

RALPH NADER RADIO HOUR EP 272 TRANSCRIPT

Steve Skrovan: Welcome to the *Ralph Nader Radio Hour*. My name is Steve Skrovan along with the man of the hour, Ralph Nader. Hello, Ralph.

Ralph Nader: Hello. This is a great program to our listeners.

Steve Skrovan: It is. I just want to mention that David Feldman, our co-host is off again this week. So, security is the theme for today's show. We're going to talk about it the context of the military and also about potential cyber warfare against our energy grid. First up, we welcome award-winning Journalist, Andrew Coburn, who writes about defense and national security issues. In fact, in the Reagan era, he uncovered the hollowness of the so-called Soviet threat and finds that today's threat inflators have equally little regard for the truth. This has become significant in the last few weeks with the renewed tensions between the U.S. and Iran. The article in *Harper's* [June 2019 Magazine] though that attracted Ralph's attentions is entitled "The Military-Industrial Virus: How bloated defense budgets gut our armed forces." Now personally, I'm always struck by how presidential candidates every four years talk about rebuilding our military, which makes me curious about when it actually fell apart, especially since we spend more money on it than the next 10 or 12 countries combined. And regular listeners know that Ralph is always pointing out how the Pentagon budget never gets audited. Well Mr. Coburn makes the counterintuitive case that the more we spend on the military, the weaker we actually get. So we'll find out what's behind that paradox in the first half of the show. In the second half of the program, we turn our attention to cyber-security. Some of you may remember a few years back when we interviewed renowned TV journalist, Ted Koppel, who'd written a book [*Lights Out*] about the vulnerability of our electrical grid, and how if it were attacked, it would be very hard to find out where that attack actually originated. On the program today, we welcome cyber-security expert, Joel N. Gordes, to see if that situation has improved at all in the intervening two and a half years. We'll find out why he is not a fan of our so called smart technology. As always, we will take some time out in the middle to check in with our *Corporate Crime Reporter* Russell Mokhiber. And if we have any time at the end, we'll try to answer some listener questions. But first, let's find out how bloated defense budgets gut our armed forces. Andrew Coburn is a journalist who has been covering defense and national security issues since the height of the last Cold War and has published numerous books on these topics. Now he is the Washington Editor of *Harper's Magazine* and the author most recently of *Kill Chain: Drones and the Rise of the High-Tech Assassins*. His latest article in *Harper's* is entitled "The Military-Industrial Virus: How Bloated Defense Budgets Gut Our Armed Forces". Welcome to the *Ralph Nader Radio Hour*, Andrew Coburn.

Andrew Cockburn: Hey, it's great to be with you.

Ralph Nader: Indeed, Andrew. And I want to caution our listeners not to be so overwhelmed and discouraged by what you're hearing. And consider just three things in order to understand what Andrew Coburn is writing about. One is that control of Congress can turn a lot of this horrific military budget and the vicious spiral it's in around. Second, the military budget has not been audited for decades. They had a preliminary one that cost \$400 million a year ago, but it still hasn't met the congressional test for a full audit. And the third is when you hear the kind of mega-billion-dollar figures Andrew is going to point out about these boondoggle weapon systems, think of all the schools that could be renovated, all the highways, buildings, bridges, public transit can be

upgraded or constructed in your communities. Think of the sewage and water systems that can be improved and made more safe in terms of drinking water, because the drain of the military budget, which is 53% of what the Congress spends every year, is leading to the wreckage of what they call our crumbling infrastructure. Okay, so, as you know, Andrew, President Dwight Eisenhower not only coined the phrase military-industrial complex, but he also gave a speech in April 1953 before the National Association of Newspaper Editors in which he was the last president to say that X number of tanks is equivalent to Y number of schools that aren't being renovated and the kind of list that I just pointed out. No other president has done that intermodal comparison. And now comes your great article, "The Military-Industrial Virus: How Bloated Budgets Gut Our Defenses"; namely a massively wasteful defense is also a weak defense and a reckless defense. Tell us the thesis of this article that appeared in *Harper's Magazine*, which listeners should read if they don't already.

Andrew Cockburn: Well I certainly hope they do. The basic thesis is that as I said earlier, counterintuitive, you'd think at least the more money spent on defense, the least but stronger, more militarily stronger or better we are, but that is in fact not the case. I compare the whole defense establishment, the military industrial congressional academic intelligence complex, think tanks thrown in, to the . . . it's like a sort of giant parasite, a virus as we say in the title, that exists only to feed itself and grow. And the point is that when you wave around 700 and whatever it is, \$719 billion as of now, this year, for the defense budget, I mean people . . . there's kind of a gathering rush of eager people, eager to help themselves to that money and they do that by offering and proposing to build and building weapons systems that are so loaded down, so gold-plated, so sort of unwieldy, but they don't actually work that well. They always proposed to build a wonderful fighter plane that'd be able to do all sorts of amazing magic things--be invisible, take on 20 enemies at once, so the Congress approves that. And then they say we're going to build a thousand or two thousand of them. And then turns out that that they never turned out to work that well and be that great. They tend to break down all the time. And thirdly, even with the bloated defense budget, they can never build as many as they said they were going to because the cost overruns are so huge and so you end up with a much smaller number of planes that, as I say, can't do the job. And so, they military actually inexorably shrinks. Amazing as it may be to your listeners, our military is actually shrinking despite these unprecedented budgets.

Ralph Nader: You mean in terms of weapons, but not in terms of presence, in terms of the American empire with bases in over 100 countries and operations in a dozen countries.

Andrew Cockburn: Well right. I mean we have these bases all over the place; we have these, actually by past standards, pretty small wars, which consume an enormous amount of money. I mean, I argue that people generally and people like you and me, progressive-minded folks, say oh, my gosh; people tend to say, which always seems obvious, that we have these bloated defense budgets because we have all these foreign wars, these overseas engagements. We need to cut them out. Well we certainly do need to cut them out, but I think people get it the wrong way around. I'm arguing, in fact, it really is the case. We have these foreign wars because of the bloated defense budgets. They are there to justify the budget not the other way around. That's an important factor people don't understand.

Ralph Nader: That's right. In fact, there was a Secretary of State, Madeleine Albright, that once said, "We have all these weapons; what good are they if we don't use them?" Remember that one?

Andrew Cockburn: I certainly do. I know.

Ralph Nader: But here's something really fundamental, listeners, you know the old phrase "things got to get worse before they get better." Well actually, I've got all kinds of examples where the worse things get, the less they get better. Staggering increases in drug prices, for example, staggering increases in military equipment per plane or per toilet seat. Here's an example in Andrew's article. Three decades ago, some of you may remember there were press disclosures that the military was paying private corporations \$435 for a hammer and \$640 for an aircraft toilet seat. Now that really drew all kinds of public outrage and satire on the TV shows. And people at the Pentagon told me it was the most disturbing revelation in their lifetime--not the huge price overruns of major weapon systems--just the toilet and the aircraft toilet seat and the hammer. And then later in 2018, it was disclosed the Air Force is paying \$10,000 for a toilet seat cover alone. And it gets worse, the Air Force official explained that the price was required to save the manufacturer from "losing revenue and profit." That's quoted in Andrew Coburn's article. And there was almost no outrage. In other words, when things get so bad, it pummels the American people into cynicism leading to withdrawal. Now what is the way out of this, Andrew Coburn? Would you start with Congress military budget watchdog groups back home? Would you start with the Congress? Isn't that where it can be stopped because that's where the money is appropriated from?

Andrew Cockburn: Absolutely. You know Eisenhower, in his famous goodbye speech in 1960, when he talked about the military industrial complex, originally as he wrote the speech, he was going to say military-industrial **congressional** complex because that's what it is, and for whatever reason, he left out "congressional" when he actually delivered the speech. So really, we should start with the Congress. We should tell all these congressmen...there needs to be citizen outrage that we're pouring out all this money, as I argue in the piece, on \$10,000 toilet seat covers and you have to remember that the multibillion dollar weapon systems are really assemblages of equally overpriced small parts.

Ralph Nader: Tell us, by the way, what the F-22 fighter planes started out in terms of its cost per plane and what it ended up.

Andrew Cockburn: Well I think it started out as something like a mere \$89 billion, if memory serves me, and ended up over, 400 billion; actually, and I think I underestimated it. They always do this. It's called buying in. You're going to get this plane or this ship or whatever, for an absurdly cheap price--just a few million dollars and then end up the taxpayer, if they look closely, find out, as in this case, they paid 400 billion and up for this fighter plane, which actually was a good example. They were going to buy, I can't remember, 750 of them originally, and they ended up having to stop at 187 because the thing was just so expensive, they wouldn't have been able to pay the general's salaries-

Ralph Nader: Of course. This is what happens when this huge budget has no auditor. The Government Accounting Office [GAO] of Congress has been waiting. The Pentagon has been violating federal law since 1992 and not submitting a fully audited budget; then you get all kinds of massive waste. And sometimes I think, Andrew, that the military contractors are really laughing at the American people--basically saying, you can't do anything; we got Congress in our pocket. We show in every congressional district, almost there are jobs relating to the Trident submarine with subcontractors of the F-22. We've got that information conveyed to every [US] senator and

representative. You have to know what they actually called that \$450 claw hammer you can get in a hardware store for 10 bucks. You know what the contractor called that in the invoice?

Andrew Cockburn: No.

Ralph Nader: Here's what they called the claw hammer that you've got in your hardware box, folks--a "uni-directional impact generator".

Andrew Cockburn: Oh, my god!

Ralph Nader: In order to get 450 bucks from your pocket, taxpayers, they're laughing at you and Trump was laughing at you. And he wanted another and he got over \$80 billion, with a B, added to the Pentagon budget in his first year as a selected president that the generals didn't even ask for. They were stunned. And a majority of the members of the Congress voted for it including a heck of a lot of Democrats. So, it comes back to 535 men and women in Congress. You know how to control them back home, folks. You know how to demand that they come back to your town meetings where you have experts on the military budget, interrogate them, and demand to know why they are misusing your tax dollars, getting us into a whale of trouble overseas and draining the amount of money that you sent to Washington from rebuilding your communities with good paying jobs that can't be exported to China. To what extent, Andrew, is this virus you talk about, spiraling toward total disaster with more and more cost overruns to use the euphemism; more and more devouring our country's necessities with the military budget thus creating more and more boomerangs abroad that you and your late brother, Alexander Coburn, wrote about.

Andrew Cockburn: Well, that's right. As you mentioned earlier especially in the city--those people have been bludgeoned into accepting it. They don't complain as much as they used to. There isn't the outrage now that we used to have when occasional revelations of how big the rip off is, but it's worse in a lot of ways. Not only is it taking away more and more vital resources which are, as you said, really needed for schools, for health, for so many important things. But it's infecting, as I say in the article, other areas of the economy. And the great example is the Boeing Corporation, once a great corporation that produced great civilian airliners--very safe, economical, everyone around the world wanted to have them, and then they became, have become, more and more of a Defense company, so now it's run by people who've come out of the defense industry. Now the civilian planes are designed to look like military planes; they're vastly overpriced; they went over budget. They come on the market years late and it turns out they're badly designed. You know very well; I mean it's a very horrifying . . . I traced the disaster that we're hearing about with Boeing right now right back to their basically becoming a Defense company--a total Defense company.

Ralph Nader: I thought that comparison's very well taken. They're using the reckless lack of budgeting and engineering precision that has gotten them in trouble. We're talking of Boeing now with the Defense Department like on their fuel tanker, and with NASA [National Aeronautics and Space Administration] under spacecraft that has moved over into their civilian passengers like the deadly Boeing 737 Max and it's two crashes in Indonesia and Ethiopia. And the system is totally out of control. And the real question I think we have to ask ourselves, are enough people in every congressional district--let's start with a dozen. You know there are universities, colleges; there are experts everywhere who used to work in the military industry, used to work in the Pentagon--patriotic, former colonels, procurement specialists--they're everywhere. And enough of them can become watchdogs of the Pentagon at these military budget review town meetings, which you can

call. Who's going to be the first listener to organize the first one? Why don't you give us examples of a few of the members of Congress who are really actively challenging the military budget that you wrote about in your article in *Harper's Magazine*.

Andrew Cockburn: I talk about Ro Khanna, for example, from San Jose area in California. I mean, he's done a very good job of really mobilizing support in the Congress, in the House particularly, against this particularly egregious, genocidal war in Yemen that we're engaged in. Of course, I didn't mention or should've, but [Congresswoman] Barbara Lee, the great Barbara Lee from Berkeley, I mean she always consistently votes against the defense budget as the rest of them should, too, because it's outrageous. There are the House Progressive Caucus members slowly taking this up. I know they've got lots of other issues on their mind and so forth, but I wish they really would focus on this, because this is what's destroying every other possibility of spending money the right way--the demands of a defense budget. But the problem is, I mean this year, the Democrats are arguing about the budget they were going to put forward. The Progressives originally wanted to go for a cut in the defense budget and the so-called centrists. I'm afraid my editor stuck in the word centrist; I wanted to call them the corporate right wing of the Democratic Party, said no. They fought back and they managed to wipe out any notion of a cut. They are basically giving Trump what he wants.

Ralph Nader: Andrew, tell us about the original Pentagon whistleblowers which got quite a bit of publicity--Ernie Fitzgerald, the first one, and Chuck Spinney. These are military analysts. Nobody questioned their credentials. What did they tell us?

Andrew Cockburn: Well right, Ernie Fitzgerald, actually, he was a very great man. I mean, sadly, he passed away this year. He was the one originally fired on the direct orders of Richard Nixon for exposing the fact that a particular boondoggle with C-5 transport plane was, at that time, was a lot of money--2 billion dollars over budget, and for revealing the truth of what this was actually costing you and me, and every other taxpayer, he got fired. The president said fire that . . . well, I can't repeat on the air what Nixon actually said. And he sued and got his job back. And he was the one who revealed, the one who brought to our attention the original, the notorious toilet seat and the hammer because he early understood that the way to alert people, certainly at that time, to the enormity of what was going on, was to point out what we were paying for something everyone knew the price of; everyone knew that you shouldn't pay more than 10 bucks for a hammer or whatever, similarly small amount for a toilet seat. So, when they had it with paying \$600 and up, everyone, every citizen could understand what an outrage that was. And he needs to say that they have to understand that a \$100 million fighter plane is just a lot of toilet seats and hammers or the overpriced small parts flying in close formation. And that was Ernie. He was a brilliant guy and a wonderful patriot, a great American.

Ralph Nader: And Chuck Spinney?

Andrew Cockburn: Chuck, was a Pentagon analyst. And Chuck figured out--was the first person to really understand and explain in a very precise way that this whole business that the more we spent and the more technologically ambitious these weapons designs became--what I was saying earlier--meant we ended up with a smaller military force because he figured out by tracking all the numbers historically, that when they proposed to buy a thousand super-duper planes or whatever it might be, that we always ended up with far fewer that broke down all the time, that were too expensive to replace, so they got older and older and then broke down more often. This was very

awkward; he called it the "Defense Facts of Life." And he didn't get fired for that, but they just didn't give him anything to do, so he sat in the Pentagon for years and years writing actually brilliant critiques of what was going on--where our money was really going.

Ralph Nader: And he's still writing. Look him up on Google, Chuck Spinney, S-P-I-N-N-E-Y. I'm glad, by the way, Andrew, we're talking with Andrew Coburn, who wrote in the current issue of *Harper's* "The Military Industrial Virus: How bloated defense budgets gut our armed forces." I'm glad you retrieved General Douglas McArthur's very prescient quote in 1957 about the Pentagon and their corporate contractors always inflating threats. And here's what he said, "Always there has been some terrible evil at home or some monstrous foreign power that was going to gobble us up if we did not blindly rally behind it by furnishing the exorbitant sums demanded. Yet, in retrospect, these disasters never seemed to have happened, never seemed to have been quite real." So, let's start in the experiment, Andrew. We are heard widely in the Berkeley-San Francisco area that's still considered a hot bed of progressivism. So, I'm telling our listeners, if you want to start the first town meeting where you ask Barbara Lee, your Congresswoman, to come and answer questions about her position and the position of Democrats and Republicans, she knows so well in Congress after so many years, here's what we'll do. We'll send you a list of questions, if you would like, that she could take back to Congress and spread around to the Progressive Caucus, which she's a member of, and [to] Nancy Pelosi, who comes from San Francisco and rarely challenges the military budget--she's the Speaker. Would you be willing to provide some questions if we get a call from Berkeley and go to Nader.org or go to ratsreformcongress.org as to how to establish these demands for town meetings?

Andrew Cockburn: Absolutely, absolutely. I think it's a great idea. It's a great idea. It's really . .

Ralph Nader: Yeah, if we get one model underway, I think it'll get a lot of press, too, especially in the Bay Area and it could be replicated all over the country. So, okay, Berkeley activists, that's what you're noted for, **huh**--marches, petitions, mobilization, rallies; let's do one for the USA on a runaway military budget. I don't know if you're aware that retiring Admiral Hyman Rickover, 60 years in the U.S. Navy, often called the "Father of the Nuclear Navy," testified one last time before the Joint Economic Committee chaired by Senator Proxmire, who used to really go after the waste in the military budget and never got anything but support back in Wisconsin, by the way. It actually strengthened his political position where he almost never had a credible opponent. And what he disclosed--Rickover, was amazing--he said, "I wish I could sink them all." He said, "There's so much rapacity in the contracting business of Naval shipyards by these corporations, that we should have a shipyard owned by the U.S. Navy to provide a yardstick." Do you remember that testimony, Andrew?

Andrew Coburn: Yeah, he was great. Remember, he said another way he would reform the Pentagon was to get everyone in it--in the Pentagon, in the building--to go outside and form two circles, an inner circle and the outer circle. And he would then fire the outer circle.

Ralph Nader: He was full of those kinds of metaphors and he hated the greed of the shipbuilding industry in particular, and he wanted a competition from a U.S.-owned naval yard. The Congress didn't listen to him. By the way, if any of you want a copy of the paperback that printed the final testimony before the Joint Economic Committee of Admiral Hyman Rickover, just contact us and we'll send you a copy. It's a good piece of testimony to start summoning your members of Congress to town meetings on the military budget. I think you could also probably get Ben Cohen, who once

hired a bus and went all over the country to try to educate his fellow citizens about the bloated military budget--how it's connected with empire, and how it depletes budgets for community rebuilding of the infrastructure. I think he would come out to such a hearing as well and support you. So, we can send you copies of this reprint of Admiral Rickover's final testimony where he laid it all out. What else would you like to tell our listeners Andrew, about your research, not just in this article, but other writings that you've had on this subject, especially why your colleagues in the media don't seem to be writing that much about it anymore?

Andrew Cockburn: No. It's a sad decline. I mean, there used to be some really good reporters in the big papers and small papers who would cover defense, but along with the general decline of the media for all sorts of reasons. They always like to blame the internet; I blame this on the type of people who own the media these days just think they can cut quality and make money that way. But, yeah, there are still some good people. I mean, like just reading pieces from *The Virginian-Pilot*. The *Navy Times*, believe it or not, very good paper that's been really excellent in covering current disasters in the Navy.

Ralph Nader: What do you think of the Pentagon press corps--all those reporters that don't ask very tough questions?

Andrew Cockburn: I don't know what they do all day--copy their press releases or something. I mean, the theme I always like to get across to people, is how little the people--the generals, the leaders of the military establishment, actually care about fighting, about war; not that we want them to think about war, obviously we don't, but that's what they *pretend* to do. They say give us all this money and give us your young men and women because we need to be ready to fight; whatever then they do, goes other way. And one example I've written about on and off is this issue of something called "Close Air Support [COS], which means soldiers on the ground fighting need support from the air; America's always been sort of big on airpower. In these recent wars, they need aircraft who come and support troops actually fighting on the frontline. [Official US DoD definition of COS: "Air Action by fixed- and rotary-wing aircraft against hostile targets that are in close proximity to friendly forces and that require detailed integration of each air mission with the fire and movement of these forces"] Well, and we have a very good plane, so happens, to do that, called the A-10, which does it does and it does the job and the troops like it very much. So, the Air Force wants to abolish the A-10; they hate it. The Air Force doesn't like to be involved with the Army. They think they may be a part of the Army again if they spend too much time on this, and they just want to be able to buy at least big, huge, fancy, incredibly expensive multibillion dollar nuclear bombers. That's what they dream of, so they're quite prepared to let American troops on the ground get slaughtered because they don't have Close Air Support while they go off and trouser the money for buying nuclear bombers. It's an important fact. You don't have to be in favor of war or fighting or all that to understand, I mean, to appreciate and be outraged, I think about the fact that they don't care about the actual business they're being paid for.

Ralph Nader: To broaden this out, there are quite a few retired admirals and generals and high officials who really agree with you, who think there's too much waste, too much corruption, too much empire. Some of them formed this group called Center for Defense Information [CDI], which has been absorbed by POGO, which stands for the Project on Government Oversight. You can look it up, people, Project on Government Oversight, POGO. And they need to be supported and given a secretariat. And of course, as you know, Veterans for Peace is always on the Pentagon budget, waste and corruption, and advocating waging peace instead of constantly preparing and

waging wars all over the Third World. And their website is veteransforpeace.org. I belong to it; I believe in the organization. And they have chapters all over the country. You can check on their website where there's a chapter in your community, veteransforpeace.org. Before we leave, Steve, I'm sure you have more than one question or comment of Andrew Coburn who, in *Harper's Magazine*, wrote this extremely powerful article "The Military Industrial Virus".

Steve Skrovan: I actually do. I have two questions and the first one refers back to the article and the next one is a bit of a tangent. But, Ralph, you mentioned about Congress, all these defense contractors being distributed across all these congressional districts because the military is a job generator. And Mr. Coburn, you cite a study from the University of Massachusetts Amherst that challenges the idea that the military is such a great job generator. Could you elaborate on that?

Andrew Cockburn: Sure. I mean, as you say, this is always the excuse that we need to spend so much money on defense because it brings employment. Well actually, I won't deny that it brings some jobs, but that study you just mentioned revealed that it's actually a really bad way to generate jobs. For a billion dollars invested, this study showed you get roughly 11,000 jobs generated in Defense, whereas in education, for example, building schools and hiring teachers and all the rest, you get 27,000 jobs. I mean, they're far greater. And health is way up there; health is 17,000 jobs. So, it's a fake argument because, yes, it generates jobs, but very few. And by opting to spend the money on defense in the form of a usually useless weapons-production program as opposed to investing in our future, i.e., our children's education, you're actually making a bad job choice apart from anything else.

Ralph Nader: That's what can be pointed out at these town meetings back in your district when you summon your senators/representatives; look at that for a rebuttal, listeners. And your tangent question, Steve?

Steve Skrovan: My tangent question has to do with . . . since you have covered threat inflation, I wanted to talk about the most recent one and ask you what you know about what's going on with Iran and are we setting up for another Gulf of Tonkin situation?

Andrew Cockburn: Well, yes, oddly enough, I think, one line of defense against that is Trump himself who, I think through his addled brain, does kind of remember that he promised in his campaign to end these foreign wars, and he thinks might lose him a few votes if he stopped the really big one, which is what war would be. No, it's clear that there is no, I hate the term now, but it is "fake news" The notion, that there are signs of Iran getting ready to attack the U.S.; actually, I happen to know there is no hard intelligence on any Iranian plans to attack the U.S. or U.S. forces in the Middle East. Although someone did say if you're worried about threats of the possibility of attacks on our American troops in the Middle East, it's very easy to deal with that. You just bring them home, which I thought was an excellent suggestion. We don't need to be there in the first place. So really, maybe, I hope, it may not happen. I mean Trump's political instincts may prevent us having another Gulf of Tonkin. On the other hand, there are all these really, sort of, warped characters like Bolton around him.

Ralph Nader: I tell you, Andrew, Trump ought to fire Bolton because Bolton is maneuvering around Trump trying to get him in some sort of fight against Iran, which would be a metastasizing quagmire. And Trump has actually said, "John Bolton is trying to get me into a war, ha ha ha." Well, let me tell you, John Bolton is an infighter. He's a driven warmonger; he knows a lot more

about how to get the U.S. into war than Trump does. And the only thing Trump has left is to fire John Bolton.

Andrew Cockburn: Yeah, Let's all call the White House in urge that line of action.

Ralph Nader: Well, we've reached the end of our time, Andrew. Thank you very much for coming on and for being ready to supply a series of cogent questions to be asked of members of Congress at these town meetings back home. And let's hear from you, Berkeley. Thank you very much, Andrew Coburn.

Andrew Cockburn: Thank you, Ralph. Great to be with you.

Steve Skrovan: We've been speaking with Andrew Coburn. We will link to his work at ralphnaderradiohour.com. Now we are going to step away for exactly one minute to find out what's happening in the world of corporate crime with our *Corporate Crime Reporter*, Russell Mokhiber. And when we come back, we are going to talk about the state of cyber-security in the energy sector; how well is our energy grid protected. Don't go away.

Russell Mokhiber: From the National Press Building in Washington, D.C., this is your *Corporate Crime Reporter* "Morning Minute" for Wednesday, May 22, 2019. I'm Russell Mokhiber. Across the country, legions of home caregivers earn a pittance to tend to the elderly in residential houses refurbished as care facilities, that's according to an investigation from *Reveal* from The Center for Investigative Reporting. The profit margins can be huge and, for violators of labor laws, hinge on the widespread exploitation of thousands of caretakers, many of them poor immigrants, effectively earning \$2 to \$3.50 an hour to work around the clock. The federal hourly minimum wage is \$7.25. The Center for Investigative Reporting interviewed more than 80 workers, care-home operators, and government regulators and reviewed hundreds of wage theft cases handled by California and federal labor regulators. The investigation found rampant wage theft has pushed a vast majority of these caregivers into poverty. For the *Corporate Crime Reporter*, I'm Russell Mokhiber.

Steve Skrovan: Thank you, Russell. How well is our energy grid protected? Our next guest knows more about this than just about anyone in the country. Joel N. Gordes is a military combat veteran who flew over 130 combat missions over Vietnam, Laos, and Cambodia. He is formally the President of Environmental Energy Solutions and the Center for Energy Security Solutions--both energy consultancies involved in multi-disciplinary aspects of energy and environment especially as it relates to security. Welcome to the *Ralph Nader Radio Hour*, Joel Gordes.

Joel Gordes: Thank you very much, Steve, nice to be with both you and Ralph.

Ralph Nader: Thank you very much also, Joel. Listeners, we always talk about informed citizens persuading and educating their fellow citizens down at the village square level and Joel Gordes is a very good example of that. Recently, he made a presentation at the Winsted Community Bookstore on the question of cyber-security starting out saying it's a matter of when, not if, our networks get attacked through cyber warfare. And it so impressed the reporter that *The Lakeville Journal* put it on as a major story on page one, which is rather unique for a local newspaper. So, I want to ask you Joel, to describe our particular energy grid that you think and many others think can be a target of state action, like other countries around the world or wildcat action and with spectacularly disastrous results. Describe the grid system and how mutually interdependent it is; they give us electricity for keeping our whole society operating day after day.

Joel Gordes: Thank you for the very kind words in opening. And Ralph asked a very good question, is what's the nature of the threat and it's multi-faceted. And let me start though by answering his question about how is our grid set up right now. We call it a centralized grid. And this means that it has large units that are very distant from each other. This is something where you can interfere with at many points within the transmission, the distribution, and even in some cases, on the generation. And it's not easy for it to isolate into certain other areas although we are beginning to get better through certain technologies. It doesn't provide storage as a buffer, which a decentralized system would be doing. Again, it's these long links between the different generation units. A lot of this information was first pointed out by Amory and L. Hunter Lovins in their book *Brittle Power [Energy Strategy for National Security]* way back in 1982 and I pretty much stick by that formula that they gave. It also, by the way, doesn't have easy user controllability at the local level. The control comes from those distant places many miles away. All those add different elements of vulnerability to our grid.

Ralph Nader: All right. So that's the situation now and describe the electromagnetic type of attack. But before you do that, so people know what the present situation is, isn't it true that China and Russia and others are embedding in our system and we've got embedding in their system and that's the prime deterrent at least against those actors from attacking because they will get retaliated against with the viruses in their systems. But describe the electromagnetic first before you go into the mutual-assured destruction aspect.

Joel Gordes: Well, there's many different ways that the grid can be compromised. And when we talk electromagnetic, I think people are talking about electromagnetic pulse. There's been a great deal of discussion on that lately. The Electric Power Research Institute just came out with a paper pooh-pooing electromagnetic pulse, but then Dr. Peter Pry who headed up a commission on EMP as we call it, countered him. So right now, it's a he said/she said, even as far as the lethality, let's call it, of electromagnetic pulse. But there are other threats to the grid. Let me go through a few of them because EMP is just one. Of course we learned with the Arab oil embargoes a couple of decades ago about fuel supply interruptions, and that was a big one. There's also the thesis called security of the generation, transmission, and distribution of the grid itself and of the transmission and distribution lines as well as generation. Then we have formed dependency or disruption of globalized supply chains for certain components. Things like large scale step-up transformers, which are needed in a centralized system, sometimes are unavailable because most of them are no longer made in this country and they're very, very difficult to transport any significant distances. The other interesting thing is most of the lithium that we get for our lithium ion batteries, which we use for everything now including electric cars, are basically coming from South America, which has the vast majority of the lithium supplies at this point in time, so that's a weak point in the supply chain. Then we get to the cyber threats including a number of different forms of cyber threats--everything from embedded codes in foreign-sourced components that we get to worms and viruses, and we even put electromagnetic pulse into this category as a cyber threat. Then you can get a blended combination of all those threats. Somebody might do a physical attack and at the same time then do a cyberattack, so that's another one. Finally, one that's sort of new, and not in the lexicon as much, is adding complexity to an already what we call tightly coupled complex system. And that just means there's more stuff out there. And the more stuff you have, it's the more stuff that can go wrong. So those are your main threats to the electric grid right now.

Ralph Nader: Well, in 2015, Ted Koppel wrote a modest bestseller called *Lights Out*, which focused on impending catastrophe from a cyberattack and we had him on this program. And he was saying the Obama Administration doesn't seem to get the urgency and, of course, the Trump Administration doesn't either. It's like nobody wants to talk about it because it's too horrific. It will just shut down your air conditioning, shut down your electric light systems in your home. It will totally immobilize and paralyze and lead into catastrophic traffic congestions--mass transit systems right out of science fiction. And so, as a society, like most societies, we don't like to talk about these horrific scenarios. Let's say our listeners absorbing what you're saying, Joel Gordes, say, well so how come it hasn't happened? It could come from so many different sources, so many places in the world; it doesn't have to come from guns or bombs--why hasn't it happened?

Joel Gordes: Well, we have had the incident in Ukraine where the one plant was taken down and that was sort of a warning shot across the bow. And I would say that there have probably been a number of close calls on it. Who knows, some of this information may not leak out into the world. Now, that means there have been other types of cyberattacks, which have actually taken down part of, not the electric grid itself, as opposed to the actual net itself. And that was, there was a major cyberattack against DynCorporation, which operates part of the internet and it froze traffic for some very major companies on their cyber needs. So, it's a matter of that's a way in and it's something we have to be aware of. But you're right, it's something that we have not seen; it's something that's maybe a bit on the horizon because you're not going to find a lot of amateurs with the capability to be able to do this, so it's not like certain other cyberattacks. But believe me, the grid is, to coin a phrase, "unsafe at any speed."

Ralph Nader: Well, Joe Gordes, you talk about what we can do to mitigate such an attack and I want you to talk about that. But before we do, what about all these smart homes, smart meters, smart gadgets that almost all people have in this country; you're saying that that is part of the problem and that you don't have any of these smart gadgets, although the electric companies are forcing households to replace their older meters with smart meters. Tell us about the vulnerability that we all have when we have these smart gadgets in our hands or in our homes.

Joel Gordes: Well you see, this is exactly what's happening. And right now we're probably bordering on a trillion smart types of devices one way or the other. And what happens is these smart types of devices are the things that can be commandeered and then focused against something like an electric grid in order to bring it down. So that's exactly right that we need to start saying, "Hey, let's start getting smart grids up to standards because a lot of devices that you and I buy can be commandeered to be used against us in this respect." And a lot of them do not even have a place to put in a code that allows only you to be able to control.

Ralph Nader: And you were very specific in your presentation. You said Amazon recently admitted that employees listen to customer voice recordings from Echo and other smart speakers. And in recent years there have been major security breaches reported by Facebook, Google, MyHeritage, Dow Jones, Twitter, Marriott, Lockheed Martin, the Pentagon and others. So, we're talking about a preview of what could happen on a national scale here right from these consumer gadgets. How have you avoided the pressure from the electric companies to put a smart meter in your home?

Joel Gordes: Well the only problem I have is that I have a small photovoltaic system producing energy for me cleanly to combat climate change and that would be a semi-smart meter. But the

type of inverter that I have as part of the system is pretty good and secure as far as I know. So, it's a matter of making sure that the devices that you have, number one, have the capability to be secure, and number two, that you would have done everything you could to keep them secure. So those are the important things that need to take place. But with the proliferation of everything--every refrigerator going out, every television going out with smart capability--nobody's paying attention to this and all of them can be commandeered.

Ralph Nader: Yeah, you said smartphones, thermostats, security cameras, DVR players, monitors and other high-tech appliances now commonplace in tens of millions of homes. And so, we got a personal stake here. It's not as if we're waiting for some national decision maker; we're all part of this vulnerable situation. So let's say you're in charge of policy here, Joel Gordes, how would you mitigate this?

Joel Gordes: Well, I don't think there's any way, now that the genie is out of the box, to do a complete mitigation particularly on what's already out there in the field. If I were in Congress or even in a state legislature however, I would find some way to put certain requirements onto what happens when a company sells a product, which is capable of being commandeered. And if it is, then basically something has to be done about not allowing them to either put it in place or to recall it and have some work done to make sure that it has the right codes put in place.

Ralph Nader: Your safeguard is, you called redundancy and diversity--building microgrids, blocks of microgrids. What do you mean by that?

Joel Gordes: Well that's a great introduction to the other thing of what we need to do better and that is doing microgrids as hopefully a panacea to the problem. Now a microgrid is not the same as a smart grid. A smart grid has made extensive use of smart technology and so they're often confused. A microgrid has certain characteristics that I sort of went into in a way before, showing that it is separated from the main grid. It has its own fuel supply, has its own physical security, is less dependent on those supply chains, external supply chains. And in general, it allows you to cut off from the main grid, but it can reconnect to it for a transfer of power. Now that might happen through smart technology, but you can at least measure it and it may not take place on its own if you so designed it to not do so.

Ralph Nader: Joel, you say you get the energy for these microgrids from solar, wind capacity and fuel cells, which are sort of independent generating capabilities.

Joel Gordes: Yes. These are what we call distributive resources and those are renewable distributive resources. Now at this point in history, we still will need some fossil-fuel driven types of generation, let's say within a microgrid, because we may not have total availability to sunlight or other renewable sources all the time, so there will be a certain interface. And remember, you're going to have things like police stations and hospitals as part of a microgrid. In fact, they are great starting points because they are high-value types of facilities that we must keep running a 100% of the time.

Ralph Nader: Before we ask Steve for a question or commentary, where do people get more practical information on this subject? Then they can connect with other people to get something changed here and more protective.

Joel Gordes: Well that's a good question, too. There's a number of books and I mean, as weird as it sounds, one of the books that I still point to as the best is anything by Amory Lovins . . . Amory and Hunter Lovins and such. And the book I mentioned before, *Brittle Power* [*Energy Strategy for National Security*], is probably the oldest, and still in my mind, one of the best authorities of what a microgrid might look like. Other than that, we have a whole bunch of other people--Joel Makower of Green Tech [www.GreenBiz.com] does a great deal of work on this, too. And I will say by coincidence, Joel Makower and Amory Lovins and myself were together on 9/11, physically together on that date when they took down the Twin Towers. And I was standing next to Amory and we're watching the television, watching one of the towers fall and I didn't ask him anything, but I said I wonder what's running through his mind. But it is something that has impacted us because it's that type of a disaster that makes you really start thinking about these things.

Ralph Nader: And Joel, is there citizen groups cropping up here in this area?

Joel Gordes: Nobody is actually doing much. The environmental groups are interested in the environment. And one of the things that does bother me a great deal--and I am and have been an environmentalist for decades, and I have the record to prove it--is the environmentalists don't look at the security aspects. For instance, let's say we go to the all-electric in certain ways as they want us to, but then certain things become unavailable doing it before time. It's a matter of timing. What comes first, the electric car or the microgrid? If you get everybody into electric cars but then you do not have an electric system that can actually service them on a day in, day out basis, because it's vulnerable, is that where we really want to go? Health safety and security must be considered.

Ralph Nader: Steve?

Steve Skrovan: Yeah, Joel, do you personally feel optimistic about our ability and our will to solve this problem or mitigate it?

Joel Gordes: Well, I have my dark days, no pun intended, in thinking about it, because the repercussions on life, liberty, and such, are in the balance to be honest with you. And I don't mean to be overly scary about it and run and cry wolf, but even our State of Connecticut's chief security risk officer, a guy named Arthur House, is very concerned about it. He's become more concerned over the last year and a half/two years when I follow his writings and he's a longtime friend of mine. And he's talking about the malware and the Russians planting the malware within our electric system. Now five years ago, Art House was a lot more conservative in his thoughts about that and never would have said that, but he is doing it now. And when Art starts doing it, I get even more frightened about what could happen.

Ralph Nader: Well as you said in the Winsted Community Bookstore presentation, maybe it will take some sort of cyberattack on a national security level, rather than just people warning about it, for the public to focus on it. Certainly, there's quite a bit we can do locally as well as nationally. But as usual, it usually takes some sort of major tragedy to wake people up and get them to pressure the decisionmakers to face up to it. Anyway, we're unfortunately out of time. We've been talking with Joel Gordes on cybersecurity. And I hope there are a lot more people like you around the country, because you reach regular citizens. And as we know, that's where the changes have to start with. Thank you, Joel.

Joel Gordes: Thank you, Ralph and Steve, for the opportunity to get the word out on this. I do appreciate it very much.

Steve Skrovan: We have been speaking with Joel N. Gordes. We will link to his work at ralphnaderradiohour.com. I want to thank our guests again, Andrew Coburn and Joel N. Gordes. For those of you listening on the radio, that's our show. For you podcast listeners, stay tuned for some bonus material we call the *Wrap Up*. A transcript of this show will appear on the *Ralph Nader Radio Hour* website soon after the episode is posted. For Ralph's weekly column, it's free, go to Nader.org. For more from Russell Mokhiber, go to corporatecrimereporter.com. And Ralph has got two new books out, the fable, *How the Rats Re-Formed the Congress*. To acquire a copy of that, go to ratsreformedcongress.org, and *To the Ramparts: How Bush and Obama Paved the Way for the Trump Presidency, and Why It Isn't Too Late to Reverse Course*. We will link to that also at ralphnaderradiohour.com. The producers of the *Ralph Nader Radio Hour* are Jimmy Lee Wirt and Matthew Marran. Our executive producer is Alan Minsky. Our theme music "Stand up, Rise Up" was written and performed by Kemp Harris. Our proofreader is Elisabeth Solomon. So, join us next week on the *Ralph Nader Radio Hour* when we welcome back health care expert, Dr. John Geyman who will talk to us about his new book entitled *Struggling and Dying Under Trumpcare [How We Can Fix This Fiasco]*. Talk to you then, Ralph.

Ralph Nader: Thank you very much, Steve and Jimmy. And let's hear from Berkeley for the first citizen summons for a town meeting with your own representatives from the Congress on the military budget craziness and what to do about it.