

Center for Strategic and International Studies

## Online Event

# “Just Transitions to a Global Clean Energy Future”

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FEATURING:

**Jennifer Granholm,**

*U.S. Secretary of Energy*

**Dharmendra Pradhan,**

*Indian Minister for Petroleum & Natural Gas and Steel*

**Kadri Simson,**

*European Commissioner for Energy*

**Seamus O'Regan,**

*Canadian Minister of Natural Resources*

**Liz Shuler,**

*Secretary-Treasurer, AFL-CIO*

**Wanjira Mathai,**

*Vice President and Regional Director for Africa, World Resources Institute*

CSIS EXPERTS:

**John J. Hamre,**

*President and CEO, and Langone Chair in American Leadership,  
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John Hamre: Good morning, everyone. My name is John Hamre. I welcome you to this. This is a very exciting program we'll have today. And so grateful to have such senior and distinguished participants in this call. Secretary Granholm, thank you for joining us. We're so grateful to have you.

CSIS started this project about two years ago we called Just Transitions to a Global Clean Energy Future. You know, this revolution that's underway, some communities and some people's jobs are going to be vulnerable going forward. And we owe them an opportunity to make a transition so that they have just as bright and brilliant a future as we will. That's the purpose of our conversation today.

We have such short time. I'm going to turn now to Nikos. Nikos, would you – would you please get us started? But thanks to all of our remarkable speakers.

Nikos Tsafos: Well, thank you very much, Dr. Hamre, for that introduction. As Dr. Hamre said, the concept of a just transition is something that we at CSIS have been at for a while now. We had a project launched by my colleague and predecessor Sarah Ladislaw with the Climate Investment Funds. One of the things that I've learned in this conversation is it's a topic that means different things to different people. When you have a conversation where I grew up, in Greece, it's a little bit different than the conversation you may have in Washington, or Alaska, or South Africa, or India.

But it's a conversation with a common denominator, and that's the search for fairness amidst change, and also the sense that we want change to be for the better and to be fair. And so I think that is what makes it quite universal no matter where you are, quite human. So I'm very excited that we're able to assemble this incredible panel of people from all over the world to talk about this.

We are joined by the Secretary from the Department of Energy Jennifer Granholm – thank you so much for joining us, Secretary; Minister Seamus O'Regan, minister of natural resources of Canada; Commissioner Kadri Simson from the European Commission; Minister Dharmendra Pradhan, minister of oil and natural gas and minister of steel from the government of India; Secretary-Treasurer Liz Shuler from the AFL-CIO; and Ms. Wanjira Mathai from the World Resources Institute, where she's a vice president and a regional director for Africa.

Secretary Granholm, let me begin with you. We are having this event in part because the president has called the leaders of the world to a climate summit. So we have seen the president of this administration make energy and climate a top priority. You, yourself, have talked about the opportunity in the clean energy transition for jobs, for investment, for addressing past

injustices, for capturing and creating new markets. Tell us, what are the administration's priorities in this space and its plans to create a just transition?

Jennifer  
Granholm:

Thanks, Nikos. And thanks to these incredible fellow panelists. It's great to be with all of you who, like me, understand that these workers who've been essential to our respective nations' economic growth still have so much to offer during the clean energy transition. So to answer your question, this administration's approach can be summed up by President Biden's three favorite words, which is we're going to "build back better." And that means doing everything that we possibly can do to make sure that this transition creates new jobs and clean-energy solutions and economic opportunities for every community so they can lead the world. Those communities can help lead as the global economy rapidly moves to decarbonize.

And that especially includes the coal and the fossil-energy communities that have literally helped to build America and many of our countries over the last century. I was listening, and to paraphrase Senator Joe Manchin yesterday, who represents mine workers in coal country, he said, if given the chance, these workers could build the best damn wind turbine you'd ever see.

And so in his first week in office, President Biden signed an executive order which tasked my department, the Department of Energy, to staff a whole-of-government process to figure out how to do right by these communities.

And I certainly know from my time – I was the governor of the state of Michigan before being energy secretary, and I know that the most transformative solutions are the ones that are grounded in community. And our approach here is similarly inclusive. We're giving these communities a seat at the table. And we're not only asking for their input but for their help to create the solutions that are going to work best for them.

And you can see that in President Biden's American Jobs Plan, which is an amazing commitment, the biggest commitment in us, in our country, since World War II. And it proposes billions of dollars for place-based strategies, to scale up industries of the future that fossil workers can get jobs in.

For example, the American Jobs Plan would launch 15 decarbonized hydrogen demonstrations. Those are big demonstrations with lots of jobs specifically targeted in distressed communities. It would also launch 10 pioneer carbon-capture retrofits in steel and cement and chemical plants, as well as power plants, leading the way for industrial facilities to operate with lower- or no-carbon emissions.

We want to be able to have miners mine for geothermal. We want to be able to give people a chance to see their future in this clean-energy economy. So we're just getting started. I'm very excited to collaborate with my fellow panelists and nations around the world as we navigate this transition together and learn from each other. We have so many different fora, forums, to work through.

But in particular, I just have to say I'm happy today to announce that the U.S. is going to be joining the Empowering People Initiative, which will be launched at the 12th Clean Energy Ministerial in June. So I'd like to thank my colleagues from Canada and the EU for initiating that important effort. I cannot wait to get to work alongside them.

Nikos Tsafos: Thank you, Secretary Granholm, for your comments and for your leadership on this issue.

I wanted to turn to you, Minister O'Regan. Canada has made a commitment to phase out coal from power generation by 2030. You've got a process for a just transition for coal workers and communities. Can you talk to us about where you are in that process and also where are your priorities going forward?

Seamus O'Regan: There we are. How are you? Hello to all of you.

Nikos Tsafos: Good. We can hear you now. Thank you.

Seamus O'Regan: Yes. And I find that very important, kind of crucial to getting your message across – unmuting.

I am in the island of Newfoundland, which is one of Canada's three oil-producing provinces. And our just transition, as Secretary Granholm said – we echo her – it's all about workers. Our entire climate plan is about lowering emissions, driving economic growth, and supporting workers in this transition.

We – here in this province, my province, we rely on oil revenues more than any other Canadian province. So, you know, these are my friends and neighbors. So I have to get this right, you know. These workers are the people I live with.

And we won't be able to transition to a low-carbon economy without putting them first, because who do we think is going to drive down these emissions and build up renewables? It's oil and gas workers. As, you know, Bill Gates said just a few weeks ago, it's oil and gas workers who understand the complex engineering involved.

And the transition that we have talked about now for many years is happening, and the markets are moving. This is real. And workers know this. You know, as one of them told me, Seamus, you know, we're used to retooling; we just want to know what we're retooling to. Another union leader, head of the crane operators' union, said to me, you know, whether – a job is a job. Whether we're lifting an oil pipeline or a wind turbine, we just want good work.

We know where the puck is going. That's our saying here in Canada. I know the secretary says it as well. It's from Walter Gretzky, the father of one of our great ice hockey players here in Canada. And he always says: Skate to where the puck is going. We know where the puck is going.

So we made the decision to phase out coal and workers were our focus. Our taskforce underscored the importance of connecting directly with and investing in affected workers and their communities.

And look, the situation's unique in each region of our country. We're a big country. There are a lot of regions. Four out of 10 provinces were affected by this phaseout. So we created policies and programs that were flexible enough to address the unique circumstances right down to the community level.

We've been working with communities in each of the four provinces affected by this phaseout to address their specific needs. We already had federal organizations called regional development agencies in place. And those agencies were locally based, locally staffed, so we worked through them and they have been critical to the success of our measures.

And each of the communities that we've worked with on this plan has been clear. Diversification is the key to sustainable economic growth. They are happy to retool. They just need to know what they're retooling to and they need support to do it.

So we responded with two programs to phase out coal-fired electricity by 2030 and we're actually ahead of schedule. The first was the Canada Coal Transition Initiative, which is currently supporting 44 economic diversification projects across our provinces of Saskatchewan and Alberta in the east – or, west, I'm sorry – and New Brunswick and Nova Scotia in the east. And the second was the Infrastructure Fund, which supports infrastructure projects in impacted communities. And those projects are getting underway now.

And we're still doing more. We're working with the Atlantic provinces out here on transmission interties that will connect regions with surplus non-emitting power to regions that are moving away from coal. We call it the

Atlantic Loop. And my home province here of Newfoundland and Labrador could be a big supplier of that non-emitting power. This will reduce GHGs, improve the resiliency of the grid, provide non-emitting affordable power, and create jobs.

It's these kind of investments that I think are going to put us past our Paris 2030 targets and to net zero by 2050. So thank you.

Nikos Tsafos: Thank you. Thank you, Minister.

Let me turn to you, Commissioner Simson. From the beginning, the European Green Deal has been – has put just transition as one of its core elements. We have seen a number of initiatives. We have seen support and emphasis on the coal regions of the European Union. Can you tell us a little bit about where we are in this process, what we have learned from these past few years, this engagement with governments, with local communities, with other stakeholders, NGOs? Can you give us a sense of where we are and what we have learned from that process?

Kadri Simson: Good afternoon from sunny Brussels. And indeed, our Green Deal puts our people in the center of our policies. And even in the situation where we – well, we are committed to become the first climate-neutral continent by 2050. And as you know net zero is our response to the global climate emergency, but it is also our growth strategy.

So, for us, the Green Deal economy means that we will build more of – (inaudible) – clean industries, more sustainable business models, and new job opportunities. So we estimate that Green Deal can generate up to 1.2 million new jobs all over the – Europe within the next decade alone, and up to 2.1 million jobs by 2050. And in comparison, right now in Europe there are currently approximately 200,000 jobs in our coal sector.

So, that said, of course we have to admit that every modernization process comes with disruption and dislocation, and previous experience suggests that without targeted action the phaseout of coal will bring long-term unemployment and decades of depopulation in coal regions. So we know that naturally investments will flow to richer and better-equipped areas, so we have to do something.

With the Green Deal, we committed to a different future for those regions. So true climate leadership means that the transition has to be fair and just, and we need to design policies that address the consequences of the transition and help those that do live in most vulnerable regions.

So you asked about the progress we have made so far and the lessons we have learned. So, indeed, first, to ensure that no one is left behind, we must

involve vulnerable communities in the planning and implementation of the transition. And when we launched the EU Initiative for Coal Regions in Transition in already 2017, we brought all stakeholders – so national governments, businesses, labor unions, and NGOs – together to start a transparent, open discussion on the transition. And we also established a necessary local governance mechanism. So we will do all those necessary actions together.

For example, we set up a governance structure to coordinate efforts of different municipalities in Tuval (ph) in Romania. We helped Slovenia to launch its own government commission based on the German model to adopt a phaseout date for coal, because the end date is important. And, for example, we also supported Asturias in Spain and the Midlands in Ireland in conducting wide-reaching local consultations for the regional transition strategies.

So, secondly, we must provide public support to clean energy and just transition projects. The commission – the European Commission, they did a Just Transition Mechanism aimed to mobilize up to 100 billion euros by 2030 to support clean energy and just transition projects in coal and carbon-intensive regions. This targeted instrument will also complement Europe's cleanest budget in history. So this budget, coupled with the recovery fund to deal with the effect of the COVID-19 pandemic, is worth 1.8 trillion euros for the coming seven years. And at least 30 percent of it will go to green transition, and will be complemented by structural reforms to prepare our economies and our workforce for the future. And beyond these public funds, we are bringing technical support to the regions.

And thirdly, of course, it must create the necessary conditions and supportive environment to make no emissions possible. And this means training workers, also repurposing land, and diversifying the local economy with – basically, with the sectors of the future in mind. And jobs that we know are bound to be lost in carbon-intensive energy and industry, these used to be well-paid, and they came with benefits in the past, and they also came with a sense of job security and career prospects. And now people that will lose these jobs need to be convinced of the benefits of the transition. And seeing new, well-paid, interesting employment opportunities is a key aspect of that. And that we tried to organize and secure in those – in those most vulnerable regions across Europe.

Thank you.

Nikos Tsafos:

Thank you, Commissioner. As someone who grew up in Greece I've seen just how the conversation around just transition has really shaped how the country talks about the coal phase out and the opportunities created by energy transition. So I wanted to thank you – thank you for that.

I wanted to turn to you, Mr. Pradhan. Obviously, India is in a different position. It's a developing economy with growing energy needs. I wanted to ask you, what does the clean energy future look like, from your perspective? And what are the opportunities and priorities of the government of India in this regard?

(Pause.)

Dharmendra  
Pradhan:

Sorry. Thank you, CSIS, for organizing this wonderful interaction of these distinguished panelists on the sideline of the Global Leaders Summit to be held tomorrow.

You have rightly mentioned India's case. In the introduction, you also mentioned we are an emerging economy. Our priority, our strategy is something different from the other part of the global developed economy group.

With that also, we are totally committed to what we have placed in front of the global citizens have been – since 2015, to decarbonize our economy. As a responsible global citizen, as a country, we are committed to that commitment.

Today, our energy appetite is increasing. Today, we are one of the – one among the – the number-three energy country, one of the global standards. Our energy – per capita energy consumption is one-third of the global average. That means in future our energy demand will increase. All the experts of the globe are predicting on one – are unanimous on one thing: The future of the growth of energy demand will come from India. Here lies our answer.

Now we are planning the incremental requirement of our energy will come from the renewable energy. Recently, Prime Minister Modi will categorically announce our next – 2030 in our energy basket, 40 percent will come from the renewable sector. A lot of emphasis we are giving on the solar energy, wind energy, biofuels, biogases.

And recently, not only the renewable energy basket; we're also looking towards future energy, new technology with energy. Hydrogen is a priority area for us. In the recent budget in February, prime minister gave an emphasis to create a hydrogen mission to more R&D, more business plan, more pilot projects. In that way, we'll advance the new energy technology, new energy vertical also.

In that way, we are committed on certain things. Gradually, we'll phase out our existing energy – (inaudible). We'll transit work to our significantly

greener and cleaner part. But looking into our affordability challenges, looking into our price sensitivity in our domestic economy, we are using gas as a bridge fuel, though gas is part of fossil fuel family. But gas is a cleaner energy than oil and coal. Oil and coal will continue to be in our energy basket for a period where gradually we are making the more cleaner. We put gas as a transition fuel, as a bridge fuel, and gradually we are moving towards more cleaner renewable energy and it will go up to hydrogen energy. This is our roadmap.

Nikos Tsafos: Thank you so much, Minister, for these comments, and really appreciate the commitment of the government of India to changing the energy basket while, of course, recognizing the different starting point of India. I think that's a very important thing for us to always remember.

Let me turn to you, Secretary-Treasurer Shuler, and really appreciate having you on this panel to bring the perspective of labor and workers. I wanted to ask you, what does the just transition mean for you? And maybe as you answer that, you know, we have a lot of clean-energy jobs in the United States. You know, what are we doing right? What are the successes that we've seen so far, either in terms of regions or trades? And what are the challenges that you see that we have to do a little bit better?

Liz Shuler: Sure. Well, thank you. Good morning. Good afternoon. Good evening. (Laughs.) Since this is global. Thanks for the question. Thanks for including us, Nikos. And thank you to CSIS for bringing us all together.

I will say it's an honor to be here with this distinguished panel, especially our secretary, Secretary Granholm, and the other ministers. I love what I'm hearing this morning so far. I've been nodding my head the whole time.

Just for context, the AFL-CIO is an umbrella organization of 56 unions, 12 ½ million working people. We're diverse. We're inclusive. We're across all sectors of the economy and very much in the energy industry. So I applaud you for this conversation on just transition.

And for workers, you know, that can mean many things. And it could mean supports for workers in industries that are declining and, you know, thinking about things like wage replacement for those who are displaced and, you know, a bridge to pension and job-training programs. But I'd like to highlight two other things I think we should be thinking about for an equitable clean-energy future.

And the first is to make sure that no community is left behind and what we like to talk about, place-based strategies. And that means creating the jobs and the opportunities within communities that are impacted by the clean-energy transition and within communities that have been, you know,

impacted by environmental degradation. And so that means identifying local job-creating investments before existing jobs are lost.

And, you know, earlier this week one of our affiliated unions, the Mine Workers union, made that point. And they released a transition plan from their perspective. And one of their members said – and he’s a midcareer miner in West Virginia – and he said, yeah, I get it. No one wants to see the planet get ruined. And if I have to pivot into a new industry, then I will. But it can’t just all be on me. And he would move into a clean-energy job right now if it kept him home and he had the support to get there.

And to do that in coal and other fossil-fuel communities, the Biden administration’s American Jobs Plan really shows us the way. It includes targeted investments to create good jobs in new industries. It also has an immediate upfront investment that will put a quarter of a million people to work in union jobs, many of those in rural America, cleaning up existing oil and gas wells and abandoned mines.

And Secretary Granholm and the Department of Energy, I think she mentioned, is leading President Biden’s Interagency Working Group on Coal Communities. What an important signal that sends, right, because it is absolutely critical for working families to know that doing the right thing to fight climate change doesn’t come at the cost of their jobs and their quality of life. That’s what we’re up against.

And quickly, my second point, job quality. The transition should not mean a transition from existing high-quality energy jobs to low-paying jobs, right. And as you said, there are thousands and thousands of jobs in clean energy – hundreds of thousands, right – but those jobs aren’t necessarily good jobs with family-supporting wages and benefits and retirement security as it stands today, because right now renewable-energy jobs pay a fraction of what existing energy jobs pay.

And we need to grow this industry with a high-road, high-wage strategy. And we need to remove the barriers to workers organizing in unions and restore bargaining rights, because that’s how we actually raise the standards and make sure that clean-energy jobs are good jobs. And we can get there.

And Nikos, you asked about what’s working. We are looking at offshore wind right now as a model because workers in the building-trades unions, they built the first successful offshore wind farm in the United States. And we did that with a top-down partnership with the developers. And we decided together that we were going to work collaboratively to create that high-road strategy. So that’s something that I think is a success we can point to. And Secretary Granholm talks about this all the time, that good

union jobs are going to be critical for reaching the administration's bold new goal of powering millions of American homes with offshore wind energy by 2030.

So we see untapped potential in the massive investments in clean energy, in research and development, you know, whether it be carbon capture, electric vehicles, semiconductors, large batteries. But the key is that we turn the publicly funded research and all these investments into the jobs that are going to benefit workers throughout the supply chain also so that manufacturing can actually grow again as we innovate. And we have to include a worker voice in the process all along the way.

Thank you.

Nikos Tsafos: Thank so much for these comments, and also for mentioning offshore wind. We put out a commentary a couple of weeks ago here at CSIS talking about that – obviously, the administration's bold plans, but also a lot of what's happening at the state level and the emphasis on sort of ensuring that value-chain and forward-infrastructure investments and worker retraining. There's enormous opportunity, not just for the energy that comes out of the offshore-wind industry, but also of the associated value chains and good quality jobs that come with it. So thank you for mentioning that.

I wanted to turn to our final panelist, Ms. Mathai. One of the things that you've talked a lot about is the role of women and the youth and local communities in driving the energy transition in Africa. And so I wanted to ask you to speak a little bit about that. You know, how can the international community support these efforts? But also what can we learn from them? Because they're really driving an energy transition in Africa that looks quite exciting.

Wanjira Mathai: Thanks, Nikos. And it's delightful to join all of you.

Just to start by saying so often, when we talk about an energy transition or energy in Africa, a lot of people are still reducing this to a light bulb in a house. And that's nice, but that's not what will power Africa. And so the energy-transition discussion on the African continent is about the industrialization of Africa and pulling her out of poverty. And in many ways we're talking about building forward better, because we don't have a back to build on, but we're building forward. And that is the wonderful news about this, because the transition for us is really about taking the best of what has been doing and just doing it right up front.

And Africa is a fascinating place on so many levels. One, the average age – it's a very young continent, 19 years old. I don't know how many people know that. It's a very young continent. And so African youth are definitely

going to be driving the agenda and the ambition of the energy transition, if not directly, certainly by proxy. And over 10 million jobless youth will pour into the job market every year. And so you can imagine the sheer scale of youth demand for jobs.

And a lot of what's going on does depend on energy on the continent. Forty percent of ICT is energy on the continent, 25 percent of agriculture. And I want to spend a little time on agriculture, because agriculture itself is extremely gendered on the continent. Eighty percent of the food that's consumed in all non-industrialized countries is produced by small-scale farmers. And consider the fact that 70 percent of small-scale farmers are women. This is a huge sector with respect to energy demand, and certainly with the gendered role.

And then, of course, agriculture, with the new trade regimes coming into place, the Continental Free Trade Agreement now opening opportunities for real activating agricultural value chains in a way that could really power jobs and livelihood improvement. So the opportunities here for energy to power the continent, really exciting. And then, of course, 30 percent of education is energy. So you can just imagine all of that.

But women as well as youth are transforming Africa's energy sector, and their roles are, of course, within the entrepreneurship, innovators, their policy and advocacy spaces. And there are several initiatives. Even just to mention a few, Women in African Power – you know that one, of course. It's supported by Power Africa. And it's supporting the participation and advancement of women in Africa's energy sector. Also have ENERGIA, a wonderful initiative that, together with its partners, is empowering women entrepreneurs in the delivery of energy services, reaching millions of consumers in very hard-to-reach areas. And then, of course, Women in Renewable Energy Association, Women in Energy Kenya. There are several of these.

But we know that integrating women and youth at all levels is important. There's really some key things that we would need. I'll just mention three of those.

We have to address education gaps. STEM education, like in many places of the world, serves as the driving force behind human capital development. And in the energy sector, this is definitely no different. We have the almost similar startling exclusion of women in STEM. And we're seeing that, yes, grow, but the gender gap still remains – 30 percent of male students graduating from STEM and only 16 percent women are graduating from STEM. So we need to increase women in this sector.

Of course, invest in women and youth energy entrepreneurs. There's several – it's a very encouraging space, this one, several accelerators coming up that are creating opportunities for women and youth to hone their skills, to become better at pitching, to become better at running businesses so that they can run solar and other renewable businesses. Because the off-grid solutions for energy will remain a major part, as renewable energy is the majority of – many African countries still rely largely on renewables, but a lot of those will be off-grid and that will require a lot of these microentrepreneurs.

And then, of course, the policy environment has to be present. And it's just wonderful to hear Secretary Granholm talk about what's going on now and how that is powering jobs. National governments have to incentivize renewables for there to be the sort of demand that's required.

So I'll stop there, Nikos.

Nikos Tsafos: Well, thank you so much for these comments, and particularly for bringing the world's industrialization and agriculture into the conversation as well. I think as we go to parts outside the sort of traditional OECD world, and remembering the key need for energy to really power economic growth and improvement in living conditions.

I'm going to turn back to Secretary Granholm. Let's do another round of questions. Secretary Granholm, I wanted to ask about one particular aspect of President Biden's agenda and focus, which is environmental justice, and really the search to try to not just have a transition all over the place but really have a transition that is focused to try to address and redress historical inequities. Can you tell us a little bit about that part of the agenda and what the administration is doing?

Jennifer Granholm: Yeah. I'm happy to. Some of you who have been following this know that President Biden is committed to something called EJ40, which means that 40 percent of the investments in environmental – in our environmental efforts, in our climate change efforts – 40 percent must be directed to the communities that have been hit hardest. And that means communities of color, indigenous communities. We want to make sure that those who are on the front lines of experiencing the worst of what industrialization brings – whether their children can't breathe because of asthma or neighborhoods that have been bisected by three ways, the health pollution associated. We want to make sure that they get the benefits of these investments as well.

And, you know, like all of you, I'm super impatient. And I want to get to the end right away. But we also know that the way we approach these investments have to determine who reaps their rewards. So, you know, the 40 percent has got to be done in a way that is consultative. If these

communities are getting hurt – hit first and worst by climate change, we need to bring them to the table.

I used to have – when I was governor, I had a body guy, somebody who went with me on all of my events. And he made sure that my scheduler put into the schedule an extra 10 minutes whenever we went to an event where I was giving a speech so that I could see the people who were often unseen – like the waiters and waitresses, or the security guards. And he made sure that I – that he added that because he used to say to me: Governor, you cannot lead them if you do not see them.

That seeing people is so critical. I believe there's an expression in South Africa that is a greeting that says "sawubona." And the response is "sikhona." Sawubona, "I see you." And the response, "I am here." So even though many of us are impatient, the process of how we get to the end means that we have to respect the dignity of these communities that have been hit hard, because the place-based solutions that we're talking about have to be crafted in partnership with people who have been impacted.

It is an unmissable opportunity right now to get the ball rolling in this administration. As I was saying to John Hamre earlier, we have 942 days left that we are guaranteed. Our hair is on fire and we've got to do this in partnership with those who have been most affected in a negative way, to make sure they reap the benefits of the structural issues that have plagued them and America for hundreds of years. Let's do this.

Nikos Tsafos: Thank you. Thank you, Secretary Granholm for these comments.

Minister – or, again, let me turn to you. Talk a little bit about the international dimensions of Canada's actions. You're a co-founder of the Powering Past Coal Alliance. Tell us a little about the international priorities of the government of Canada in advancing the cause of a just transition.

Seamus O'Regan: First of all, Nikos, I should mention after your comments about off-shore wind, I'm – this is – Newfoundland is perhaps the windiest island in the world. So that is definitely something we'll be looking at. And Ms. Mathai, I just wanted to support your comments. If we don't work hard around diversity on racialized communities, on indigenous communities, we will not get the most talented people that we need to do this. I hear your point loud and clear. Ms. Shuler, in the interest of transparency, by the way, I'm going to be stealing your arguments. (Laughs.) Those were excellent points. And I'm sure you know Hassan Yussuff of the Canadian Labor Congress. I have him on speed dial. Because I have found through all of this that the most creative solutions have always come from unions.

And let me also take a minute to say that we are very much looking forward to our American partners joining Canada and the EU at CEM. We know that we are going to be able to do great things together. And we need international solidarity here. So this is a good thing. And it's in that spirit that Canada and the U.K. created the Powering Past Coal Alliance in 2017, for a simple reason, because coal-fired power has been the single largest contributor to climate change to date. And action was and is needed on a global scale. So we wanted to speed up the growth. You know, we're impatient, as Secretary Granholm said.

We wanted to speed up the growth of cleaner energy sources. And the best way to do that was to phase out coal-fired electricity as quickly as possible. It has become the world's leading coal phase-out initiative. More than 120 governments and businesses and organizations have joined us. We want a broad buy-in, because in order for it to work everyone needs to be on board, right? Governments, utilities, investors, labor groups, civil society. Just last month Canada hosted the alliance's first-ever global summit. Eighty speakers from more than 15 countries. And at that summit the U.N. Secretary-General called for a global effort to organize a just transition, to make prosperous clean-energy communities from historically or currently coal communities.

And the alliance is responding to this call. And our members are leading engagements in some key transition countries in Central and Eastern Europe. We're sharing solutions and outcomes that we've had success with – like financial mechanisms – to accelerate coal plant retirements or case studies showing the economic and social benefits of phasing out coal emissions. But no government can do it alone. We know that. So we're working with a lot of thought leaders and practitioners – such as Bloomberg Philanthropies, Carbon Tracker, The Rocky Mountain Institute, as well as leading financial organizations such as Ceres, the International Investors Group on Climate Change, the U.N. Principals for Responsible Investment.

And we're working with other countries and international institutions. We've committed \$275 million to the World Bank to assist a number of developing countries, particularly in Southeast Asia, with deploying renewable and energy efficient alternatives to coal. We are leveraging existing international efforts, like C3E, that initiative, and Equal by 30, to ensure that the transition is inclusive everywhere. You know, I know, and we all know that a global just transition away from coal will not be easy. But look, working together we have found, through the Powering Past Coal Alliance, we can do this. We can do this. And I welcome everybody here to join us.

Nikos Tsafos:

Thank you. Thank you, Minister, for these comments.

Commissioner Simson let me turn back to you with a similar question. We've talked in the first round of questioning about the just transition in the context of the EU. But you're also trying to engage the neighborhood beyond the jurisdictional borders of the EU – whether that's the western Balkans or Ukraine, but also more recently reaching out to Africa in partnership with the International Energy Agency. Can you talk to us a little bit about those international dimensions of the just transition agenda for the European Commission?

Kadri Simson: Yes indeed. Well, because Europe is responsible for only 9 percent of global emissions; that's why encouraging and supporting the transition in our neighborhood and worldwide is an important priority for European Union. And what we hope is that, you know, for an inspiring model that combines ambitious climate goals with economic growth, and also social fairness. And of course, we can share our concrete experience from tools such as Coal Regions in Transition and Just Transition Mechanism. And we can show that economic and energy diversification is possible, and it can create better jobs.

So we will work with all our partner countries as equal partners. And I'm pleased to see the growing interest in a just energy transition globally. For example, cities on both sides of the Atlantic already cooperate very successfully via the Global Covenant of Mayors for Climate and Energy, and there is a lot we can learn from each other. And you would be surprised to see how much a coal town in West Virginia and in western Macedonia in Greece have in common. So the EU is ready to share our experience and, indeed, we are doing it already. So coming closer to our neighborhood with several international partners.

We have launched an initiative to help coal regions in the Western Balkans and also in Ukraine so that they can design a transition towards a carbon-neutral economy, and already 70 regions do benefit from our actions. Of course, here energy efficiency and renewables and regional market integration are firmly on the agenda. And this is complemented by financial support.

Well, we want to reduce the risk of investments in Western Balkans, for example. We expect some 20 billion euros of additional investments into the region as a result.

And then Ukraine, this country is a member of energy community. This is a cooperation framework to support the energy sector reform and foster market integration. And also, Ukraine benefits from financial support and is participating already in our Coal Regions in Transition Initiative. So they are cooperating with experts from our member states to learn from our lessons.

And if we look at our partners in Africa, we are engaged there in the context of the Sustainable Development Goal of universal access to energy and climate change mitigation. And we are building an energy partnership with Africa. This is a key strategic dimension of our external relations.

So we have, again, several initiatives. Together with International Energy Agency, for example, we launched an affordable and sustainable energy system for sub-Saharan Africa program to support, for example, in particular, improvements to the energy data management and long-term energy planning.

So there are lots of other initiatives that help us to promote our climate agenda. And I think that this is only a must that we cooperate with our closest neighbors a lot. Thank you.

Nikos Tsafos: Thank you. Thank you, Commissioner.

Mr. Pradhan, let me ask you a similar question on the international dimensions, and talk to us a little bit about how international investors, international community. How can they support and how do you see them supporting India's energy transition?

Dharmendra Pradhan: Thank you, Nikos, for a(n) unscheduled part two. Let me put another fact of India, that rightly Secretary Granholm raised her concern. And this is really a global concern regarding this global warming and climate change, and the responsibilities are going to grow.

Let me put one example how in India Prime Minister Modi envisioned climate concern its own way. When Prime Minister Modi took charge in 2014, around 300 million households are there in India. Out of the 300 million households, around 140 million households are linked with clean cooking fuel. The rest of the population were using conventional cooking fuels – cow dung, oil, coal, and other pollutant fuels.

WHO has a report: 1.5 million women are dying worldwide every year due to domestic pollution. In India. 0.5 million women were dying due to domestic pollution. Through budgetary support, through a great policy reform, Prime Minister Modi given clean cooking fuel to almost all 300 million households in India today in the span of six years. In the span of six years. It's a great initiative.

In that way, who are the beneficiaries? The beneficiaries are the women. The beneficiaries are the children. There are a lot of new job(s) created through this distribution mechanism, through this additional hundred million free LPG connection we have given from the budgetary support. So

all this welfare scheme also are on the path of climate change and to achieve the Sustainable Development Goal.

The part two of your question is – (inaudible) – right, where I discuss with Secretary Granholm and later on with Excellency Kerry, the special advisor for American president who came to our country, how can we collaborate? I just said Prime Minister Modi has a vision to fulfill our 40 percent requirement in our energy basket from clean energy, from green energy, and hydroelectricity is a priority area. Compressed biogas is a priority area. Solar is a priority area.

In this area, I'll just say for the next few decades, India is a growth sector of energy market. Western world, developed economy has a lot of technology, a lot of resource. We have market. If we can synergize in both the way – in R&D area, in the new technology, in the digitalization – you'll get market for your technology and financial investment will be safer in a policy-driven market in India.

I can cite one example. When we took charge in 2014, we are giving – I am in charge of transport sector in India, energy sector within India. We are giving billions of dollar(s) of subsidy in the transporters and fuel. But due to clear-cut policy of Prime Minister Modi, today zero subsidy allocation is there for transporters and fuel. That means we have a market-driven transport system.

So who will come to invest in India where the clarity will be there, where the decision will be there, government cooperation will be there? All these aspects are there in India. We have a market, you have technology, and there is finance. We can work together in this area. We have discussed in last few days with my counterparts at USA and Excellency Kerry.

Nikos Tsafos:

Thank you, Minister. And thank you also for talking about clean cooking fuels. You know, we have made tremendous progress as a world – and led by India, of course, in electrification – but sometimes clean cooking fuels lag behind. And as you talked about, the immense health benefits that come from clean cooking fuels is one of the many reasons why we can't – we can't lose focus on trying to advance that agenda. So really appreciate you bringing that to the conversation.

Ms. Shuler, I wanted to turn to you. You talked in your first question-and-answer round about sort of good-quality jobs. I wanted to ask you about the levers that we can pull to get those jobs. And you talked a little bit about the Biden administration, but maybe tell us a little bit of what's happening at the federal level and how much of that is a state issue or a sectoral-specific issue. Tell us a little bit about what the – what are the

levers that we need to pull to get the good-quality jobs that you described in your – in your first answer.

Liz Shuler:

Yeah. We are absolutely laser-focused on making sure this transition and these investments have standards attached so that the talk about creating good jobs, right, is real. And there are so many levers that we can pull. I'll just throw a couple of examples out there.

You know, the first example is the lever of federal and state spending and procurement dollars to drive demand and opportunities in the places where people are hurting the most. So, for example, we are looking in the U.S., of course, to converting the entire federal fleet to electric vehicles. So imagine if our government committed to procuring only clean energy and vehicles that are made by companies who meet high labor standards, right, and that the components in those vehicles – the batteries, you know, are made with those good jobs requirements. Seems obvious, right.

The second example is tax breaks. You know, tax breaks for renewables should be contingent on high labor standards. And, in fact, my home state – Oregon is my home state. My home-state U.S. senator, Ron Wyden, is announcing today legislation that will require labor standards for any clean-energy project that uses tax credits provided by the federal government. So, you know, Senator Wyden worked with us. He was a great partner in getting labor-rights language in the USMCA trade agreement. And he's continuing that leadership in this arena as well.

And, of course, you know, a federal lever, an example of a labor standard we'd like to see in the United States is legislation that's called the Protecting the Right to Organize Act, or the PRO Act, which would make the right to form a union into a real right, not just something that exists on paper as many people don't realize it does today in the U.S. It takes an act of absolute heroism to form a union. So that's another lever that we hope to pull at the federal level.

At the state level, the states definitely have a role to play. And we have a labor-energy partnership between the AFL-CIO and the Energy Futures Initiative, and we just announced we're conducting workshops across the country on how to decarbonize regional economies while we preserve and create good-paying union jobs, because we believe it can be done and we want to show – we want to have a roadmap on exactly how to do that.

Certainly, the sector-specific approach, again, that I would highlight is offshore wind. Can't talk about it enough. That sector is showing other sectors how companies and governments and labor can actually work together.

And I'll just end by highlighting that the transition is going to require massive investment in workforce training. And a little-known fact I want everyone to walk away with here is that in the United States, the labor movement is the second-largest provider of training in the country behind the U.S. military. We know how to do this. So we think, you know, high standards for apprenticeship, apprenticeship readiness, that the pathway will be to these good jobs right through the labor movement. We can be the bridge. And you'll have an actual career at the end of the training instead of loading up on debt and, you know, having nowhere to go. So we think that a highly-skilled, highly-trained workforce is going to be the key.

Nikos Tsafos: Thank you. Thank you so much for that.

Ms. Mathai, let me turn to you for the final question of this panel. And I wanted to turn to another of your focus areas, forests and nature, that you've talked about and written a lot. And I wanted to ask you, tell us about the role of forests and nature, both addressing climate change but also adaptation, and in particular the role that these interventions and investments can have in empowering women in particular.

Wanjira Mathai: Thanks, Nikos. And I'll be brief because when we invest in nature, it's, for me, intuitive that we're investing in our own life-support system. So I always think about it that way, and securing the future for our own societies. And so it matters like never before. And it actually shows – this year, if you look at the various conventions that are meeting – the biodiversity convention, desertification, on climate change – all very heavily focused on nature and biodiversity. And so I think it's very clear that we're getting a consensus globally about that. Tomorrow, a big day for climate ambition and increasing the ability of natural systems to absorb even more carbon than most of our economies can do through mitigation is a really important part.

So there's, for me, a wonderful, growing paradigm that's emerging around nature-based solutions that I love. It's produce, protect, restore, reduce. And that, to me, sort of spells it all.

We have to produce agriculture and agricultural products better. It's the single largest emitter out there, and so – responsible for 25 percent of all carbon emissions. So we have to do better with our food production because we are losing biodiversity by expanding unproductively, and then we are also not – we're using too much inputs that are driving climate change as well. So produce better. We must change the way we do that.

Protect. We have to protect our standing forests, our tropical forests. They are by far the most important ecosystems for mitigating climate change, but also for protecting and ensuring health as we know it – COVID-19 itself a

stark reminder of what happens when the barriers between biodiversity and humans are crossed. Today we have three huge tropical rainforests that are the most important lungs of the planet. One is in absolute trouble – the Amazon, teetering on the edge of becoming a net emitter of carbon. We ought to be very concerned. The boreal forests or the forests in Southeast Asia are already net emitters of carbon. A lot of work to be done there around mitigation and restoration. The Congo forest on my continent, even though it's under a lot of assault, remains the only healthy lung the planet has. We've got to redouble our efforts to protect that forest. So safeguarding existing forests is a really important part of how we move forward.

We have to reduce waste. We have to close the food gap. We waste way too much food. And so reduce is about that. But reduce is also about the circular economy, how we can reuse a lot of the strategies and reduce the resources that we produce. And we're doing really well about that, and consumer demand for the circular economy is driving this. So this is extremely exciting.

And finally, restore. Restoring landscapes around the world to create the necessary opportunities for youth especially to build forward better, especially in my part of the world.

So let's produce, protect, restore, and reduce.

Nikos Tsafos: Well, thank you so much. That's a wonderful note to close on.

As I said in the beginning, this is a conversation that looks and feels different depending on who you talk, but it's a conversation with a common denominator. And I think the richness of the interventions we heard today speak to that.

I really want to thank my fellow panelists for being on this conversation. Really appreciate you coming here and everyone for tuning in. The conversation continues. Thank you so much for joining us.

Seamus O'Regan: Thank you, Nikos.

(END)

