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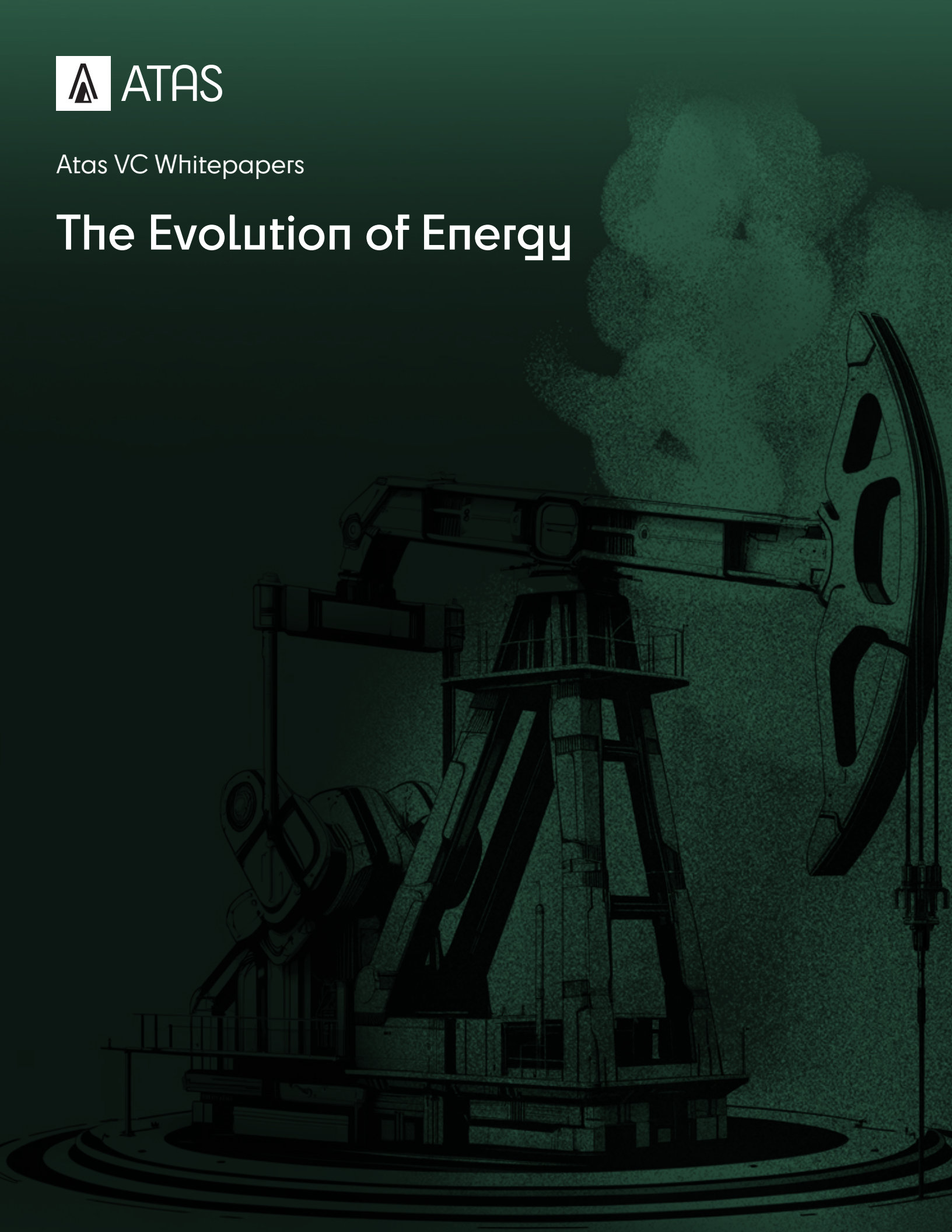
Atas VC Whitepapers

The Evolution of Energy



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We're in an Energy Evolution, Not an Energy Transition

How we can invest in green and clean technologies that honors the traditional energy infrastructure of the United States.

Climate Change is Coming.

There is no doubt that climate change, no matter your belief on who or what causes it, is a fundamental human problem that we will need to solve.

Within this necessity of a greener future, VCs since the early 2000s have been trying to solve the climate problems by well, throwing away money. And whether anyone has fully come to terms with it, the 2021 era of cleantech investment was the second great cleantech bubble.

That doesn't mean that legendary and generational companies aren't built during bubbles. Tesla was founded in 2003 and the first Tesla Roadster was delivered in 2008, 3 years before Solyndra went bankrupt, and four years before A123 went bankrupt. Amazon, Google, PayPal, Salesforce, and many others were founded during the dot com bubble. We're just now starting to see the second climate tech bubble burst, and many companies from it still can succeed. Who knows, maybe we'll even manage to commercialize nuclear fusion.

But for an asset class driven by outsized returns like venture capital, this type of investment strictly speaking, doesn't work.

Any energy transition relies on a shift in human culture that just realistically isn't going to happen. Oil and gas are not going away anytime soon. Let's look at the consumption of petroleum products by sectors: only 6% ends up in residential and commercial power. About 10% ends up as petrochemical feedstocks, petrochemicals, plastics, and other synthetic materials.

The mix of crude oil products is far broader and far more comprehensive than most people realize. As a thought experiment we can imagine an idealistic world where we're able to remove all ICE cars and replace every single car with an EV (idealistic meaning this fails to account the crazy and ridiculous supply chain issues/critical minerals challenges), which then leaves us with… well, 57% of a barrel of oil still being used. Even the ideal outcomes don't solve real problems.

Realistically I don't believe that humans ever change their consumer habits until there's a problem that directly affects them, or until there's a far better solution on the other side. My best case study for this is smog in Los Angeles.

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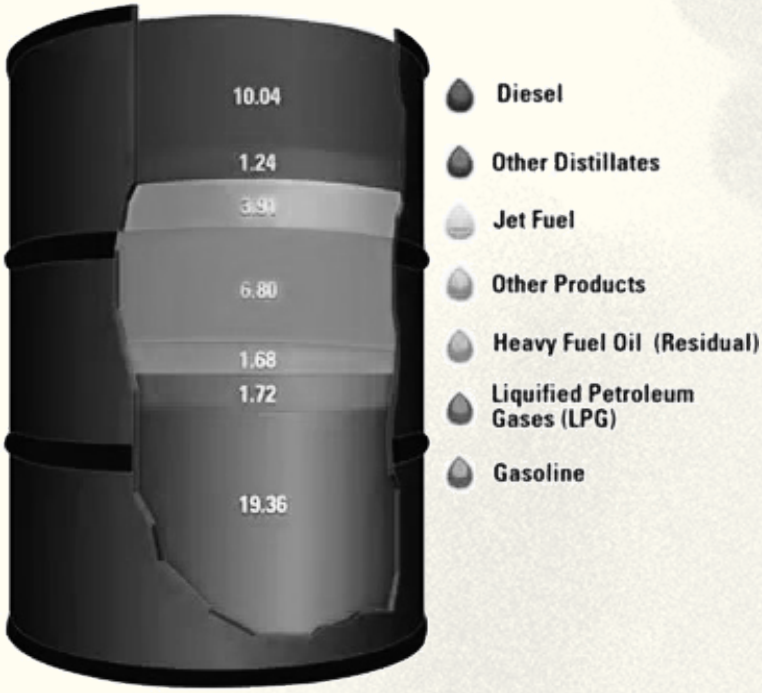

Much of Los Angeles' environmental policy, such as the creation of the Air Pollution Control District, the creation of the CARB, and the eventual passage of the clean air act come from the one simple thing: people could see the smog every day and had clear health impacts that they could attribute to it.

I expect climate change to function similarly. Although there are events that you can directly tie to a changing climate, realistically, until it hits a consumer in the wallet, or personally, I don't expect any regulatory changes, or the corporate demand for carbon credits that many Greentech companies need to succeed, to show up in any tangible form. A trivial example, but paper straws, frankly, suck (no pun intended) and nobody is going to decrease the quality of their life personally until they see a real reason to.

With this, the balance resides in acknowledging that you can create real returns and create a positive impact. Fundamentally, we must acknowledge that oil and gas is not going away. That we will continue to rely on natural resources broadly. But that within those categories, there are ways we can develop and improve efficiency to decrease our climate impact, while simultaneously increasing shareholder values.

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Instead of trying to replace oil, we can replace coal with natural gas; the latter emits 50-60% less CO2 when burned than coal for the same amount of energy. Instead of demonizing the oil and gas industry, let's think about how we can waste less fuel and do more; only roughly 25% of the energy in your gas tank goes to running the car versus being emitted as waste heat. Areas from a venture capital side where I see this playing out are responsible fracking, mineral resources infrastructure, the next generation of nuclear fission, and remote sensing for oil and gas process management/flare reduction. In essence: general dual use technologies that create a positive financial ROI for the "old" energy industry while making a noticeable or step-change for the climate as well.

There will come a time when we invest in an energy transition. But that time will be supported by oil and gas majors, as they think about the future of their businesses and how those evolve into the next generation. And frankly, like Juicero, there are some things that will never work, no matter how good of ideas that they seem to be on paper.

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