

Transcript: The Future Reset: Ending Energy Poverty

By **Washington Post Live**

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MS. SELLERS: Good morning and welcome to Washington Post Live. I'm Frances Stead Sellers, a senior writer at The Washington Post. And I'm very pleased to welcome today two experts on energy policy. My first guess is Dr. Vera Songwe, U.N. Undersecretary-General and an expert on Africa; and also, former U.S. Energy Secretary Ernest Moniz. A very warm welcome to you both.

MR. MONIZ: Thank you, Frances.

MS. SONGWE: Thank you, Frances, for having us. Thank you.

MS. SELLERS: We're delighted to have you both. So, let me start with you, if I may, Dr. Songwe. Could you give us a global snapshot of energy poverty, where things stand, what populations are affected, and what the kind of repercussions are for gender equity and employment in the areas of the world this is--that are most affected?

MS. SONGWE: Thank you. Thanks again for having us. I think to just talk about what the Rockefeller Foundation has done, and under the leadership of course of Secretary Moniz, is looking at how we can end--this global partnership and energy poverty. And as you asked, and rightly so, what is the global landscape, let me start with my own continent. And I am in Ethiopia right now. Africa accounts for only 3.2 percent of the 2,700-terawatt hours of electricity generated. Asia Pacific of course is 47 percent. South Asia with India is only 5.8 percent, and I think that's why we're looking at it globally, because it's Africa but also South and Central America, it's 4.9 percent. So, when you look at those three--Africa, 3.2 percent; India, 5.8 percent; and South and Central America at just 4.9 percent--you see that there's still large swathes of the global space that is energy poor.

When we talk about it--and let's relate it a little bit to the COVID crisis today, and I think that is one of the reasons the Rockefeller Foundation and Harvard University wanted to do this together [audio distortion] and many others were on this commission, was to say, you know, one of the things that the COVID pandemic has shown us is that if we don't have energy, we can't even solve the health crises. On the continent, for example, we have a lot of hospitals which do not have enough access to energy, and so universal access is a critical part of what we are considering as part of the puzzle for ending energy poverty. That means essentially looking at the whole stream of how you do both generation, transmission, and distribution. And I think one of the things that we have seen in this supply chain is that there is a force line in the distribution piece of the puzzle. And so a lot of the work that Professor Moniz, Secretary Moniz has sort of championed has been around what we can do with this integrated institutional framework, which essentially says how do you bring the whole system, link the generation, link the transmission to the distribution, and ensure that we can get to the last mile, because low energy consumption across the globe cannot give us the kind of building forward better that we're looking for. We meet--less than 30 percent of India, less than 5 percent of China has access in the rural areas to sustainable, affordable electricity. So, this is, I think, a global concern, and essentially what we're trying to understand is how one can do it in a way that particularly crowds in the public sector, the private sector, and ensures that we have the right kind of regulation to do it in a way that is sustainable.

MS. SELLERS: So, before we move on to Secretary Moniz, which I'll do in a second, I just want to ask you about the people's lives you mentioned. Is this a big rural/urban divide, and are we talking about people, you know, cooking on--you know, with wood? How does it affect gender? I sort of would like to get a sense of the personal impact before we move on to Secretary Moniz.

MS. SONGWE: I'm actually glad you asked that question, because we have 23 million women across the world, not just in Africa but across the world, who actually die from respiratory diseases every year because they're using poor cooking devices, and that's the energy linkage.

And so, yes, it is a rural/urban divide as well in many of the African countries. The same is true for South America and the same is true for South Asia. The cities tend to have 70 percent or more access to energy. The rural areas, 20 percent or less access to energy, and the women in particular. And this is where we're also looking at an inclusive and more sustainable design for ending energy poverty, which ensures that we can protect the trees, for example. There's a lot of work that's going on to see how we can restore our green environment, particularly in Ethiopia where we are, but you can do that and ensure that that's going to be sustainable if women still need to go out and look for wood to cook. And so, I think there's a whole other conversation. And I'm sure that Secretary Moniz will bring that in with gas and how we can do better and cleaner cooking stoves.

MS. SELLERS: So, let's talk--turn to you, Secretary Moniz. You're one of the co-chairs of the Global Commission to End Energy Poverty. Could you tell us a little about how the commission was formed, who the commissioners are? And I'll be talking with--we've been talking about the developing world right now, but are we talking about a problem that is also in more developed countries around the world?

MR. MONIZ: Yes, Frances, let me first make a couple of comments expanding on what Vera said. The--as has already been hinted at, we will be focusing on the commission first on electricity. We'll come back to that. But the cooking issue that you have raised is so critical. There is a documentary recently out called Switch On that I would recommend, and it has a--I mean, it's a terribly emotional scene in terms of the medical requirements of women and children suffering the respiratory consequences of indoor biomass cooking. In fact, a doctor said that [audio distortion] all of his patients was women and children with respiratory illness. And until that is addressed and Vera [audio distortion] we cannot have women's empowerment; we cannot have them engaged in the economy until these issues are resolved. So that's very, very important.

Now, on the commission, to go back to that, well, first of all, there are three co-chairs: myself with my hat at MIT where the principal analysis was done; but Raj Shah, who is the CEO of the Rockefeller Foundation, is a co-chair. And Raj particularly emphasizes that the Rockefeller Foundation supported this work because addressing energy poverty is a necessary condition for addressing poverty more generally. So, that really is the perspective that he brought to the table.

The third co-chair, Akin Adesina, is the president of the African Development Bank. And clearly while Sub-Saharan Africa is not the exclusive focus of the commission, it's a major focus. And so, the African Development Bank brings in that perspective of how are we going to bring together the capital to help the kinds of transitions that we have.

The commission was rounded out by many, many others I won't go into by name. But for example, investors in infrastructure like Africa 50, but government and quasi-government officials who will have enormous responsibilities which we will--can be--perhaps come back to--and a number of individuals who have long experience in, for example, initiatives such as Power Africa, which was started in the Obama administration to address the electricity and lighting needs in Africa specifically.

But you're also right that the energy access issue is not one just in developing countries; clearly, that is the major focus. Hundreds of millions of people without proper energy access, one could argue about a third of the global population without adequate energy services. But, you know, right here in the United States, frankly, if one goes to things like the Native American lands, one finds a very, very disheartening lack of energy services in many cases. So, this is a big problem. It's absolutely critical.

And I would just say that, as well, you mentioned briefly COVID. When the commission started just over a year ago, I don't think any of us dreamed that today, because of the COVID crisis, we probably have more people without electricity access than we had a year ago, because many who gained access--you know, these countries always catch the cold first when there's a global event, and the economic impact

has led to many people not being able to afford anymore the access that was so hard won over these last years.

MS. SELLERS: Right, right. Dr. Songwe, you're on this commission, and the goal is universal electricity access, as we said. That's going to involve partnerships between policymakers, utilities, investors. What do those partnerships look like? How are you moving towards them? And what are the barriers in different parts of the world? What are you up against?

MS. SONGWE: We have done a couple of--actually, we're not up against as much as it is trying to see whether we can bring the right coalitions together. And I think first the coalition and the commission is one of them.

Secretary Moniz has already talked about the fact that we have the private sector, the public sector and a lot of--some of civil society with us, and actually the academics as well. And I take for example a partnership that we have for example with REST for Africa, which is under the ENL operation and one of the--also the Global Investment for Sustainable Development Group that was set up by the United Nations Secretary-General Antonio Guterres. Essentially, that brings together a very substantial group of private sector investors with trillions of dollars interested in looking for investments in renewable energy.

And when you look at again the African continent, only 2 percent of global new renewable energy capacity was installed in Africa over the last 10 years. So, for all the conversations that we have around renewable energy, the drop in the cost of renewable energy, and the need for more investment, Africa has only been able to attract 2 percent of that. And I think one of the things that we are now trying to do is understand what is it that is stopping or hindering those kinds of investments.

A big part of it--and that's one of the things the commission talks about when they do--they integrate a development framework is essentially the fact that the distribution, the utility companies, because of--not the appropriate tariff adjustments--and that's your conversation, what are we up against--we're up against the need for affordable, accessible energy versus the need for, you know, financing that is also affordable to build that energy. And I think one of the issues that we're talking about there is, how can we do projects in local currency? When you do a hydroelectric power plant and its financed in dollars but the citizens, rural citizens most often, are paying for that energy in local currency, that is also subject to the variations of macroeconomics.

MS. SELLERS: Right.

MS. SONGWE: The COVID crisis has led to many of our currencies depreciating. For example, it becomes very expensive, hence what Secretary Moniz was talking about. Utilities cannot afford to pay any more of their PPAs. Those contracts get suspended. Energy gets cut off.

So, we need to be able to find some way of doing reflective costs and tariffs. But to do that, we need to move to more local currency financing of a lot of these investments that we're putting in place. Of course, the overall macroeconomic environment is quite an important one to attract more foreign direct investment into those sectors.

But another thing that we're doing and that the commission has stressed and it's very important, is building local technical assistance. And at the Economic Commission for Africa, what we're doing actually is--and we're partnering with the commission now and REST for Africa and others--is to launch what we're calling the Team Energy Africa Audit, which is essentially bringing together all the African industrial manufacturers of energy together to say what can we do as a continental production. There is a Team Europe. There is, of course, the Power Africa that was launched by the United States.

And we're hoping that we can create a cluster in Africa that can respond to Team Europe when they come or respond to Power Africa when they come under the DFC and others to say, you know, we have to do this in partnership. And probably when we do that, we can also then find local insurance companies on the continent that can buy down the cost of this investment. So, I think it's a cluster of things. First, you need to bring in, you know, continental producers. We're seeing that in India, right? We've talked about the low access in India. But increasingly, because there are Indian suppliers of energy, Indian investors, captains of industry in the energy sector, we can see that access is actually increasing at a much faster rate. We believe that we should emulate something like that on the Africa continent, and hopefully in Latin America as well.

MS. SELLERS: Just before I move on, I want to ask specifically, is there an area in Africa, one small model where things are working well that you're trying to broaden? Can you point to one area?

MS. SONGWE: Well, I think that--you know, the attraction of independent power producers on the continent has done really well. Many, many countries that have started that--Kenya, Senegal, of course South Africa has been the leader in this. And we really see a lot of progress. We see a lot of investment. I think that, again, a project that was launched by the IFC but is now rallying many more is the solar power project which has been Scaling Solar. In Zambia we have it. Now in Senegal we have it. In Morocco we're doing something. I think one of the things that we've understood is standardization of these programs, whether they are large-scale programs or small mini grid/off grid programs, those work quite well because then you can standardize it. The investors know what to expect, the countries know what to offer, and it makes it much easier to close on those deals.

MS. SELLERS: Secretary Moniz, could you talk to us about the technological advances, data analytics and other progress that can make a big difference in this area?

MR. MONIZ: Well, certainly the technology progress in providing energy, and in particular clean energy, has been very, very dramatic. The solar energy, wind energy, including the storage that one needs to be able to use the--for example, the solar energy at night as opposed to during the day, the rapid cost reductions here, I think, are going to provide dramatic opportunities to have support for Africa to build out quite rapidly of the new energy technologies.

But a couple of points I do want to emphasize. We have to recognize--and one of the--one of the pillars really of the commission's work has been that we cannot look at off-grid and on-grid solutions as kind of two different things. We need the integration of on- and off-grid solutions, because the issue--it isn't about ideology in terms of how one best to--just to have distributed generation or the like; it's about universal access. And the universal access solutions are going to have to be looked at in an integrated way

with the combined urban and rural populations of these countries. Technology is going to allow that to happen more easily.

But I think actually it's probably worth stating, that just like everywhere in the world, the projections, the demographic projections, are for continued enormous urbanization in Africa. So, I think we need to not have, you know, everything looks like a nail because I have a hammer. We have multiple technologies, multiple ways of integrating them. Using IT--you alluded to IT, for example--using IT to really serve the population that needs universal access.

In saying that, again, something you alluded to earlier, Frances, maybe we'll come back to it, but the reality is--and frankly, when I speak with Africans who are very knowledgeable about the developments in energy that are needed--that would include Vera--the--they all say that, look, we have to have in Africa, Sub-Saharan Africa, a real focus on economic development, on industrialization. And so, that's going to require as well, certainly for some considerable period, more internal utilization in Africa of the enormous natural gas finds that have been happening in both West and East Africa.

So, I think we have to keep in mind the goals: economic development, universal access, and of course, as low-carbon a trajectory as can be--as can be realized in putting together a coherent solution. And again, universal access, integration of on- and off-grid, focus on development, and as Vera said, creating financially viable systems to provide the electricity, the energy, not with a short-term focus but with a long-term focus. All must come together. And it will be technology, but it will also be things like significant elevation and best practices, et cetera, in terms of regulation. Without stable, predictable regulation, it would be very hard for the kind of load-serving entities that we need to really put in the capital investment to serve the people's needs.

MS. SELLERS: So, just quickly, if you can--and these are all big questions--tell me where the private sector fits in here. How do we make sure that they act in the interest of broad development rather than their own interest? What's their role, and how do you regulate their investment?

MR. MONIZ: Well, the private sector, first of all, they're absolutely essential, because otherwise it will be very hard to see the capital accumulation that one needs to realize the development that we are hoping for. But again, I don't see--it's not different in Africa or anywhere else. If it's private capital coming in, some certainty for a substantial period--call it 20 years--a concession being awarded, for example, with specific milestones for universal access, reliable access to electricity, that has to come.

And frankly--and Vera could comment on this probably more expertly than I--but let's just say those conditions are very uneven at the moment in Sub-Saharan Africa. I think we need to bring the best practices, which have been demonstrated in various places to bear. For example, one of the recommendations of the commission is to establish an African school of regulation, maybe at one of the universities in Africa, for example, and really bring a kind of cutting-edge experience of regulation across

the globe to bear so that there can be more uniformity.

Uniformity across countries will also encourage other important developments, such as regional power pools, where several countries can come together regionally and provide more efficient, more reliable, more affordable electricity as a regional effort. Clearly, if you have different policies, different rules across boundaries, that becomes very, very difficult. So, there's a lot to do. But by the way, we are very encouraged in terms of progress towards this regulatory school, for example, of being founded. We'll see, but it's looking quite promising.

MS. SELLERS: We're getting a little bit short of time, but I would like to be able to ask you a couple of questions that have been sent in by readers. And I'll start with you, Dr. Songwe, if I may. So, I'm going to read this. This is Barry Moore from Virginia who asks, "How would you characterize China's economic influence and impact in Africa?"

MS. SONGWE: No, thank you for that question. And let me use that question to answer a little bit of what we're talking about, about gas.

MS. SELLERS: Right.

MS. SONGWE: China--Africa has decided, you know, we're going to go to net zero. However, between now and getting to net zero, Africa still needs to grow. We need to, you know, ensure that our economies have the right energy productive capacity to grow.

One of the areas where Africa has an abundance of course of raw material for energy production is gas and hydro. Hydro, China is one of the leading, you know, builders [audio distortion] and so, I think that one of the things that we're doing is working with China, working with the French, working with the Americans to see how we can ensure that we do build the right kinds of hydropower plants on the continent, but also that we begin to [audio distortion]--

MS. SELLERS: I think we have a little interruption in our connection, which we're trying to rebuild at the moment, so please stay with us.

MR. MONIZ: Well, Frances, maybe I could inject a little comment on China as we're waiting for Vera to come back.

MS. SELLERS: Yes, please do, please do.

MR. MONIZ: And I think that one of the issues is that I think as many countries--Vera mentioned several--come in and be part of the build of the infrastructure, that I think it's very important that those [audio distortion] lot to build up local capacity, use local workforces. Frankly, I think China may be not quite there in terms of the necessary building of indigenous capacity.

MS. SELLERS: I think we have Dr. Songwe back with us. Did you want to finish your--no. Okay, we do not. So, thank you both very much for joining us today. I'm sorry about that little interruption at the end of the segment, but it was a fascinating conversation. I will be back in a few minutes [audio distortion]. Thank you very much to you both.

MR. MONIZ: Thank you.

[Video plays]

MS. LABOTT: Hello, I'm Elise Labott of American University, and today we're talking about the Global Commission to End Energy Poverty founded by the Rockefeller Foundation to galvanize global action behind the acceleration of delivering sustainable and cost-effective electricity access to hundreds of millions of underserved homes and businesses. I'm joined by Ashvin Dayal, who leads the Rockefeller Foundation's Global Power and Climate Initiative; and Rob Stoner, deputy director for science and technology at the MIT Energy Initiative, which is working with Rockefeller to produce high-quality research data and evidence behind these goals.

Ashvin, let's start with you and talk about the ties between poverty and the lack of access to energy. I hear you at Rockefeller call access to energy the so-called global thread that kind of weaves together economic growth, human development, and environmental sustainability.

MR. DAYAL: Well, thank you, Elise. Yeah, I mean, I think if you--if you think about the relationship between poverty and economic development and the importance of energy as a sort of a driver and enabler of that has only grown in an increasingly interconnected world.

If you think about life as a farmer 50 years ago versus today, the pathway to upward mobility to gain more productivity, you need to have access to the cold chain for--for cold storage for your produce, or for machinery for processing. So, you know, electricity and access to electricity has become a sort of increasingly important facet of economic mobility, of economic inclusion. And when we look at the sort of Venn diagram between energy poverty and poverty, it's increasingly overlapping. And that's why we say, you know, if we really want to end poverty in the 21st century, we're going to have to end energy poverty.

The question then becomes how do you do that. And this is where we see just enormous transformational potential today, especially because of what changes we've seen with technology and price of technologies over the last 10-15 years, just opening up a much more diverse set of options, especially for low-income economies that can't necessarily afford to build out a traditional centralized grid everywhere and as quickly as it's needed in today's economic context.

MS. LABOTT: Yeah, I think a lot of people don't make the connection between poverty and access to electricity, and we'll talk a little bit more about that. But, Rob, your focused on identifying and addressing the barriers to achieving universal and economically impactful electrification. So, tackling the system that prevents energy access and delivering that roadmap to affordable and reliable energy, it's got to be, I would think, a kind of multisectoral mission.

MR. STONER: It is. I mean, the electricity system is gigantic, even in--even in small countries with small electricity systems, and it spans a range of sub industries. We're focused largely on the African problem. And Africa's distinctive because many of the utilities--in fact, almost all of the electric utilities are structurally insolvent. They lose money on every kilowatt-hour of power they sell in aggregate. That's a--that's a very challenging problem.

And the reason that happens is that the people they're trying to serve at the other end of the line are poorer, by and large, and can't afford to pay the price. And there's political pressure that forces the electricity companies to drop what they can charge, so-called tariffs, which creates a lot of distress for them as well. And so, a lot of the challenge that we're dealing with, of providing electricity access to everyone, is improving the business condition of those electric utilities. And that means that you have to take advantage of opportunities to use novel technologies like solar, for example, that's finding its way into rural communities to make it less expensive for the utilities to serve people who live in far-flung areas. It's sort of the low--or rather the last mile problem that we used to talk about in telecommunications, and it's very much the problem in the electricity system.

MS. LABOTT: So, Ashvin, this brings us to the work of the Global Commission to End Energy Poverty, or GCEEP, as we like to shorthand it. So, as you work towards an inclusive and equitable recovery from COVID-19, I know the commission has prioritized universal electricity access for economic development. And talk to me about the economic case for such a massive investment in energy as a key priority when the needs across the board for COVID recovery are so great.

MR. DAYAL: That's a very fair question. And I think clearly the needs in the context of the COVID-19 crisis are enormous and they're diverse. We see the challenge particularly through two major lenses.

There is obviously the immediate and ongoing health crisis. This is not just a crisis for today. It is going to take several years to see the rollout of an adequate treatment regime and vaccines across the world, especially in some of the least-developed markets or in groups who traditionally tend to get excluded from access to vaccines. And that's a--that's a critical, critical issue that we have to address.

But if you think about how the COVID crisis has been experienced in so many parts of the developing world, it has been experienced primarily as an economic crisis. When you've seen, you know, economies locking down for weeks on end, when you've seen a massive contraction in industrial and economic activity, when you've seen access to markets disrupted, the data that we've been gathering with partners around the world for the last seven, eight, nine months has been, you know, frankly, quite depressing and distressing. India a few--a couple months ago announced a 22-percent reduction in GDP. And we've seen this play out in the most sort of impactful way for some of the poorest people around the world.

The Bank, the World Bank, using an expanded definition of poverty, is estimating that as many as half a billion people could go back into poverty as a result of this crisis. So, when you look at the crisis from its broader economic perspective, the question then becomes, well, why energy? Well, energy because it is a key part of the economic system that can create opportunities in the near term and then create lasting economic growth.

As Rob mentioned, we've seen enormous innovation in technologies like solar, storage, that makes distributed renewables an increasingly viable part of the ecosystem of electrification. Now, these systems can be rolled out quite quickly. In order to roll them out in local areas, they create jobs in the near term for construction and installation. They create ongoing jobs in terms of maintenance. And of course, they support productive use activities within local economies, whether that's for agricultural processing or off-farm activities.

So, what we believe at this point is that this is an investment not just in addressing a crisis for today and tomorrow, but it is, as has often been the case in the moments of great crisis, an investment in the kind of infrastructure that's going to serve us for the next 20, 30, 40 years and allow hundreds of millions of people to lift themselves out of situations of poverty or underdevelopment. And that's why we think energy, at the heart of a response to COVID, is so critical and so important.

MS. LABOTT: So, Rob, the commission is advancing MIT's concept of this integrated distribution framework. Talk to us about these guiding principles that are informing the solutions for delivering affordable electricity and this kind of investment based on viability of distribution and grid and renewable energy.

MR. STONER: Well, right. So, our key word here is "integration." And we're talking about integration in several dimensions--integrating across technologies, certainly, and off-grid as well as on-grid technologies is part of that; integrating across urban and rural communities, integrating across different parts of the value chain involved in electricity.

The idea with the integrated distribution framework is pretty straightforward and will remind people of what works in utilities that we have in the advanced economies, and that is to say a recognition that you have to serve everybody; you can't pick and choose. And it's especially important in developing countries because one way to make a utility financially viable very quickly is to drop all the poor customers that are expensive to serve and focus instead just on commercial and industrial customers. But we've insisted in this integrated distribution framework that they have to focus on everybody, and furthermore, that they have to combine, as I was saying, the use of on- and off-grid technologies in a way that makes sense.

One of the challenges with off-grid technologies is that they're typically sold by small entrepreneurial companies who have a good idea for delivering them, but there's no guarantee when they sell them to a rural farmer, for example, that they're going to be there in the future to continue to provide service. And so, we've talked about integrating that kind of off-grid delivery within the sphere of the regulated utility--in other words, bringing these businesses together, in a way. That doesn't mean integrating them into a single business necessarily, but into a single enterprise that collectively has an obligation to serve everyone for the long term. That means that if the off-grid provider fails the utility, that it is working--or it is integrated with in providing service takes over as the provider of last resort. And that's critically important when you're talking about ensuring service, because delivering on value in the economy really requires reliability in service and cost. So, this is--this is an opportunity to try to use new technologies and the energy of different parts of the private sector to make the utility work effectively.

MS. LABOTT: And we're running out of time, but I know you have some first-action countries, and I

want to make sure that they're recommended for full or partial implementation of this IDF. I want to make sure we mention there's a Rwanda, Uganda, Colombia, Nigeria, and the Odisha State in India. And we'll be looking for more information on that.

Ashvin, as we close, government and philanthropic groups like Rockefeller are recognizing the ties between poverty and lack of access to energy, but we've seen a kind of collective action is slow and incremental. How do we engage with these governments and global institutions to support adoption of these principles and convince them that universal access to electricity is--to those in need is the single best way to fight poverty?

MR. DAYAL: Well, I mean, I think often the case isn't that governments needs convincing. They need resources and they need support. You know, there are 800 million people who are unconnected to the grid. There are probably about 3 billion people who lack access to reliable energy or electricity services, and that's holding them back. It's suppressing their economic opportunities. So, I think, you know, what it really needs is a sort of a much more comprehensive public-private partnership where we can bring concessional capital, we can bring subsidies into play, along with opportunities for the private sector to come in and invest.

Let's not forget that no country in the world has achieved universal electrification without heavy investment by the public sector and unlocking opportunities for the private sector. And we really need to adopt the same principles as we look at some of the developing economies that this report speaks to. And that's why this integrated distribution framework is really so important, I mean, because that is the framework by which I think we can produce and create really large-scale partnerships that will allow these economies to achieve universal electrification, firstly more quickly because it's so urgent, more cost effectively because resources are precious, and more impactfully because we'll really focus on serving productive needs of the economy.

MS. LABOTT: Well, I think this discussion shows that it's not just powering our homes but communicating with the outside world, lighting streets for better commerce, and helping business operate--electricity really the foundation on which modern communities and commerce run and thrive. So, something no one should have to do without.

Ashvin Dayal, head of the Rockefeller Foundation's Global Power and Climate Initiative; and Rob Stoner, deputy director for science and technology at the MIT Energy Initiative. Thank you for joining us. Back to the Washington Post.

[Video plays]

MS. SELLERS: Welcome back. If you're just joining us, I'm Frances Stead Sellers at The Washington Post. I'm very much looking forward to taking this conversation about energy to the local level with two mayors, two U.S. mayors, who've been leading the charge for renewable sustainable energy. That's Jon Mitchell of New Bedford Massachusetts who's also the chair of the Energy Commission at the U S

Conference of Mayors; and Sam Licardo of San Jose, California. A very warm welcome to you both.

MAYOR MITCHELL: Thank you, Frances.

MAYOR LICARDO: Great to be with you, Frances.

MS. SELLERS: We're delighted to have you. Let me start with you, if I may, Mayor Licardo. San Jose is one of the largest cities that's got an all-electric mandate in the works. Can you talk to me a little bit about what that mean for your consumers, both residents and businesses?

MAYOR LICARDO: Well, for us, the important thing was first making sure we could green our grid, because if we're going to push folks toward using electric over gas, we needed to make sure the sources of electricity are also green. So, we adopted a community choice energy program a couple years ago-- became the largest city in the country to do so--that really enables our residents and businesses to choose their source of electricity. What that's done is really shifted us considerably. We're now consuming with 330,000 users now across more than a million residents--consuming about 86 percent of our electricity is GHG-free. It's going to be 92 percent next year. So that's a really important first step, is greening the grid, as Jon's doing out in New Bedford.

The second step now is then pushing economic activity onto the grid from gas, whether--in our case in San Jose that meant electrifying our buses at the airport, electrifying train systems, and then, of course, electrifying buildings. And so, we're the largest city in the country to pass an all-electric mandate on new construction of buildings to really try to, again, push the economy toward this much greener grid.

We had initial challenges. Certainly, we know that there is some new technologies that needed to be tested and so forth, so we needed to give folks time to make those adjustments. But we think the development community has really come along, and they appreciate that they can actually save a lot of cost up front and not having to install all that gas infrastructure.

MS. SELLERS: What does this do for energy costs, electricity costs for your average consumer there in San Jose?

MAYOR LICARDO: Well, actually, through the San Jose Clean Energy Initiative, we're able to provide electricity, procure electricity at a cost slightly below the cost of the incumbent investor-owned utility, PG&E. And we're able to do that because we're not burdened with legacy contracts that those investor-owned utilities have from decades ago when clean energy was much more costly. Today, we're able to procure solar and actually we're investing in new solar generation at a much lower cost than they were 15 years ago.

MS. SELLERS: And just before we move over to Mayor Mitchell, talk to me just briefly about community choice energy aggregation and what that means in your community.

MAYOR LICARDO: I'm sorry, Frances, that was for me, not for Jon, just to be clear?

MS. SELLERS: Yeah, yeah.

MAYOR LICARDO: Okay, thank you. So typically, the way it's done out in California, we have investor-owned utilities that procure, generate electricity, purchase electricity in large wholesale contracts, and then distribute it. We've essentially taken over the wholesale generation business from PG&E here in San Jose, and other cities throughout Northern California have done it, as well. We now have about 10 million Californians that are benefiting in some way from community choice energy programs. So, we procure the energy. The investor-owned utility owns the wires, and they distribute it. And we're able to procure it at a much lower cost, and we're able to reap those savings publicly that we can then reinvest in energy savings in various ways--for example, reducing costs for our residents, be able to go solar, or being able to invest in more innovative technologies--for example, using hydrogen for fuel cells.

MS. SELLERS: Mayor Mitchell, if I may come to you now, you, as I said, are the chair of the Energy Committee on the U.S. Conference of Mayors. You met in July, I believe. What were some of the key takeaways from that from a sort of countrywide perspective as we move towards more renewable and sustainable forms of energy?

MAYOR MITCHELL: Yeah, so thanks for the question, Frances, and thanks for having me. And just want to give a shoutout to Sam Licardo, who's been such a fabulous leader in this space, among the biggest cities in America.

So, we're at an interesting point now in the country obviously with the president transition going on. Over the last few years, despite the lack of attention to reducing the carbon footprint of every city in town, large and small across the country on the part of the federal government, we have seen cities make progress still. We're at a point now where the vast majority of cities have made the transition to LED lighting. They've retrofitted many of their major municipal buildings and have reduced waste and have done all the things at the municipal level that we expect mayors to be doing despite the countries opting out of Paris.

But we're at a point now where we're seeing, based on U.S. Conference of Mayors surveys, is that mayors want to do more still. They are prepared to do it. And whether it's in the generation side, particularly going forward with more solar, or in efforts to reduce consumption by retrofitting buildings, or transitioning to electric vehicles in their municipal fleets, or promoting similar practices in the private sector, we're ready. But we need a federal partner to accelerate those efforts. And I think--so it is timely that a new administration is coming in.

You had on the earlier segment former Secretary of Energy Moniz, who was great with cities, and he understood that the federal government could be a very constructive partner in advancing our efforts, whether it was in--through grant programs that increased the capacity of especially smaller and mid-

sized cities to understand how to reduce their footprints, to the facilitation of the energy efficiency and conservation block grants, which is something that will be before Congress very soon.

So, we're at an auspicious time right now, but there has to be a thorough federal willingness to participate at this point, and so we're all obviously hopeful that the new Biden administration will be there with us.

MS. SELLERS: So, thank you for talking--could you also talk to me a little bit about New Bedford? You've been a leader in solar and offshore energy? Could you tell us what lessons you have learned locally that has informed your discussion on this broader national level?

MAYOR MITCHELL: Well, right. So, a few years ago we saw the opportunity to establish ourselves as a leader in energy efficiency and conservation as having multiple benefits. Obviously, there's the potential to--for us to save on electricity costs, so we don't ride into the development of solar on--in municipal buildings as well as in public spaces, especially in former landfills and including one superfund site.

We had--at one point The Wall Street Journal said that we had--New Bedford had more installed municipal solar capacity per capita than any city in the continental U.S. I guess Honolulu beat us, but they have a little more sunshine than Bedford, so it wasn't exactly fair. But we've made a lot of progress in the waste space. We've doubled our recycling rate by converting to compressed natural gas garbage trucks that were automated, and that really boosted recycling and got trash off the street. We had built up the largest electrical vehicle fleet in Massachusetts.

And you know, we promoted this greener ethic in the city through our efforts because we take--even in a city of only 100,000, we take--we want to cultivate the idea that we should be seizing responsibility in our corner of the world for reducing our carbon footprint and doing our part to combat climate change.

At the same time, New Bedford, which is the largest commercial fishing port in the United States, is pivoting in the direction of offshore wind. The offshore wind industry is going to arrive in earnest, we believe, in the next couple of years, arrive from Europe where it's been a maturing industry for the last quarter century. And so, there will be a big ramp-up of that, and new Bedford is the closest industrial port to many of the places where windfarms are going to be built.

And so, you know, those efforts with respect to offshore wind, advancing the wind industry as it's just getting here is, again, all of a piece. We want to be seen as a place not that's older and industrial and gritty, but forward-learning, green, progressive. And in that way, it certainly helps the city's brand and makes our residents feel like they're part of something bigger.

MS. SELLERS: Thank you. And, Mayor Licardo, I believe your city council is about to vote on a natural gas ban maybe December the 1st with very few exceptions? What's that going to mean for your city? How will it affect the grid?

MAYOR LICARDO: Well, certainly we know it puts more demands on the grid, and so we really have to focus on resilience, because that's been a big challenge for us with wildfires and power safety shutoffs and other issues that we've had out here in the grid. And so, it really means we need to push the

regulators and certainly investor-owned utilities to make the investments they need to make to provide a resilient grid.

As I think many cities are moving toward electrification, I think that's going to be an enormous focus for us, because, frankly, the grid hasn't caught up with where a lot of cities are. And look at the great work that John's doing out in New Bedford. It's certainly a leading effort, but there are many cities following that path. And so, we're going to need a really national strategy around grid resilience that hadn't emerged from the last administration.

MS. SELLERS: Right. And, Mayor Mitchell, what does your experience in New Bedford tell you about these innovations in terms of job creation?

MAYOR MITCHELL: Well, certainly in the offshore wind space that's--that is going to be the source of literally tens of thousands of jobs on the East Coast in the next few years. And you know, the job creation potential is obviously a strong rationale for promoting that industry in addition to its climate change benefits.

But we also know that even at the municipal level for instance for the solar projects that we've done, it's created a number of local jobs for folks who--especially during a time of right now of economic uncertainty, it's offering the possibility for jobs at good wages, and both among installers as well as assemblers, of the solar parks that are continuing to be built here.

But we also know that by reducing electricity costs, it benefits all businesses. And you know, some businesses are obviously more--industries are more energy intensive than others. But the more that we can drive down costs while being greener, it certainly helps everybody. The healthier we are, the lower we can reduce the cost of energy as a major input, you know, the more likely it is that jobs will be created.

MS. SELLERS: Thank you. I have a question here from our audience that I would like to read to you. It comes from Pete Bull, from New York who asks, "What is the forecast for battery storage innovations that could lower the cost of solar for residential and business alike?" And, Mayor Licardo, why don't we start with you? I understand that San Jose has set ambitious goals when it comes to building standards.

MAYOR LICARDO: Yeah, you know, I think everyone is hoping and waiting for battery storage technology to evolve quickly. The good news is, is it has been evolving quickly because we need those costs to come down dramatically to make battery storage more realistic for the creation of microgrids that would rely entirely on renewables like solar, and then be able to store the energy locally in a distributed way to obviously reduce dependence on the grid.

In fact, we're actually building a microgrid right now with Google in the center of our city that we hope will be a great example for cities throughout the country. That will provide resilience and obviously if we're relying entirely on renewables like solar, then we won't be omitting any greenhouse gas emissions.

That's the gold standard. We need batteries to come along quite a bit further, and so, in the meantime we're going to need some bridge technologies to be able to develop those microgrids that are going to be essential for us to really achieve our renewable future.

MS. SELLERS: And, Mayor Mitchell, maybe you could talk to me specifically about New Bedford and then talk about this issue again across the U.S. from your perch at the U.S. Conference of Mayors.

MAYOR MITCHELL: Yeah, I think--well, I think it's the same here as it is in San Jose, and Sam is exactly right. It is--battery storage in many ways is the holy grail of renewables in the future. If we can--if it can be done efficiently, it will open up all sorts of new opportunities for distributed energy systems.

I will just--I agree with everything that Sam said. I would just add one other point. We are reminded of the need for renewable distributed energy by way of microgrids every time we've had a natural disaster in this country. If you think about the set of hurricanes that hit the East Coast just a couple of years ago and some of the--some of the disasters that happened as a result of--tragedies that happened as a result of the loss of electricity to critical facilities like hospitals and nursing homes and other facilities, you think that if those places had access to microgrids that were sourced by solar or wind, that they would have literally--might have literally saved lives. And so, you know, it makes us more resilient. And the microgrids with effective battery storage would make us more resilient along several dimensions, I think.

MS. SELLERS: Yeah, that brings me to a question for Mayor Licardo about the partnership you just--or the customer ownership of PG&E, which I think is a project you've talked about. What does that look like in California? Is it a blueprint for the rest of the country?

MAYOR LICARDO: Well, the truth is, the rest of the country is actually well ahead of us on this. There are about 900 customer-owned utilities throughout the country. Typically, they're pretty small utilities, often rural.

And so, we're proposing creating the largest customer-owned utility in the country here by essentially trying to take over PG&E with the ownership of the customers. Frankly, we did not succeed through the latest battles. The company's been successful in retaining corporate and shareholder ownership through the last bankruptcy.

You know, the good news is, we know that they're pushing in some ways to do--to correct some of the sins of the past. And some of the sins, I mean, are for example failing to invest sufficiently in grid resilience and which results in, of course, the wildfires and enormous safety hazards that have really devastated communities out here with wildfires.

But we also know the bad news is that this is a company that's already still teetering. They have an enormous amount of debt. They may be back in bankruptcy again and I suspect we'll be back in the legislature urging them to return control of the company to customers. There's actually been some legislation that's passed that could make this easier for us in the meantime. And so, we are waiting, ready. We've got more than 200 local public officials signed up saying we're ready to push. We think it's time for customers to own the utility that they're paying for.

MS. SELLERS: So, are there other specific regional models you're looking at, Mayor Licardo, when you talk about this? You said other parts of the country were ahead of you, but...

MAYOR LICARDO: Well, we--yeah. I mean, I think, you know, the rural cooperative has been a model of utilities that has existed for--you know, for decades. And what we're learning about it is that, first, they actually have access to lower cost of capital than investor-owned utilities do. So, when they need to make those safety investments and the resiliency investments and the investments in, you know, microgrids, for example, they can do so by going to capital markets at lower cost. And they're not obligated to be paying shareholders dividends and returning large returns to shareholders in share prices. And they're also not paying executives quite the same price as--or the same salaries that many of those investor-owned utilities are. And so, we think there's a lot of efficiencies in the old model that probably need to be explored more.

MS. SELLERS: I do want to talk to you both about the enormous changes we've been through this year, and all of our cities across the country have suffered. And maybe, Mayor Mitchell, you could talk to me about the impact of COVID on your city in New Bedford, particularly, and also no the energy sector.

MAYOR MITCHELL: Well, it's--you know, it's been a struggle here as it has been everywhere else. You know, New Bedford, you know, relatively speaking, has a large industrial workforce, as I mentioned. We are the largest commercial fishing port in the country, but we're also the center--the largest center of seafood processing in the United States. And so, as a result, a big portion of our workforce is not in any position to work remotely.

You know, if your job is on a factory floor or on the deck of a scalloper in the North Atlantic, Zoom doesn't do you a whole lot of good. And so, it means that we had a lot of people--as we still do--going to work. And so, that certainly raised the degree of difficulty here higher than I think most places. We have large workforces in buildings not taking any time off as a result of the pandemic. So, and we had to take a number of steps to mitigate risk.

We've put in place a set of workforce--workplace safety precautions or sort of an OSHA-like set of rules that early on separated folks out on--especially in seafood processing plants. And we looked at the experience of many cities in the Midwest that had meatpacking plants, and we envisaged a similar scenario here. And so, we tried to get out ahead of that, and I think we did successfully. We didn't have any major outbreaks in those plants.

We did some--we took some steps to prophylactically test the fishing crews before they went out to sea. We--you know, we also did a few other things that were a little bit different from everyone else. We happened to be the city that has one of the largest suit manufacturers in the country, Joseph Abboud, which, you know, sort of took it on the chin with the pandemic. There aren't too many people buying men's suits these days. But they retooled to make masks, and we entered into an agreement with them in

which they would make masks for all of our city residents that we gave out for free. So, I think we're the first city in the country to have done that. We've distributed roughly 140,000 masks at this point through a number of distribution areas, and I think just the pervasiveness of mask wearing here has certainly helped our cause.

So, a number of things that we've done along the way like that to try to just get ahead of the virus. We still--I mean, like as it is in San Jose, as it is everywhere, there's still a ways to go. And you know, we're hopeful about the vaccine. It's a light at the end of the tunnel but--vaccines plural--but, you know, we all know that's a long tunnel at this point.

MS. SELLERS: Mayor Licardo, thank you very much. And, Mayor Licardo, I think we have time for just one last question. And tell me about San Jose, briefly if you can, the impact of COVID. You went under a new partial lockdown, I believe, or you are just about to. It was announced yesterday.

MAYOR LICARDO: Yeah.

MS. SELLERS: What impact is that having on your city, and more broadly on this question of energy and renewables? I'm afraid we have to be quick.

MAYOR LICARDO: Well, I think what we're seeing is certainly the problems are in the cities but the solutions are as well. You know, if you talk about energy, 70 percent of GHG emissions come from cities, and we see, you know, innovators like Jon in New Bedford that are really leading the way.

Similarly, I think with COVID, I think we're seeing a lot of really interesting innovations emerge from cities. We were the first city in the country to mandate an eviction moratorium. In LA, they're testing using really rapid low-cost antigen testing in a way that I think could be really transformative if we're able to broadly adopt it in a way that can help us predict outbreaks in advance. You know, what we're seeing in cities throughout the country is folks are stepping up. A lot of mayors are really willing to take risks because they know the consequences are too great if they don't. And I hope that now with a new federal administration we're going to have a president and an administrative that's going to embrace the innovation that's happening in cities throughout the country to address these crises.

MS. SELLERS: Mayor Licardo, Mayor Mitchell, thank you both very much for joining us.

MAYOR MITCHELL: Thank you, Frances.

MAYOR LICARDO: Thank you.

MS. SELLERS: Well, it was delightful to have you. I'm very pleased to have learned about your two cities. Thank you.

MAYOR LICARDO: Thanks, Frances.

MS. SELLERS: We have a great lineup coming up for next week, so please mark your calendars. On Monday, President Obama will be at Washington Post Live at 11:30 in the morning Eastern to talk about

a Promised Land, his new book, his memoir. It s the first live online interview he will do on his book tour, and it will be with my colleague Michele Norris and also Elizabeth Alexander of the Mellon Foundation. She is the president. So that's 11:30 on Monday.

And then, at 1:00 p.m. on Monday we have my colleague Bob Costa talking to Anthony Fauci about the next steps in the COVID crisis. So, please make sure you have both things on their calendars, and we'll look forward to great conversations. Many thanks for joining us today. I'm Frances Stead Sellers.

[End recorded session.]
