

## Harnessing the Winds of the Rift Valley

*ROB GRAMLICH spent years promoting wind power as a top official of its trade group in Washington, D.C., at a time when investment nationwide surged. But in the middle of his career, he moved to electricity-starved East Africa to help jump-start a renewable energy revolution*



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— DAR ES SALAAM, TANZANIA

**R**ob Gramlich has spent a 25-year career in Washington, D.C., building a reputation as a resource economist and energy policy expert, including more than a decade at the American Wind Energy Association, where until recently he was senior vice president for government and public affairs.

But for a mid-career sabbatical last summer, Gramlich passed on the clean energy hubs of Europe and Asia in favor of Tanzania, where for six weeks he sustained himself on chapati and rice, communicated in rudimentary Swahili, and grew a beard better suited to summiting Mount Kilimanjaro than slogging through a hot D.C. summer.

Gramlich, who left AWEA in January to launch the consulting firm Grid Strategies LLC, was not a lost soul in a distant land. He was immersing himself in what many believe to be the number-one challenge facing the global energy sector today: bringing clean, reliable electricity to roughly 630 million people in sub-Saharan Africa.

“Three of the six countries at the bottom of the global energy poverty index are right here in East Africa,” Gramlich, 47, said during an interview last July at the Hyatt Regency in Dar es Salaam, the Indian Ocean capital of Tanzania. “We all know wind can serve wealthy places like Germany, California, and New York, and I think we can also prove it’s a great option for the poorest places in the world — including those at the very bottom of the poverty index.”

Tanzania is just such a place. With 37 million unplugged citizens, it outnumbers all but three other African countries for electricity poverty: Nigeria (96 million), Ethiopia (71 million) and the Democratic Republic of the Congo (61 million), International Energy Agency data show.

For Gramlich, the son of former University of Michigan economist and Federal Reserve board of governors member Edward Gramlich, such numbers are high-octane fuel for an analytical mind. In fact, the complex machinery of African energy markets has piqued his interest since the 1980s, when he was first exposed to the theories of sustainable development and resource economics.

Eschewing his Ann Arbor, Michigan, roots, Gramlich chose Colby College in Maine for his undergraduate education. He studied economics and spent a semester abroad in Brazil applying what he learned about sustainable development, followed by an 18-month stint at the World Resources Institute in Washington, D.C. He entered the master’s of public policy



**Rob Gramlich, back in Washington after an inspirational sabbatical in Tanzania. This article is reprinted from Climatewire with permission from E&E News. Copyright 2017. [www.eenews.net](http://www.eenews.net).**

program at the University of California, Berkeley, honing his focus on electricity markets during the dawning era of utility restructuring, carbon markets, and renewable energy.

In 1995, Gramlich returned to D.C. and the Federal Energy Regulatory Commission, where he ultimately became a senior adviser to Chairman Pat Wood III, a President George W. Bush appointee. When Wood stepped down in 2005, Gramlich accepted a position at AWEA to lead the 30-year-old trade group's policy program.

It was a good match, as U.S. wind energy was beginning its ascendance from a niche fuel championed by green groups and clean energy advocates into the fastest-growing renewable energy sector in the world.

**B**etween 2004 and 2014, U.S. wind power exploded nearly ten-fold — from 6.6 to 61.3 gigawatts of installed capacity, according to AWEA data. Today, U.S. wind turbines account for just over 82 GW of capacity, with an additional 18.3 GW under development, according to the organization's latest market report.

Gramlich rode the industry's fat years (2006-09, 2011-12, and 2014-15) and lean years (2010 and 2013) with a steely focus, including taking over as interim CEO of the trade group just before U.S. wind power entered a tailspin hastened by the expiration of the production tax credit at the end of 2012.

When Tom Kiernan of the National Parks Conservation Association was hired to lead AWEA in May 2013, Gramlich resumed his policy duties, later expanded to include public affairs, regulatory, and research initiatives. The job required what Gramlich describes as a heavy dose of meetings with agencies, commissions, and committees, trade organizations, stakeholders, coalitions, think tanks, and reporters.

Summer vacations usually happened in northern Wisconsin, where five generations of Gramlichs — dating back 100 years — have escaped to a family cabin for rest and relaxation.

But 2016 would be different for Gramlich, wife Merrie and their four children, two of whom are entering college this fall. As a dad, he wanted to expand his kids' world view by traveling beyond the relative comforts of their home in Bethesda, Maryland.

Gramlich also had been putting out feelers to friends and colleagues that he wanted to revisit some of his own formative experiences in sustainable development, particularly questions of how sub-Saharan Africa's wind resource could be converted into low-cost, carbon-free energy.

The opportunity came via a sabbatical program introduced by Kiernan, who at NPCA encouraged staffers to escape the D.C. grind in search of fresh ideas that could inform their work. Gramlich described it as a chance to explore questions “that don't necessarily come from large groups and planning processes, but from committed staff who have ideas they want to run with.”

Gramlich's ideas ran to East Africa, where he fashioned a mix of experiences to broaden his understanding of the region while also bringing a more global perspective to AWEA. The group's membership includes the world's largest wind energy developers and manufacturers, including some who have a vested interest in Africa.

“East Africa is interesting specifically for the global wind industry because there's an amazing wind resource here,” Gramlich said. “There are screaming wind sites along the Rift Valley.”

Yet, he added, coordination and capacity building are sorely lacking in places like Africa. “So there is a need for education. And there is a potentially large market opportunity that global wind companies are interested in critically assessing, and I'm trying to help with that.”

Gramlich has also developed an unabashed view of how sub-Saharan electricity development will go over the next 20 years. It does not adhere to the increasingly popular notion that the continent will be mostly served by off-grid and mini-grid systems that power thousands of remote villages across the continent using mostly solar photovoltaic panels.

While acknowledging the importance of solar-based distributed power across Africa, Gramlich believes the technology lacks the economies of scale necessary to meet the massive electrification challenge facing the continent.

“It's extremely attractive to talk about the leapfrog — the ‘small is beautiful’ aspect of off-grid solutions,” Gramlich said. “But if we're looking for the most cost-effective option for the most people, it's hard to beat the economics of the main grid. People want more than a couple of lights [in their homes]. They want refrigeration and TVs, and believe they will eventually afford them. I don't think most people will pay a lot for limited service.”

Instead, Gramlich forecasts a new wave of private investment in utility-scale power systems — notably hydro, natural gas, solar, wind and biomass plants — whose generation will be sold to state-owned utilities and emerging regional power organizations like the Eastern Africa Power Pool, a 10-state partnership to foster transmission links within and between countries.

“Based on everything I've learned and from the people I've talked to over the past weeks, I think main grid

power is going to serve 90 percent of the population here — maybe within 10 years,” Gramlich said.

**B**ut he also doesn't believe the process will happen evenly or without setbacks, especially as sub-Saharan African governments work to reform centralized utilities and power systems that have traditionally benefitted government officials and the elite much more than the vast majority of Africans.

At the same time, financial solvency and transparency, especially for state-owned utilities, is key to opening African energy markets and establishing a foundation of power purchase agreements between private developers and African governments, Gramlich said.

“The investors in an [independent power producer] will want to know, and they're clearly thinking about, what is an appropriate rate of return” for doing business in Africa, he said. “It's not like selling to American Electric Power. There's going to be a higher rate of return required because there is greater risk.”

Developers are increasingly ready to make the leap, as evidenced by a growing number of wind farms securing deals in countries like Kenya, Ethiopia, and Tanzania, as well as landmark projects like the 310-megawatt Lake Turkana Wind Power Project under construction in northwest Kenya.

In most instances, those projects are being driven both by environmental and economic development priorities. Virtually all East African countries have committed to reduce or arrest greenhouse gas emissions under the U.N. Framework Convention on Climate Change. Clean energy projects — including hydro, wind, and solar — can help advance those goals while also aiding broader development.

Back in D.C., colleagues expressed admiration for Gramlich's interest and willingness to spend six weeks in one of the world's most energy-impo- verished regions.

“I think, bottom line, it shows that Rob is committed to the concept of sustainable development, advancing renewable energy, and taking the time to share his knowledge with others, whether in this country or in other countries around the world,” said Lisa Jacobson, president of the Business Council for Sustainable Energy, where Gramlich was vice chairman of the board of directors until last February.

In a statement, Kiernan said he appreciated that Gramlich was “using his sabbatical to do something helpful for wind,” adding, “AWEA gains too, by engaging with and learning from grid challenges elsewhere.” **TEF**

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