

Affordable solar electricity for the DR Congo: Rapid growth despite COVID-19

[PITCH VIDEO](#) [INVESTOR PANEL](#)



novomoto.net Madison WI [Twitter](#) [Facebook](#)

[Hardware](#) [Technology](#) [Infrastructure](#) [Black Founder](#) [Social Impact](#)

Highlights

- 1 Opportunity to invest in \$25B energy market in sub-Saharan Africa
- 2 Invest in a first mover in the off-grid solar market in D.R. Congo with the goal of bringing electricity to 1 million families by 2026
- 3 Completed over 300 solar installations for customers in D.R. Congo up to mid-2019, 13% month-over-month growth since mid-2017
- 4 More than 1500 people have access to electricity from NovoMoto's installed systems
- 5 More than \$20,000 savings provided to our customers
- 6 Additional \$18k raised in Reg D
- 6 Additional \$18k raised in Reg D

Our Team



Aaron Olson Co-Founder/CEO

PhD at UW-Madison and former NASA Space Technology Research Fellow

I was born in the Democratic Republic of Congo in a clinic with no electricity. I was fortunate to grow up in the US, but my family - like 15 million others in the DRC - has dealt with a lack of electricity. NovoMoto has the potential to change life for millions with its clean electricity products that come at a lower cost than current solutions!



Mehrdad Arjmand Co-Founder/CEO

PhD at UW-Madison at the Materials Research Science and Engineering Center



Wilfred Audley

NovoMoto

Life Changing, Affordable & Clean Electricity for Off-Grid Customers in Africa

Background

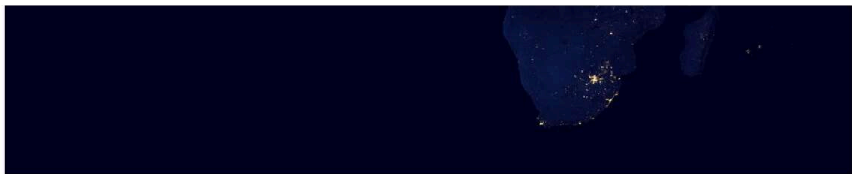
NovoMoto is a for-profit social enterprise that provides clean electricity for off-grid communities in sub-Saharan Africa.



NovoMoto Team in Kinshasa, DRC

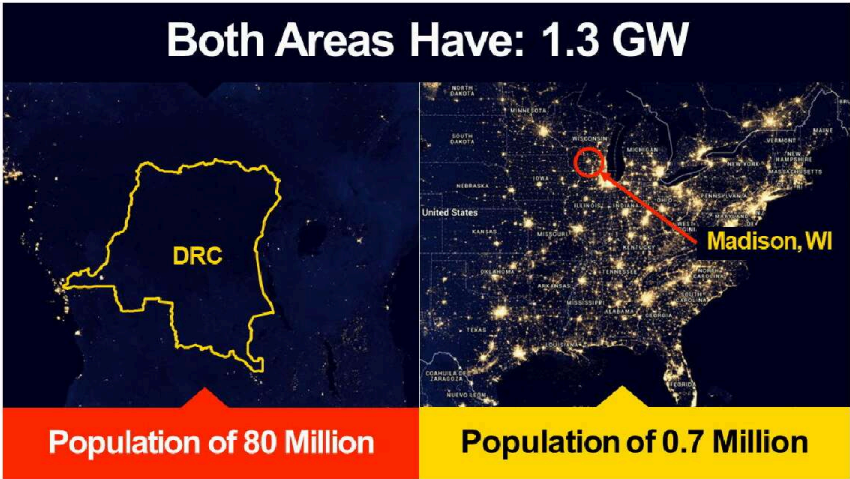
The company was started out of Madison, WI, where founders Mehrdad and Aaron met and completed their PhDs in Engineering. NovoMoto started serving customers in the Democratic Republic of Congo, where one of the founders, Aaron, was born.





Problem

Aaron was born in a small clinic in a city called Kikwit. There was no electricity in the clinic. All his mom had in the room was a dim kerosene lamp. That was over 30 years ago, and now across Congo, the situation is worse. To the point where the greater Madison area, with only 0.7 million people, has more power than all of Congo and its population of 80 million.



This means that over 90% of the population lacks access to reliable electricity. 73 million people.



The average Congolese family spends nearly about \$18 per month on electricity alternatives like dim and potentially dangerous kerosene lamps, candles and flashlights. These options only provide a few hours of light per night and force families to leave their phones to charge for hours at kiosks powered by diesel generators.





Solution

We enable a brighter life for our customers with reliable and affordable electricity. Our customers get brighter and longer lasting lighting for themselves and their children along with the ability to charge their phones at their convenience. All this for less than the cost of inferior solutions.

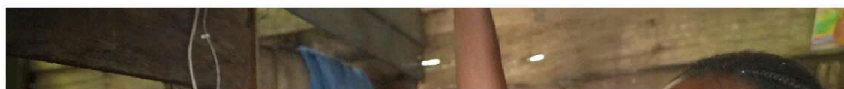


We do this by installing complete solar power packages with a rent-to-own approach. The packages range from kits with three LED lamps and phone charging to kits with TVs and more.



The two current NovoMoto system options (H20 left and H100 at right)

We make our solutions affordable by allowing our screened customers to pay us in increments over at most 18 months. Customers pay us through their phone and receive text messages with codes to keep their systems activated.





Our customer, Kabibi Ilofo, after entering her activation code for a month of using her system

As customers pay off their packages, they become eligible for upgrades that allow them to power more of the appliances they need at their home or small business.



One of NovoMoto's customers, Aminata Badilu, using his system to keep his shop open later into the night

Product Portfolio

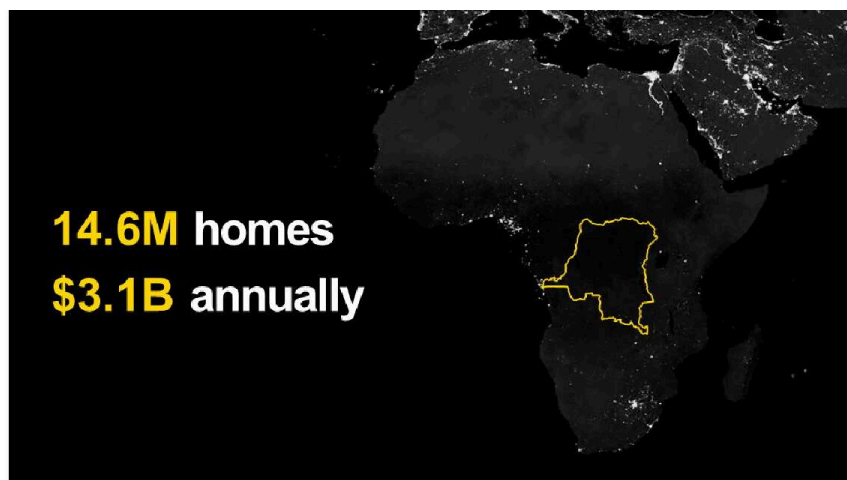
NovoMoto offers rent-to-own solar-powered systems. NovoMoto's systems consist of a battery pack connected to a solar panel and energy-efficient appliances. This battery pack both powers the appliances and enables mobile phone charging. The packages offered and their payment plans are described below:

PRODUCT	INITIAL FEE (USD)	MONTHLY PAYMENT (USD)	PAYMENT PERIOD	CUSTOMER'S AVG. 5-YR SAVINGS
SOLAR PANEL, BATTERY, 3 LED LIGHTS, PHONE CHARGER	\$25	\$10 / mo	18 months	\$816 (or 80%)
EVERYTHING ABOVE, PLUS TV	\$80	\$24 / mo	18 months	\$512 (or 50%)

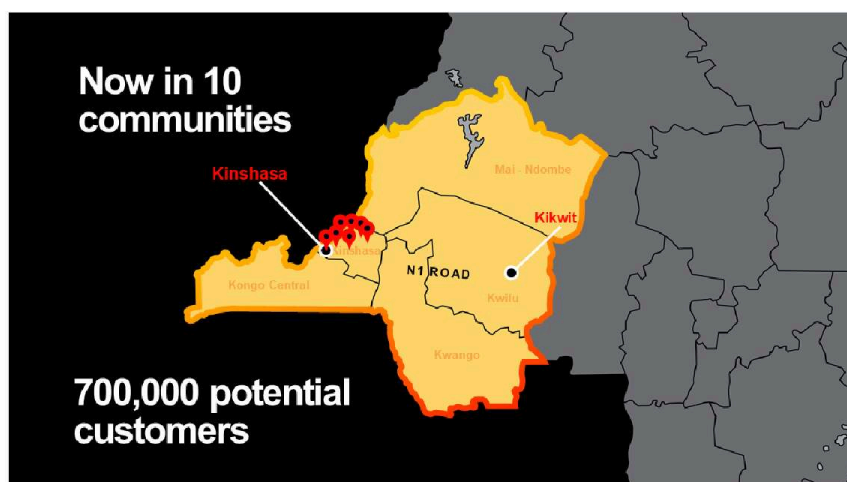
Market & Opportunity

Across sub-Saharan Africa, there are an estimated 120 million families without access to reliable electricity. They spend over \$25 billion annually (\$18/home per month) on grid alternatives for lighting and phone charging. Congo has the third largest off grid population on the continent with about 15 million families who

currently spend over \$3 billion each year on lighting and phone charging.

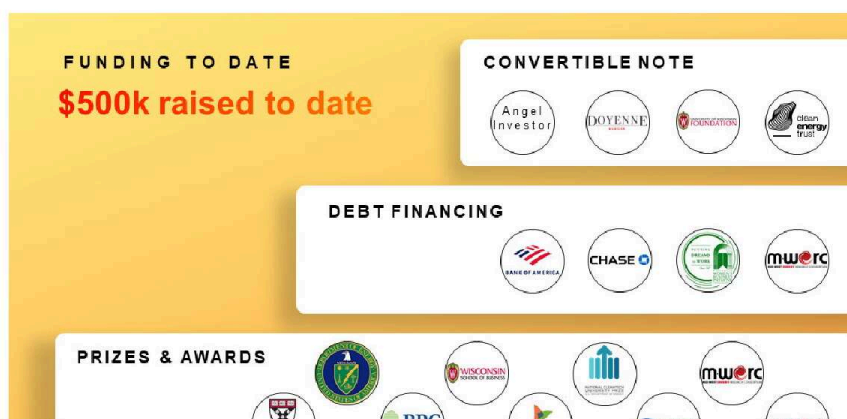


NovoMoto has become one of the first movers in the country with our operations in the western part of the country. In the 5 western-most provinces, there are over 3.5 million homes who spend over \$740 million annually on lighting and phone charging. We already have customers, just outside of the capital, in more than 10 communities where there are at least 700,000 potential customers.

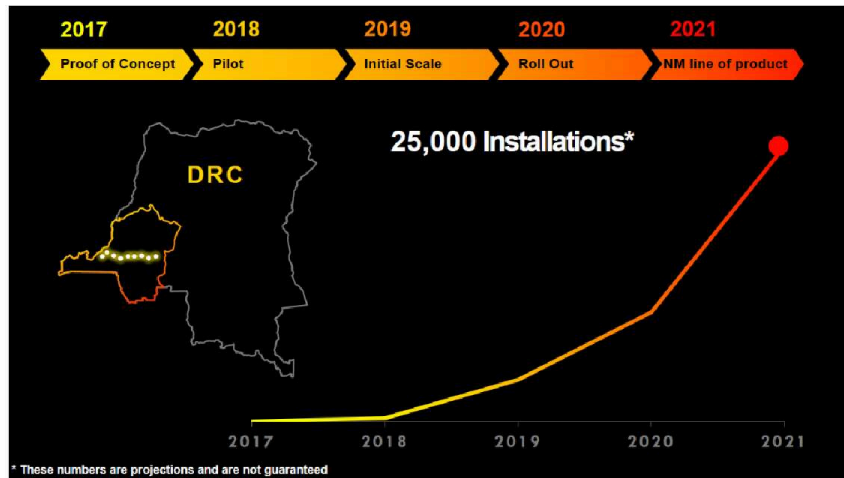


We are the only company offering rent-to-own packages in this part of the country and one of only 3 using the pay-as-you-go approach in the entire country.

To get this far we have raised \$500,000 in grants, debt and equity from our great investors. Their support has allowed us to go from just 20 pilot customers in 2017, to nearly 180 by the end of last year, and to over 300 so far in 2019.



We want to serve 5,000 customers by the end of 2020. We need \$1.5 million to take this step. Meeting our 2020 milestone would put us in a great position to reach profitability by the end of 2021 with over 25,000 projected customers.



Potential Investment Opportunity Based on Future Projections

After building a significant presence across Congo, we want to change lives by bringing reliable electricity to over 1 million people across sub-Saharan Africa by 2026. In doing so, NovoMoto would become a target for acquisition or merger by the large energy firms like Engie (who recently acquired two companies in our industry in Africa) that have already invested over \$840M in the off-grid energy industry.



Team

We are a strong team of passionate founders, employees, advisors, and investors. With you we will have everything we need to achieve our mission.



Founders

While finishing graduate school, Mehrdad and Aaron, validated the NovoMoto business model and turned an idea into a revenue-generating company with a strong team of managers, sales ambassadors, and technicians in Congo.

Mehrdad Arjmand (Co-Founder/CEO, Ph.D.)

Mehrdad completed his Ph.D. in Engineering Mechanics at the Materials Research Science and Engineering Center at the University of Wisconsin-Madison. Mehrdad worked in the oil and gas industry before starting his Ph.D. Mehrdad is passionate to work in the renewable energy sector and enjoys serving customers in emerging markets with huge potentials and opportunities.

Aaron Olson (Co-Founder/CEO, Ph.D.)

Aaron completed his Ph.D. in Engineering Mechanics at the Fusion Technology Institute at the University of Wisconsin-Madison. Aaron is a NASA Space Technology Research Fellow and a Graduate Engineering Research Scholars Fellow. Aaron is originally from Kikwit, DRC and co-founded NovoMoto to help solve the extreme lack of electricity in his home country.



Social Impact

Most of NovoMoto's customers are gaining access to electricity in their homes for the first time! They immediately benefit from a far superior lighting experience. Those that are switching from using kerosene lamps are saving their families from inhaling toxic fumes.

As part of NovoMoto's new marketing strategy, 25 clinics share information about NovoMoto's systems to their patients and community in exchange for a lighting and phone charging system that will help them better serve patients.



Competitors

Retailers of kerosene, candles, and disposable battery flashlights are NovoMoto’s largest competitor in DRC. There are local companies that retail solar power equipment in DRC, but these companies charge high upfront costs that are unsuitable for most off-grid families. One other Pay-As-You-Go (PAYG) company is active in the western part of DRC. Their solutions are more expensive and are offered on a perpetual lease, thus making them even more expensive than the rent-to-own NovoMoto solutions. A comparison of lighting & phone charging solutions in NovoMoto’s target market is below:

	KEROSENE RETAILERS	SOLAR RETAILERS	PAYG COMPANIES	NOVOMOTO
Light & Charging Experience				
Clean Energy Access				
Upgradeability				
Upfront Cost				
Monthly Cost				
5-Year Total Cost				

- **PAYG Competitors in DRC:** BBOX, Orange Energie
- **Potential PAYG competitors, not active in DRC:** Standalone solar system providers such as Zola, Azuri, M-Kopa, Fenix International, and microgrid providers including Devergy and Powerhive

Comparables

Impact Energies was acquired by Persistent Energy Partners in Q1 2014 for an undisclosed amount while it had 5000 customers. Fenix International was acquired by Engie, a French utility, in Q4 2017 for an undisclosed amount (estimated to be ~\$100M) while it had 140,000 customers. The industry attracted over \$840 million in strategic investment by the end of 2018. The table below shows some investments into PAYG firms in other African markets:

COMPANY NAME	OPERATIONAL COUNTRY	TOTAL AMOUNT RAISED	LAST RAISE DATE	NUMBER OF PAYG CUSTOMERS (2018)
Zola Electric	Tanzania, Rwanda	\$271M	2018	200,000
M-KOPA	Tanzania, Kenya, Uganda	\$194M	2018	500,000
d.Light	Kenya, Uganda	\$188M	2018	250,000
BBOX	Kenya, Uganda, Rwanda	\$112M	2019	200,000
Greenlight Planet	Kenya, India	\$82M	2018	250,000
Fenix International	Uganda	\$17M	2018	140,000

Financing and Milestones

ROUND	CLOSING	RUNWAY	AMOUNT	MILESTONES FOR THE ROUND
-------	---------	--------	--------	--------------------------

ROUND	STARTING	ENDING	FINANCING	MISSIONS FOR THE ROUND
PRE-SEED	Q1 2019	Q4 2019	\$230K - Equity \$120K - Debt \$145K - Grant	- 300 Total Installations by Q4 2019 - \$1K MRR - 10 Total Villages
SEED	Q1 2020	Q4 2020	\$1.5M	- 5,000 Total Installations by Q4 2020 - \$60K MRR - Serving Customers in 20 Villages
SERIES A	Q1 2021	Q4 2021	\$16M	- 100,000 Total Installations by Q4 2020 - \$1.1M MRR - Enter into 70 New Villages/Towns

Downloads

[NovoMoto Pitch WeFunder.pdf](#)

[NovoMoto Executive Summary - WeFunder.pdf](#)