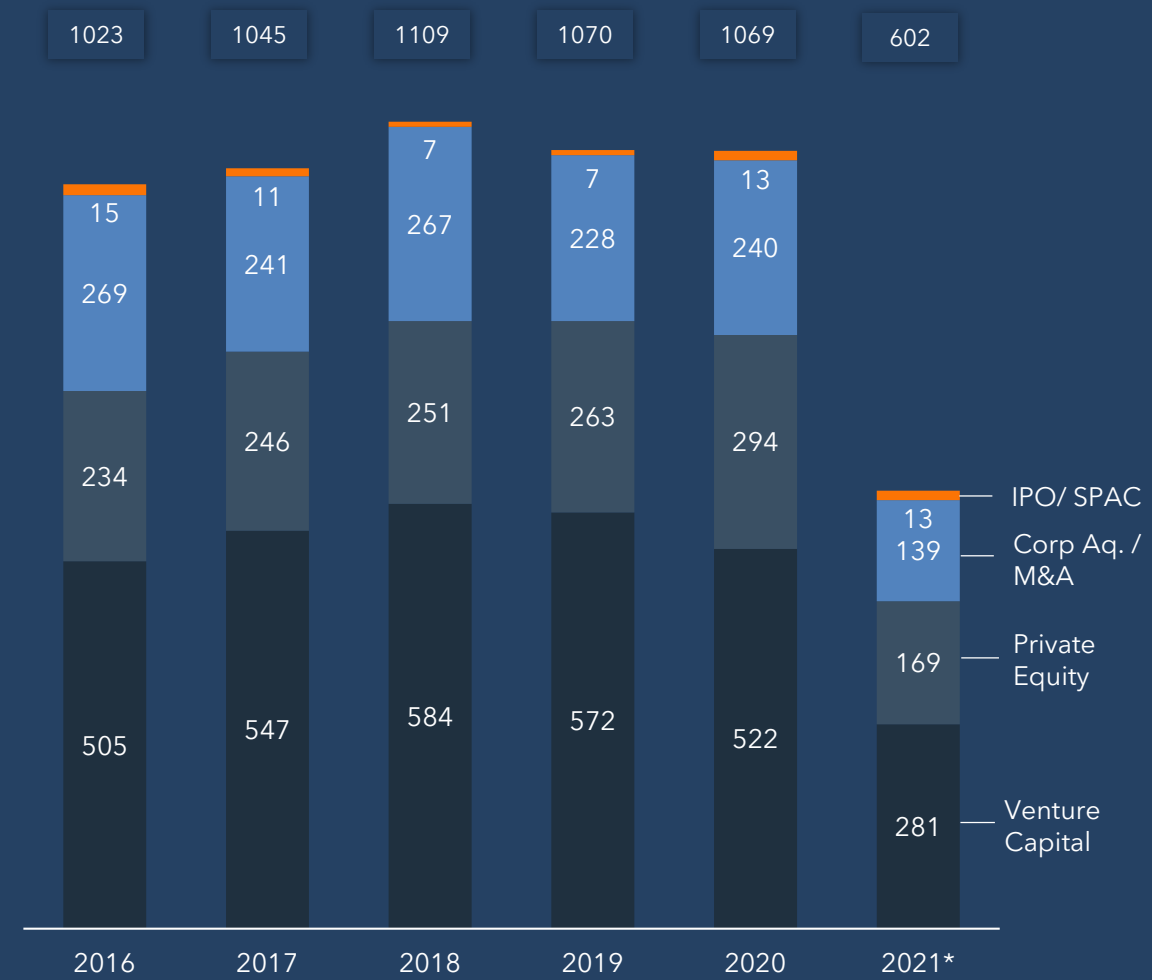
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YTD data for 2021 indicates total investments for this year should surpass prior years

U.S. Investments in Renewable Energy (\$ B)

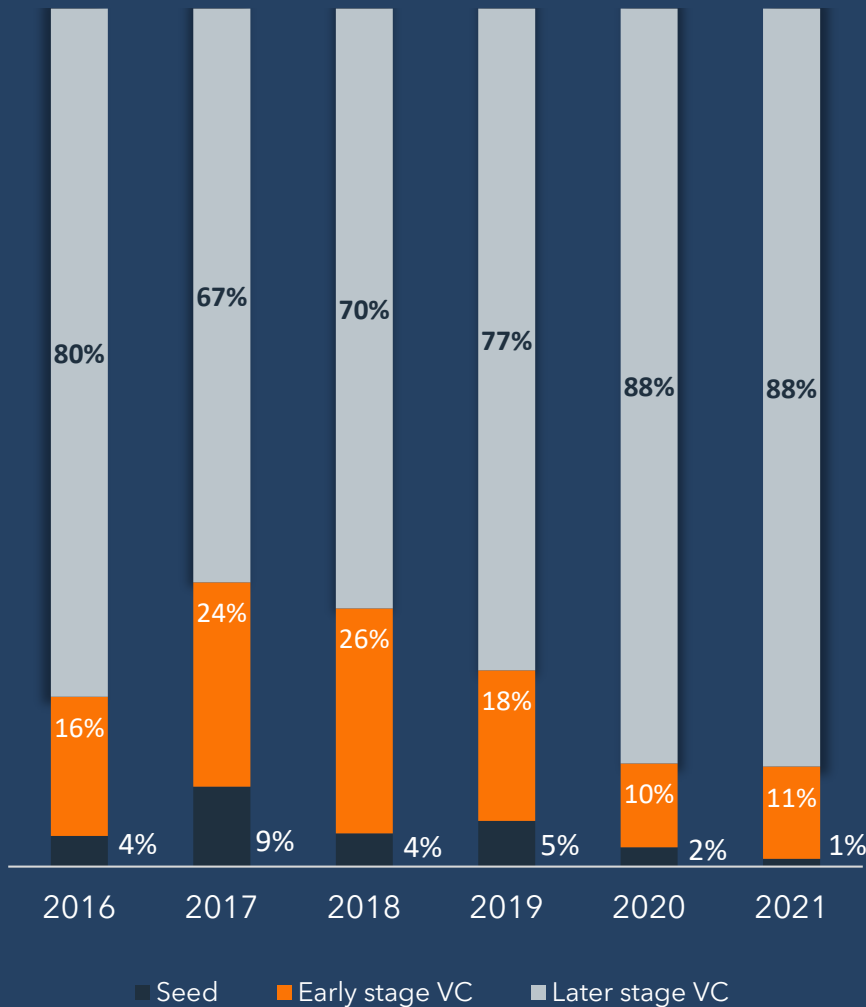


U.S. Investments in Renewable Energy (Number of Deals)



U.S. Clean Energy VC Deals by \$ Invested (2016 - 2021*)

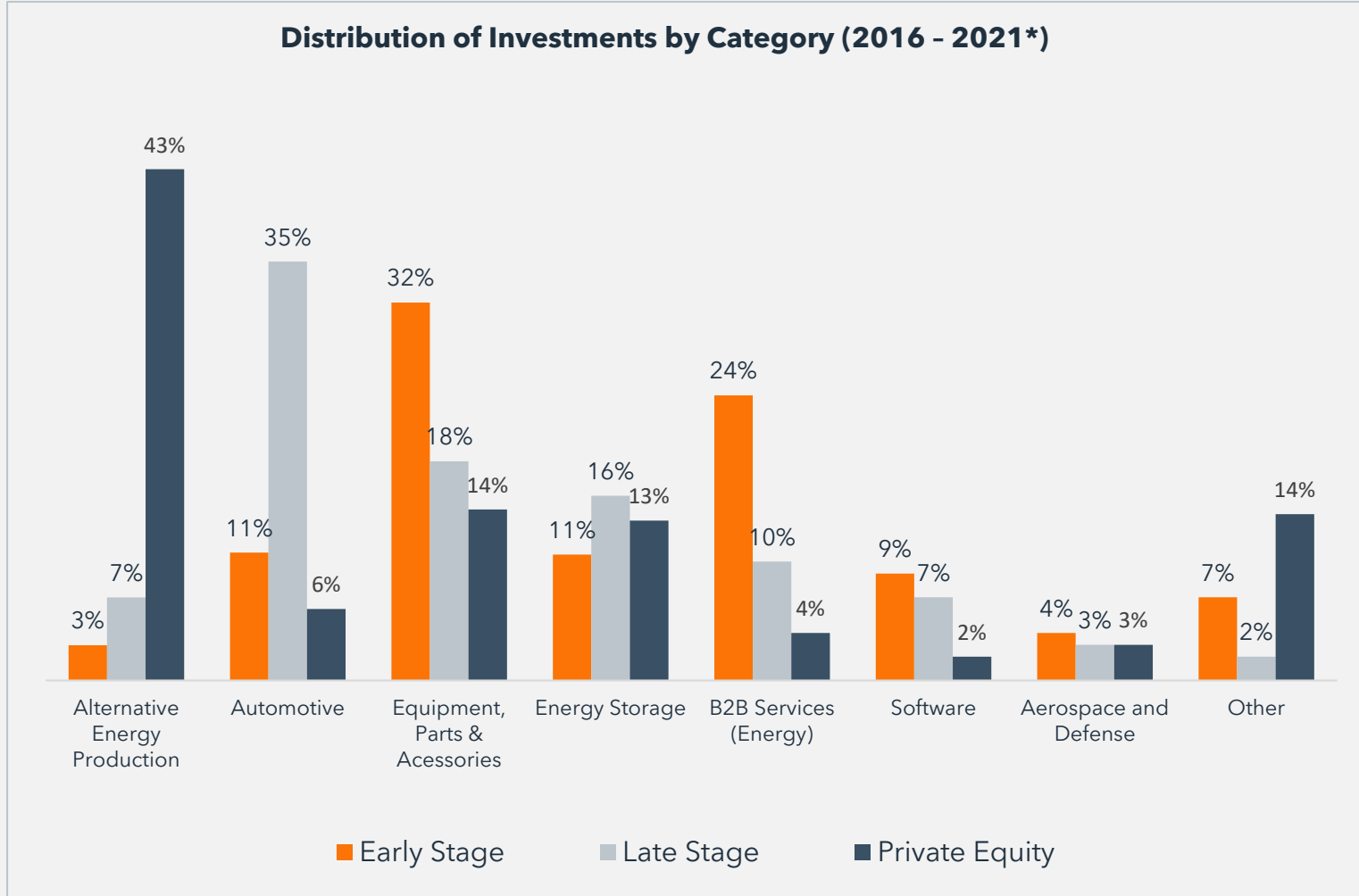
An average of ~78% is Late Stage VC



Diving into VC & PE

- PE's have extensively focused on Energy Generation investments while Late Stage VCs have focused on the EV Market.

Distribution of Investments by Category (2016 - 2021*)



Changes in the Power Market that you all know: New players, new business models create opportunities

Traditional models needed the utility - with a known set of customers and intermediaries (e.g. EE/ESCOs).



Traditional Power Generation



Transmission & Distribution



Commercial & Residential Consumption

Now - everyone can sell to everyone and buy from almost anyone.

- Distributed generation and storage: More owners, more sellers, and faster innovation to build out the various platforms.
- FERC 2222 Eases more sellers entering the energy market.
- Emerging customer options and business models, "How much I own (my generation) vs buy, energy as a service, etc." Am I profiting off the energy itself, or managing the load or assets for you?
- For each model, there are different investors.



Demand-side Management

Commercial & Residential own Generation & Consumption



**Decentralized Energy Storage
At home or in virtual power plants**

Traditional energy players bringing more capital and demand for goods, tech and services to deliver these.

While promoting/selling clean energy in the EV market.



- ~35% of all deals since 2018, in Renewables & Energy Management.
- 2030 Shell goal ~50M households and charge 2.5M EVs annually from Renewables.
- 2019 acquired Greenlots as a retail play to the US EV charging market



greenlots
A Member of the Shell Group



- May 2021, BP acquired **9GW** of Solar Development projects across 12 U.S. states, working toward accumulating 20GW of renewable energy generation by 2025
- Chargemaster is the end-run to customer play.

bp **chargemaster**

All the companies on this page, need to buy other companies on their journey.

Tech is striving to be 100% sustainable and, buying its own generation, accelerating the industry.

While promoting consumer and commercial adoption seeing the play for, and selling energy management as a service.



- Amazon Largest corporate buyer of renewable energy, globally.
- 206 renewable energy projects: 71 utility-scale wind and solar projects + 135 solar rooftops on facilities.
- **Promoting products for the home energy monitoring and management via Alexa-energy.**



- In 2020 again matched 100% of its global electricity use with purchases of renewable energy.
- By 2030, aims to operate on 24/7 carbon-free energy and add 5 GW of carbon-free energy.
- **Nest and Ohm Connect for consumers, MESA for commercial customers.**



Top signers of corporate PPAs (Cumulative 2007-2020)

8,000 MW
amazon

6,300 MW
Google

5,800MW
facebook

2900MW
verizon

2700MW
Microsoft

New players are working across the energy spectrum and evolving go-to-market models, which could one day tap EE funds

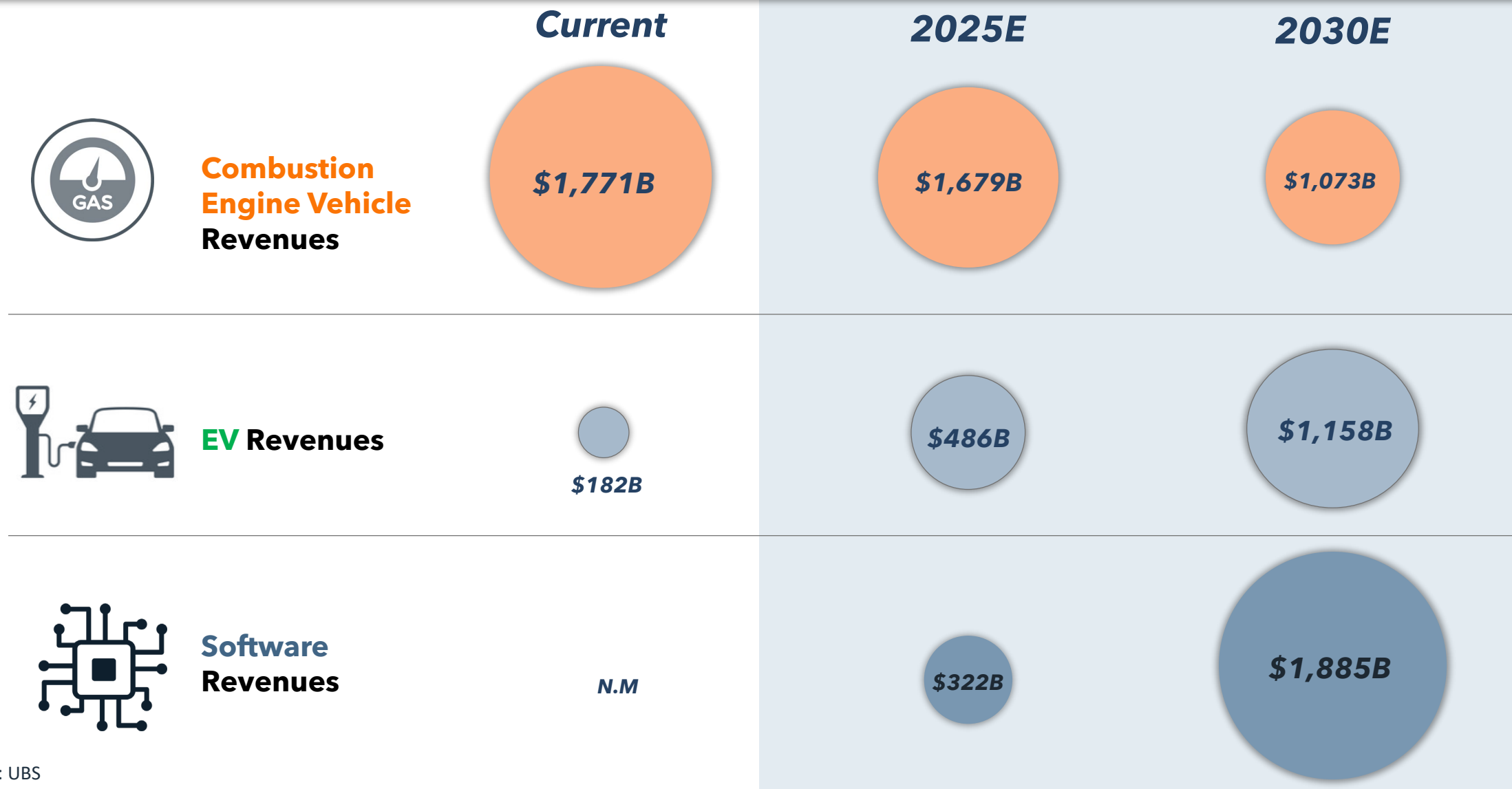
- Large Scale Strategic
As **BP, Shell, ENI** -
- Moving from majority hydrocarbon production, to sourcing their own clean energy.
- Buying/building new form of distribution at the end-customer with charging stations.
- Cannibalizing their own market rather than letting someone else do it.
- Creating their own loop with the best parts of the value chain, leveraging the complicated transmission/permitting of others.

- **Hold-co, with both tech capabilities and ability for large scale development financing.**
- **Alphabet's Sidewalk Labs + Ontario Teachers** in 2019: Creating the investment holding company **Sidewalk Infrastructure Partners (SIP)**.
- **SIP** invested \$100M into **OhmConnect** a home management solution provider, branding themselves as having the largest NA virtual power plant, Resi-Station, with a 550MW goal.
- **Mesa** is a Sidewalk Labs offering providing full office monitoring and device by device management.

- **Newly classified as energy provider?**
- **Generac Holdings**, manufacturer of power generators, acquired **Enbala Power Networks**, a distributed energy resource (DER) software platform in October 2020.
- **"Generac's Grid 2.0 opportunity"** is to provide DER/Virtual Power Network, as it could now be a virtual powerplant, with regional and national scale. (Nov. Generac Presentation).



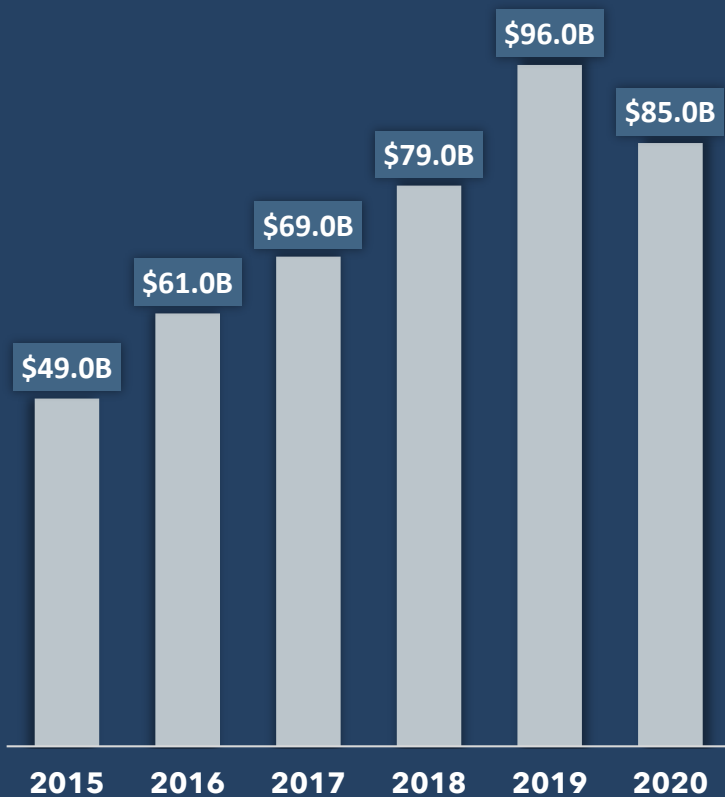
Global Expectations of the EV Market



The lead up to 2021

Investments in renewable power generation have continued to grow.

U.S. Investments in the Clean Energy Transition (2015 - 2020)



The U.S. Accounted for **~20%** of Global Investment in Clean Energy in 2020

Solar & Wind Technologies accounted for **99%*** of renewable Energy Investments

~\$100M /year is invested in Hydrogen cell technologies

The levelized cost of PV Solar Power has fallen **~82%** over the past decade to 2020

Gross IRRs for Smart Grids averaged at 32.3% while Energy storage hovered at **~29.2%**

U.S. Onshore wind sector installed **~17GW** of capacity in 2020—its highest ever in a year.

*Not considering large hydropower and battery storage

~ Appendix ~

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