Robin Just: Welcome to this podcast from the Environmental and Energy Law Program. Today, Ari Peskoe is speaking with Phil Sharp to mark the 40th anniversary of the Public Utility Regulatory Policies Act or PURPA. They discuss the law's legacy and what it suggests about climate change legislation. We hope you enjoy the podcast.

Ari Peskoe: This is Ari Peskoe, director of the Electricity Law Initiative, and I am so pleased to be joined today by Phil Sharp, who was a member of the House of Representatives from 1975 to 1995, representing the people of East Central Indiana. He continued to be a thought leader after leaving Congress, particularly on energy and environmental issues. He headed Harvard Kennedy School's Institute of Politics, and the environmental economics' think tank, Resources for the Future. Phil, thank you so much for being here today.

Phil Sharp: Happy to be with you Ari.

Ari: So last week was the 40th anniversary of the National Energy Act, which includes PURPA. And I want to talk about that, but before we get there, the other big event last week was the midterm election. The Democrats gained about three dozen seats in the House, and that's their biggest midterm gain since 1974, which was your first election. And I'm curious if you could tell us, obviously there was a lot happening in the national scene at the time, but what role did energy policy play in your first election, and at the national scene at the time?

Phil: Well, first of all, I don't think it played a direct role, that is, in that we were all debating it, but it was something that was of great concern to people and the rising price of energy, and particularly oil, it was, but there was a broader inflation issue. So I don't want to diminish that. It's just in question of how much actual debate about policy there was probably differed around the country. But it was part of the economic and security concern of the time.

Ari: Of course, the big issue then was the resignation of Richard Nixon. I imagine that was a dominant issue of the campaign, which had happened just a few months earlier.

Phil: That's right. And in that way it's very similar today. The big issue was Donald Trump. And in some of the Senate races, they probably were victorious because
of that, but they clearly lost the House, I think, not just because of that, but that was certainly a factor in the election.

Ari: So I want to fast forward a little bit to the next Congress, 1977, President Carter is inaugurated, you win reelection. And just two weeks into his term, he gives a televised speech, wearing a sweater, sitting in front of a fireplace, and he starts off talking about energy issues and he says, "We must face the fact that our energy shortage is permanent, but if we all cooperate and make modest sacrifices, if we learn to live, thriftily, remember the importance of helping our neighbors, we can find ways to adjust." I was wondering, what was your reaction to that message that we all... Americans need to sacrifice on energy issues. And what was the reaction in Congress to that sort of message?

Phil: Well, I think when you use the word sacrifice, probably people didn't jump on board for that, but I think there was a lot of agreement, one, that it was a national priority, and it had been beginning with Richard Nixon, who called for Project Independence after the era of embargo. The Arab Oil Embargo, as it was called at that time in 1973, had really come as a very shock to the American foreign policy establishment, and added to a concern about turmoil in the Middle East, at a time of course, that we still were in the cold war and still competing with the Soviet union.

Phil: So Carter was capturing an issue that he said had not been adequately addressed. But it was something that throughout the 70s, and even into the 80s, was an overarching issue in our country. In fact, one of the important points, I think, that makes it relevant today, is that it was an effort during that era, and certainly Carter's NEA or National Energy Act proposals, were an effort to really, not just alter the energy markets in the country, but really to transform it. And the transformation, one of the major challenges was, it was cheaper for us to keep buying more foreign oil, than it was to produce. We could produce more in the country, but it was at an increasingly costly to do off shore, in Alaska, and in all kinds of ways that you were going to try to get oil out of the shale rock in the Colorados.

Phil: So trying to transform the system and trying to overcome an advantage that the foreign oil had, it's very similar to today on climate, where we're trying to really transform the energy system. And then in this case, to try to overcome the cheapness that has prevailed for those greenhouse gas emissions that come from coal, oil, and even from natural gas. And so that was the broader context that I think.

Phil: There's one other contextual thing before we go to what the Carter program was recommending, and that was, you have to remember that in the early 70s, we were into an inflationary period. Inflation was somewhere around 5%, it bounced
back and forth. And the Nixon administration with the Democratic Congress having given them authority, imposed economy-wide wage and price controls, probably a very unwise policy, but it was adopted. And that meant that oil prices domestically in the United States, gasoline, the fuel oil that was critical in New England, were actually price controlled. And that meant you had to allocate scarce resources. This was, probably again, another major mistake in policy, but that prevailed, and it led to a massive political argument for the next decade, over whether we should have price controls on the oil system.

Phil: And if we look a little more broadly, starting in 70s, on what's happening across the way in energy markets in general is, first of all, as I've already said, the oil prices were rising because of internal costs, but also because the international price had gone up with the oil embargo, among other things. And there began to be the argument of, which Carter was in the sense, making, of peak oil. That is that we are running out of the resource, certainly as an American resource. We don't know when exactly, but we know it's becoming scarcer and scarcer. The natural phenomenon of oil in the ground that we can reach, is coming to an end at some point here. And so we had rising imports of foreign oil.

Phil: The other was on natural gas. Natural gas, it was a similar kind of proposition where we've had since 1954 with the Supreme Court decision. We'd had control of wellhead price of natural gas, that is where you're pumping it out of the ground, and a price control very low on that, and for anything that went into the interstate market. And here again, the assumption was we are running out of this resource.

Ari: And I want to get to the point that you made just earlier about, really what was happening here, what Carter intended, was a real energy transformation. And you compared that to our challenges today, and really both are longterm propositions. The idea that we're going to be able to conserve enough, as Carter had hoped, that we could really make an impact, and at the same time unlock new supply. How does Congress approach that sort of longterm issue? And really, when I think of Congress, I think of trying to get short term political wins, but here you are facing a generational problem.

Phil: Well, that's right. And the argument was, and it was widely agreed on, that one, we're running out of oil. Two, the price of oil will continue to rise. In fact, the speculation was, it would be at $100 dollars by, I think, 1980 or 1985, something like that, and none of this panned out. But that drove people to agree to all kinds of interventions in the economy. But you're not wrong about, the political challenge was that there were people had different ideas but they were willing to support, and different goals.
Phil: So the national security goal of cutting foreign oil was important, and it was also argued that that would be better for our economy. But the fact was that consumer interests were very concerned about the rising price of gas and oil, so they strongly supported keeping the price controls on, which by the way, were frustrating our ability to both conserve and to produce more. And also you had major equity issues, fairness issues, coming into play, where it was saying, "Wait a minute, don't hurt gasoline consumers. They have almost no choices. They have to drive, they have to have this." By the way, that's another of those kind of excessive myths, that they're incapable of making any changes. And you also had a major regional argument going on about what's fair for producing parts of the country, Texas, Louisiana, Oklahoma, versus what's fair in industrial parts like Indiana, Ohio and in the Northeast.

Phil: And by the way, it was so intense that there were bumper stickers in Texas, in which they were so angry with the federal approach to trying to limit prices on oil and gas and therefore around production in their view, was that they had bumper stickers that simply said, "Let the bastards freeze in the dark."

Ari: Well, that's not a great policy option. But so, we've talked about the... Obviously the issue in the oil market seemed to be the dominant issue at the time, but there were problems in the electric sector too. And, so oil at the time was a major fuel source, particularly in the Northeast, so that led to higher prices. But what were some of the issues that Congress saw in the electric utility space?

Phil: Well, also the oil was already... You have to remember there were several policy developments under Nixon and Ford with the Democratic Congress working with them, that had already begun to move the oil out of the generation market. So it was never a high percentage, but it was relevant. But there were other issues that came, and one was the rising cost of electricity.

Phil: Basically, electricity from a consumer's point of view, had either been flat or declining over a number of years. And suddenly we were in a new world where they had built all these... a number of nuclear power plants, all of whom were, most of whom were in trouble in terms of, they were only running, maybe 60% of the time, instead of as they are today, 90% of the time. So they were very costly. The additions of new power plants, coal, or nuclear, were actually beginning to mean you had to raise prices to add electricity. In other words, you were losing out these economies of scale that had been so much a part of the economics of electricity in the country, because, and the expectation was, that we would still have demand growth of around 7% a year, which now, we're almost flat, kind of thing.

Phil: So there was going to be need to add electricity, it was going to be expensive. And that was politically very sensitive in many states where the utilities were
going into the utility commissions and asking for a raise. So that's partly why electricity, not just to reduce the oil, but why electricity got onto the agenda in a big way.

Ari: So I understand, of course, when electricity prices go up, it becomes a political issue, but electricity rates had historically, and continue to be really a local issue, a state issue. I’m wondering what did compel Congress to get involved in utility rate making? Because that was one of the big aspects of PURPA was kind of requesting that states consider all sorts of new rate making techniques. It was a big move for Congress to get involved in this space.

Phil: No, that's right. And, and it was primarily and from the national consumer groups and labor and others who felt that the utilities had the political power, they had a political grip on utility commissions, whether that's true or not, it was certainly a wide scale belief, that the monopolists had political power, and therefore you couldn't count on the state commissions to actually keep them disciplined, which was in theory, one of the things that these state utility commissions were supposed to do. So this led to a drive for federal intervention. And as you noted, part one of PURPA is all about rate reform.

Phil: Now, the interesting thing is, the House following on what was proposed by the President of the United States, Carter, they actually required changes in the rate system. Because basically what you had in place in most states, probably everywhere, was what were called promotional rates, designed to push more electricity into the marketplace. And those were... One of them was a declining blocks, where the more you bought, the cheaper it was for you. And that, of course, was relevant to industry, big time, kind of thing. So not just the groups I mentioned, but the environmentalists also were concerned about this push for just more and more, and the consequences for the environment as well as for the cost of energy to everybody, kind of thing.

Phil: But what happened is, the Senate would not go along with overturning state power and state regulation, and they opted for what finally became in the law, which was, we simply required the state commissions to have public hearings on these various rate reform issues with the hope that that would cause internal forces in the state to actually say, "Whoa, that's a good idea. Let's do it."

Ari: Yeah. And I think that actually became legally, a very significant move. The language in PURPA ended up being "consider", that state public utility commissions had to consider, but they were not required to adopt these rate making paradigms that Congress had requested they investigate. And ultimately this was brought before the Supreme Court, it was FERC V Mississippi or Mississippi V FERC, I can't recall. And, the court held up PURPA on the grounds
that it wasn't actually commandeering state regulators to really do anything other than just consider. So that ended up being a legally, a significant move.

Ari: I was interested though, in the point that you made about, Title I, really being about sort of a political economy issue, really, because the thought was that the utilities were too dominant at the state level. But I wonder, were they also a political force at the time in Congress as well?

Phil: Oh my goodness, yes. They had major lobbying efforts, and they stepped them up when they began to find that the federal government was getting into issues that they previously had not had to deal with at the federal level. So you had considerable efforts by the utilities to counter this.

Phil: And by the way, just to make another point that you were talking about, you were talking about the legal question about federal intervention in the state commissions, and that's a very important question... But this conflict between federal and state regulation has been an intense one throughout and still is today, as to what is the legitimate authority of the states. And maybe it's not even a legal question, always. It's a question of politically, are we willing to try to have more of a national market as opposed to these individual and regional markets. And it's prominent today in the discussions about how to have competitive markets.

Ari: And so, the other important aspect of PURPA, the one that really lives on today, is Title II of PURPA. And that's another aspect of the law that I imagine the utilities were against, and it required the utilities to purchase energy from co-generators and from certain renewable energy facilities. So here really, Congress for the first time, was telling utilities they had to buy energy from specific generation sources. What was the thinking behind that in Congress? What was the motivation for that move?

Phil: Well, I think again, now the motivation came from various people pushing that. When you say motivation of Congress, obviously, it’s never a singular motivation. But it was the notion of, again, the market power of the utility was preventing us from having additional resources, and especially clean resources, in the country. So this was an effort to, frankly, break into the monopoly of power of that.

Phil: And of course it was done with small renewal... The qualifying facilities that could get this benefit out of the law, were obviously twofold. One was these small renewables, like windmills and maybe solar, though there wasn’t a lot of that at the time, didn’t come to be a lot, but the other was, co-generation, which was again, going back to Carter's speech was, there's a more efficient way we might do this. Co-generation means, you're obviously... When you produce
electricity, most of it's being done by the production of heat first, and a lot of that heat is wasted.

Phil: And so the issue was, can we make use of the heat and can we generate electricity at the same time? That's a smarter economic thing to do. What this meant was, that actually factories, which were having to produce heat, suddenly could produce electricity because the utility would have to buy it. And this, most utilities were not open to this idea that they would have to buy it. They tended to use as one of their arguments, that, of course they had a high priority on being reliable, meaning that nothing can interfere as much as possible, except mother nature, with you and me receiving our electricity. And this argument became that, "Well, if we don't control the grid, the electric wires and the generation and whatnot, you can't maintain a reliable system." Engineers will tell you that I used to have the utility executives say, "Well, let me bring the engineers in to tell you." In fact, many of the executives at the time had actually been former engineers. So they had this deep belief that I think was real, but also it was a political justification.

Phil: I did have one utility some years later, one utility CEO, Erle Nye from Texas, who actually made the joke, it wasn't a total joke, that he said, "The trouble is reliability is the last refuge of scoundrels." That everything could be justified on reliability.

Phil: But so you had that issue of how to control it, kind of thing. And what developed out of that, and you may know better than I do, is there was a lot more co-generation that came on, and it became a major source of new electric power in the country because of these provisions from PURPA. But there's a critical issue maybe you want to go to, which is called avoided cost.

Ari: Well, yeah, that's the thing. So, Congress broke the monopoly, but it really left it up to the states to do the critical calculation of how much are these co-generators going to get paid. And really, that rate is what's going to drive deployments. So Congress really did leave it up to the states. And then you had a really wide disparities in how this policy was adopted, with some states like California and New York, offering very generous rates, and therefore seeing wide deployment of these qualifying facilities, particularly co-generators. But in a lot of states, the utilities worked hard to make sure that the calculation was very low, and we didn't really see a lot of development in many parts of the country.

Phil: Well, that's right. In my own state, I don't think there was any development because the state never adopted a high cost avoided costs. I don't remember whether it was California or New York, but one of them said the cost of any new increment of power would be the same as building a nuclear power plant, which
is rather expensive. And so, many qualifying facilities could compete with that price, and the utility had to buy at that price.

Ari: And so, the complaints from the utilities have been there since, essentially since well before the law was enacted. And then once it was enacted, they have continued to complain about this requirement that they have to purchase energy. When you look at, sort of, the motivations you were talking about, of breaking the monopoly, what do you think the lessons have been from this policy?

Phil: I personally, of course, I voted for that policy. And then I later, in 1992, was a strong supporter of trying to bring some more competition into the wholesale market. And I believe it was very important, awkward, and not always perfect, but it was very important to change our point of view and our practices with respect to the so called natural monopoly of the utility system as it had existed. And to discover that, wait a minute, there's lots more things we can do. We can get other power sources into the system and still run a reliable organization.

Phil: So there were lots of learnings that came out of it. One, which I've just alluded to, was learning how to manage the grid, the wire systems, without having full control over all of the generating resources and learning how to integrate these resources.

Phil: Now, this still goes on as an argument as to, well, we now know we can have at least 10% wind and we can do it very easily as wind's intermittent. It's a problem in managing the grid, but we can manage it. And the utilities... Depends on which utility you're talking to, argue, "Well, 10% the limit." And then it's 15%. And then it's 20%. We keep learning we can do more because of technological and managerial innovation. We can integrate more diverse resources. And that was one of the important things to begin. And it's been a constant learning thing.

Phil: The other was experimentation with price. So, as a determined avoided price, different techniques began to be developed, including, "Well, let's just offer... tell the world that anybody who can come in and match this price, why, they'll get the business." And that was the introduction of some competitive efforts to add generation costs, especially, I think it started more in new England.

Phil: And then it also created new political stakeholders. Obviously the new entrants came into this industry, especially big electric users. They began to advocate for change too. They were never very pleased with the monopoly system to begin with. It was counter to their whole business ethic. And so they became big enforcers for more competitive markets on the assumption that would bring prices down.
Ari: And it took about 15 to 20 years before today's competitive electric generation markets really started to take shape, but I think they do go back to this Title II, which really, as you said, broke that monopoly power. So it seems like, from that perspective, I think Title II was a real success in bringing us today's competitive markets.

Phil: Sure. As a matter of fact, you're just seeing these as developmental things. You know what I mean? When you single out a policy and you say, "Oh, that doesn't make any sense rationally." It's awfully easy to disparage any specific policy at the time.

Phil: I'll just give you another example of that. Something we learned from the 70s and 80s. During the 1970s, we began investing, the federal government did, massive amounts of money in research and development for alternative sources of energy and efficiency, and even in production of oil and whatnot. And in the 1986, when the world oil price dropped significantly, and many of these things were pulled back, many of the technologies didn't seem to be going anywhere. And so critics would say, "Well, see what a wasteful Congress? What a wasteful government was." Even though this was supported on the research side, almost universally.

Phil: And then guess what happens? In 2004 when the oil prices are starting to rise dramatically, the gas prices had arisen in 2000. Suddenly the marketplace is sucking in all of these failed investments by the federal government and by the private sector, of new technologies, new processes. And indeed, part of that is the fracking that was so popular and so important today in natural gas. In other words, things don't always pay off at the time, but they seem to have a developmental effect. That's not to justify every foolish thing that Congress or anybody else does, but it's to say, you've got to take a little longer view about the value of some of these things in our very complex economy.

Ari: And I think with that sort of longterm view in mind, I want to turn to where Congress might go next. You know, perhaps in a couple of years, we might have two houses of Congress that might be interested in climate legislation. You back in the National Energy Act days, were on the select committee in the House, to develop these policies. You later went on to chair the Energy and Power Subcommittee of the House Energy and Commerce Committee, when Congress passed the Clean Air Act Amendments of 1990 and the Energy Policy Act of 1992. So these are some of the, sort of biggest energy policy initiatives in Congress over the past 50 years. So, when you look forward to what climate legislation might look like, what might you tell a member of Congress who doesn't have the sort of experience you have working on these big energy policy issues?
Phil: Well, that's a good question and I probably need to give more thought to it. But one thing that I would quickly say is, it's hard to expect, and I would say this to an outsider too, that in our governing system, in which we disperse political power, states, federal among the courts, among the Congress, among the president, we're going to disperse power. It's not very easy to adopt coherent, comprehensive, massive policies, long term, that fit in our governing system, which is huge.

Phil: And so, one wants to go at this with a little more modesty, even though I think this issue is a compelling issue of our time, and our biggest failure is not to keep at trying to deal with global warming, kind of thing. But I think there are number of ways.

Phil: First of all, even this next Congress, the past Congress, the Congress we're in right now, to the surprise of many, has managed to keep up some of the research and development and technology that is critical, that the Trump administration, at first, wanted to just totally eliminate, and on the bipartisan basis, it was kept going. So there's a major R and D component you want to keep at now, and we can do it in this next Congress, because I think we've got to help develop further options for decision makers in the future.

Phil: But the other is, there are a whole host of other policies done at the state and even at the federal level, that I think are useful, but they aren't in the form necessary. Now one component, I think is a necessary, but not a sufficient policy, is of course a carbon tax. And the reason for that is because our economy is so diverse and depends so heavily on... We depend on private investment, meaning somebody is buying something or somebody's willing to invest to make money out of it, that you put a price on it and that will definitely help move the needle on this.

Phil: Now I do not say this is the be all and end all. We missed a golden opportunity with tax reform to have politically done it. Nobody expected this administration to do it. But the positive thing about that is, what happens on most of these energy, environmental, and all other major legislation is, there are trade offs made. It's never everybody, "Oh, we all agree, so by God, let's just go and do this." No, I agree with this, you agree with that, and we make a deal. We bargain to put it together.

Phil: So you could on the tax thing, say, "Sure, you don't like to raise the price of electricity, but guess what? You can give people back a tax benefit." Less social security taxes or previously you would have given a corporate reduction. The point being there are trade offs that can be made. Those can still be made at some point in the future. Nobody expects it immediately, but we're going to keep at this in multiple ways, kind of thing.
Phil: And the big thing to remember too is, one thing that is different from the 1970s significantly is, we are more part of the global market system. And of course, this issue is compelling on a global scale. We have to have other countries doing things. But interestingly enough, one of the reasons that we have more advanced cheap solar in the United States is because Germany and China both pushed hard and aggressively on solar investments. And that cut the cost. Now, we also lost some competitive production here in this country on that, but the point being, a lot of innovation products and other things that are going to increasingly come from other parts of the world. And going back to the solar example, it means that the taxpayer in the United States did not have to provide as big incentives as they would have to achieve what's been achieved in the last five to 10 years, kind of thing.

Phil: So I guess what I’m saying is, we’re going to come at this in multiple ways, and it's hard to get a comprehensive policy. But the one other thing that I think is important for people in academia and everywhere to realize is, it is simply beyond the human capacity in my view, for us to say, "Oh, we know what is needed in 50 years, and we'll just plan backwards and we’ll do it all. And we'll adopt it now. And we can argue about this and finally come to an agreement." First of all, I don't think it's politically possible, but I don't think it's intellectually possible either. There are so many changes in the future.

Phil: Now let me be clear, thinking it through and trying to keep thinking it through is very important, but acting as if you could adopt a 50 year strategy now, just misunderstands the constant changes. If we went back to the 70s, and I won't go over it now, but there were half a dozen ways in which we were wrong about what was going to happen, on technology, on price, even on politics. And so you need to come back as... The National Academy of Science has a huge report focused on what's called adaptive management. And it's just the notion, we're going to have to correct the process along the way as we learn, as we judge whether or not we're making progress.

Phil: And so, by the way, that is more politically appealing to lots of people who also doubt this longterm. But we have a number of advocates that say, "Well, if we just do X, that'll get us there." And I'm more for create as many options as you can. Go ahead, I'm sorry.

Ari: Yeah, it sounds like what we need is compromise and flexibility, and I hope we can have a Congress that can provide those two things.

Ari: You know, we started this conversation talking about the election. So I want to quickly go back to that. And I just have to mention, I apologize for bringing this up, that you won about a dozen elections to the House, and you are the only person to have defeated Mike Pence in election. You did it twice, in 1988 and
1990. Now we have his brother, Greg Pence, was just elected to the House last week. Do you want to make an announcement here today that you will run in 2020 against Greg Pence? Could we make some news here today?

Phil: Absolutely not. I think they'll put on my tombstone that I beat Mike. But he was just starting out and I was a well established political figure. It was a Republican oriented district, I was a Democrat. And by the way, I did run a dozen times. I only had 10 terms, but I lost the first two general elections.

Ari: Oh, I wasn't going to mention that, that's okay.

Phil: It takes me a while to get things right.

Ari: Well, Phil Sharp, thank you so much for joining us today.

Phil: You bet.

Jesse: Yeah. I'd love to come back in the future. Thanks.

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