

Good evening and my name is Otene Reweti and I work for Auckland Council as a Senior Advisor Maori Outcomes, and today it's my privilege to begin this session. The way that we begin things at Council with a blessing and just some thoughts around it. So, there's a saying in Maoridom. Ma te rongoa ka mohio Ma te mohio ka marama Ma te marama ka matau Ma te matau ka ora What does that mean, I can hear you saying? Through perception comes awareness. Through awareness comes understanding. Through understanding comes knowledge. Through knowledge comes well being. And as we come to have this conversation this evening, we have another saying in Maori that goes, "The language of chiefs is about talking to each other". So, if you want to be someone that leads people, you need to be talking to others. Can't do it by just talking to yourself. So, this evening, as we come to hear this conversation, I'll just open it up with a blessing today. So, the blessing is about the baskets of knowledge. So, we, legend tells us that Tāne ascended to the heavens to bring back three baskets of knowledge for mankind. So, I paraphrase it to be the baskets of the knowledge of yesterday, the baskets of the knowledge of today and the baskets of knowledge for the future. So, that mankind may develop and look after itself, really. So, without much more ado, I will say this blessing for us. Welcome to this session tonight - Auckland Conversation and even though it's the shortest day, a big welcome to us all.

Kiora, thank you for that lovely mihi. Good evening, everybody. My name is Corin Dann, tena koutou. Welcome. I'll be facilitating this conversation this evening. I love the fact that it's called a conversation because it is a chance for you guys to interact and really do this together. Now Auckland Conversations provides an opportunity to inspire and stimulate your thinking about the challenges facing Auckland. Tonight, we will welcome international sustainable expert, Matt Peterson, who I've had the pleasure of hearing from yesterday at the Green Building Council's summit and it was fantastic. That is going to be a real treat. It is a chance, really, to discuss the challenges we face as a city, as a country about getting climate ready and what it could mean for this city if we do not do it and if we do not do it fast enough. So, thank you very much for joining us tonight. I'm entirely impressed by this turn out. I would never have believed someone would suggest to me that this many people would come out on the shortest night of the year to hear a speech on climate change. And I do believe it's a sign that consciousness around climate change and climate issues is growing and it's got to be encouraging. So, thank you very much for joining us. There is also people watching online via the conversations, Auckland Conversations website. So, welcome to them, too. I know you're out there and you will be enjoying this. A few housekeeping notes. First and foremost, if a baby arrives, I will keep you posted. I've got a highly charged smartphone here with a thousand alerts on it. It'll be buzzing like crazy. I'm sure yours probably will be as well. Now, in the unlikely event of an emergency, an alarm will sound and we'll be directed out of the building by the usher's bathrooms and located outside of the upper ends exit downstairs in main foyer about here. And finally, keep the

mobiles on silent. I'm sure the alerts will still come through. Now, some thanks quickly for the sponsors tonight. To the New Zealand Green Building Council who have collaborated with the Auckland Conversation on this. And our thanks, too, to our Auckland partner, Southbase Construction, our design partner Resene and all our programme partner supporters.

This is how it's going to run. Well, the format for tonight will be a keynote speech from Matt who is the CEO at Los Angeles Cleantech Incubator and many other things. I'll brief you on him shortly. Followed by a discussion with our panellists. You'll see the chairs there. Then we will open up the floor for questions as part of that discussion and we're also using Slido, which was new to me yesterday at the conference but is a great tool. It's an interactive tool that allows people who perhaps when asked to stand up and ask a question can go to the Slido website and you can then ask your question via there and it's pretty easy to use. You don't need an app. You just go to Slido on your browser and you'll see that you can just put in the # Green code and then it's really easy. A little box will pop up, you can put in your question. They will be collated by somebody else somewhere and then they'll pop through and I can relay them through to the panel. I strongly recommend you do it. It's an excellent way to get some questions through. But if you do feel like standing up and asking a question, there will be microphones available, as well. We also welcome you to tweet in terms of the social media. Keep it coming, so you can hashtag, that # AKLConversations. So, if you're out there watching in the twittersphere or on the internet, do get involved in let us know what you think. We are always trying to ensure, of course, that Auckland Conversation events are inclusive and accessible, so do speak out. Get involved and tell us what you're thinking tonight.

So, on to the Conversation topic. It's a big one. How climate ready are we?

Auckland and New Zealand is clearly a highly desirable destination. It's pretty much clean and green. Maybe not as much as we sometimes like to think, but certainly by world standards. We make money here from sending rockets into space. We create movies here. We're doing a lot of things very well and we see ourselves as fine and fair. But how true is our perception of being green, innovative and fair and are we really ready for climate change or are we in for a big surprise.

Tonight we're going to dive into this complex topic with the aim that we, well, I guess that we all walk away a little bit more informed, a bit more connected and a bit more inspired to act if we

want to. And that gives me the chance now to introduce Councillor Chris Darby who would like to come up and give a formal welcome.

Tēnā koutou and welcome everybody. Namahi Otoni, where did he go? For your welcome on behalf of Natafuta Orakei and I acknowledge the hapu there.

Look, greetings to you all. It's the longest winter night. We often get confused, don't we. Shortest day, longest day? Longest night but it is going to be the longest night and I understand that the solstice is at 10:27 tonight. Get ready for it. You might have a baby at the same time.

Look, thanks for coming out tonight. I do want to acknowledge my Councillor colleague Ross Clow, which is finance, who's here to night and we've just had an announcement from council this afternoon that is related to today. We've just lodged, had accepted on the market a two hundred million dollars of Council Green Bonds. They're our first green bond. First green bond in the nation and the market just swallowed it in three days and they want more. So, Ross' work in behind and the whole of the council. Hey, thanks for coming out tonight. Thank you, also. There's a number of local board members here, as well. So, thank you for coming along and they all make up the Auckland Council. So, the discussion tonight and Matt's going to be the main act leading this, of course. Then we'll hear from him soon. Auckland, question mark, are we exposed. We sure are. And the other part of that questions is, the trust and consequences, aspirations of a climate ready city. Auckland. So, we are here tonight, all because we do care. And in some way, we all care about the future of Auckland. We care about the transport choices that we might have now and in the future. The quality and supply of housing. The health of our environment and the aspirations we have for a climate change ready city. And how we can prepare ourselves for the impacts of severe weather events on our properties, communities and environment and a lot more than the change in the weather. And I'm sure Matt will be referring to that.

Climate change is no longer something that's breathing down our necks. It's not something that's coming. It's not on someone else's horizon. It's right here now. And climate change is very real. Every day that we live our lives from now and into the future, it affects us all but it particularly affects the most vulnerable. The benefits of action look promising on paper but the truth is that we are still early on in the path to a cleaner, safer and more equitable climate

change prepared Auckland very early on. Now, sitting on our backsides, going the good old gluteus maximus, that is no longer an option. And inertia - that raises even more serious risk. So, this will affect not only our infrastructure, as we often, is highlighted to us, it not only affects the environment. It could lead to severe population health impacts. And I think we might be hearing about that, too.

We are working with government and we have to do this together. We do work with community as well as research institutes, universities, and together we need to lead the way on finding tangible solutions. We can start with transport and we are. Energy, waste, green infrastructure and urban regeneration, critical to Auckland.

We are in the process of building rapidly now, or at least planning rapidly and about to build rapidly, a 21st century worthy public transport system with rapid transit and walking and cycling at its core. And the Auckland Transport Alignment Project with government has brought us together there to assemble a 28 billion dollar package over 10 years with investments like city demand, light rail, the Eastern Busway, a bus priority programme that you've never seen before. Lots of improvements there, rail electrification to Pukekohe. Additional trains and trek upgrades. And of course, completion of the city rail link underway and a massive refocus on walking and cycling. It is going to be a shape shifting 10 years ahead for Auckland. There have been and will be, and we all at council, we must fess up to this, there have been missteps along the way and there will be more missteps along the way. We are going to make some errors along this path to being climate ready Auckland. And we have to acknowledge that we will make some missteps. For example, nowhere in the ATAP document, the must lorded ATAP document, the Auckland Transport Alignment Project document, did the words climate change appear. They weren't, if you do a word search, it's not there. We have covered our bases, of course, with the regional land transport plan. Just confirmed yesterday at the Auckland Transport Board and there it is solidly embedded. And we need to and must ensure a continued and prioritised focus with coherent plan of action going forward. So, we've got some challenges here. We've got Auckland's transport network is the biggest source of emissions for Auckland, that is. The nation is different. And we've heard from Aucklanders time and time again that the biggest challenge in Auckland is transport and hot on it's heels, of course, and probably right along side, is the supply of housing and the quality of housing.

We're on our way to delivering some of those transport solutions further framed by yesterday's confirmed regional and transport plan. We're beginning to invest in clean energy Beginning at a local level and we're working in partnership with entities like Vector and Entrust, with solar technology in schools on the rise and you've seen the illumination of the Auckland Harbour Bridge, as well, with solar generated from the Wynyard quarter.

We are making big end roads in walking and cycling. And as I term it, it's becoming just everyday transport for everyday people. Just mainstream mode of movement around our city. Nothing too extreme about it.

We've invested about 200 million dollars in the last three years and we've built kilometres of new cycleways and we're getting to separate more and with increased cycle trips into the city centre via upper Queen Street, just that section alone, by over 400 percent since 2013. And we've added about 52 thousand new people getting on the saddle in 2017 alone, and that's enough, if you can picture it enough to outsell Adele at Mount Smart. So, more's on the way and I'm promising you that, with the confirmation of the regional land transport plan yesterday. One idea that I had that I've been working on for far too long. It's eaten up a decade of my life, is Skypath and Seapath and hopefully, I'll be riding that and you'll be riding that in the summer of '21.

So, lots happening there. We have future proofing and greening our infrastructure but not enough. We're going to crack the pace on there. A lot happening there. We're daylighting streams all over Auckland, from Takanini with the Puhinui Stream right through to the Oakley Creek out there by Carrington. We're managing our waste better and investing better the. Shifting to a more circular economy. Community recycling centres are proving hugely popular and of course, every tonne that goes there is a tonne that's not going to landfill. And we are also, Aucklanders, creating quality spaces for people, as you've seen in the city centre, the waterfront. We're embarking on a big waterfront reveal in the coming couple of years leading up to the America's Cup. We're enlivening our waterfronts from the Waitemata waterfront right across to the Onehunga Waterfront and we'll have a key announcement on the Onehunga Waterfront in the next few weeks. And from communities there in Avondale, right through to Manukau and it Takapuna is willing, we'll even revitalise that place as well. So, I think you know what I mean, don't you?

All developments that our Panuku are undertaking, they are place making and regeneration agency and it's not about financial, deliverables. It's about strategic human focused outcomes that we ask of them. They are working toward a home star standard and to deliver healthier and more efficient homes with the delivering homes and we challenging climate change on all fronts now.

We've just confirmed with our CCOs a requirement to address climate change in everything they do. It's paramount. And they got a unique letter on that from the Mayor's office via Ross and myself only just three months ago on that.

So, we're a member of the C40 cities climate leadership group and Mayor Phil been over there. He's absolutely committed to, and we are all committed, to creating green and healthy streets. Fossil fuel free streets. Part of that declaration, we're shifting our bus fleet to electric and decarbonizing the city centre. Last year, C40 bestowed upon Auckland, the coveted International Waste Award, so we're winning on a few international fronts, as well. But we need to continue to learn. We're doing reasonably well but we're just out of the starting blocks. We just want to be best technical experts in the world at that working with the best technical experts in the world - the petitioners and the city leaders.

So, today marks two weeks since the launch of engagement on government's Zero=carbon bill and Auckland's Climate Action Plan. You can get involved by providing input on that and to the government, of course. We welcome that. One thing I'd like to mention today as an intro is a statement of coming up, I think 10, 11 months ago. Ten months ago, I think it was, our Prime Minister called climate change "my generation's nuclear free moment." I think it's struck a chord with many of us. It really set in my memory very very strongly. At that time, it was a bit of a catch phrase and it was repeated with probably not a lot of understanding and the government have now committed to the climate commission and James Shaw is leading a whole body of work and I'm absolutely confident that we're going to see some real change come out of that. But for me, I went back to that nuclear free moment. I was, I think, latte teens something like that. I recall that moment, anyway, and it was early '70s. That's what Jacinda Ardern was referring to. And my strongest memory of that moment, I started to reflect and I remembered a big Norm Kirk, the then Prime Minister. This nation, this small nation, big little nation, bottom of the world sailing two frigates with a cabinet minister aboard to the edge of Mururoa blast zone. That's what she was referring to. So, it wasn't a catch phrase. It had meaning behind it. It meant we've

got to be bold. We've all got to step up. The leadership at the top echelon has got to step up. And all the leaderships, Auckland council, leaderships of companies, leadership within families. Leadership of individuals. We all have to step up. That's what happened back in the '70s. Everybody stepped up. That action of Norm Kirk, summoned the nation and it summoned the attention of the world. The big little New Zealand down at the bottom of the world shifted from stand by to stand up and act. And that's what we need to do on climate change and I'm sure that's what Jacinda is referring to. And the results immediately followed. One of the greatest challenges of our time, the G20 leaders of state of climate change, this is our generation's moment. In our time and it's of our making. Climate change is upon us and we have no choice but to deal with it.

That change is not limited to what we often think is the weather, droughts, coastal inundation, maybe. It is also about species extinction, large scale crop failures, rampaging new diseases. It's about volatile financial markets and it's also about the risk of armed conflict and mass migrations. And if you think the migrations that arrived on Germany's border and the other European nations was related to just conflict, think again. It was related to climate changes in Syria over about three years. That put people into the cities, people into conflict, and then armed conflict and then people on the move.

So, that is a pretty dark taste of one side of climate change, but none of us are immune and I want to emphasise that. So, to all of you tonight, thank you for coming along to hear Matt, who's going to enlighten us now. For taking the time to care about this very important topic for Auckland and the nation to get involved, get off our backsides and do something about it. This evening will prove enjoyable, I'm sure, and very interesting, but really, I want my invitation to you is to make it productive. So, make it productive rather than just enjoying and interesting, means to tune in tonight and take one or three takeaways from tonight and look at how you can take those takeaways out of this room tonight and take action. Be that you personal self, family, work place, or the city. So, Nau mai and kia ora mai, thank you everybody and we'll welcome Matt.

- Alright, thank you very much, Councillor Darby. Much appreciated, right. Let's introduce Matt Peterson now. A long list of achievements, too, I can tell you. He is the CEO at Los Angeles Cleantech Incubator. Prior to joining that, he was appointed as the first ever Chief Sustainability Officer for the City of Los Angeles, serving as a CSO for four years. Matt was also the Chief Architect of the groundbreaking sustainable city plan and helped create the climate mirrors. He also co-founded Global Grain USA and led the organisation for 19 years as president and CEO. The organisation was a pioneer in greening of affordable housing, schools and cities as well as helping grow the solar sector. Now, in the aftermath of Hurricane Katrina, Matt put forth a vision and mobilised resources to green the rebuilding of New Orleans. Matt is chair of the Climate Mirror's board, a board member of Global Green USA, Habitat for Humanity of greater LA, Centre for Environmental Health and the Sir Edmund Hillary Institute for International Leadership. He's also a member of the Council on Foreign Relations, the LA Sustainability Leadership Council and has served as an advisor to the Clinton Global Initiative on Energy and Environment while a CGI member for 10 years. It is quite remarkable you found the time to get here. It's an impressive achievement. Matt Peterson, if you could come to the stage. Thank you very much.

Thank you. Kia ora, it's good to be here with you. Thank you very much. Councillor, thank you for the warm greetings and the great framing of your conversation. It's impressive to hear what you and your colleagues are doing here in this great city of Auckland. This is my second visit to your amazing, beautiful nation. My first visit was 10 years ago to Christchurch where I first got involved with the Sir Edmund Hillary Institute and was giving my remarks down in Christchurch and created an international diplomatic faux pas by getting then Prime Minister Helen Clark to hug the President of Kiribati, which I guess was a small diplomatic incident but it was one where I think I worked through it and it was a great welcome to your nation.

I have a couple questions first of all. We have the, it looks like, the French Rugby team staying at our hotel across the way. How many All Blacks fans do we have? Anybody? A few. Alright, okay, good. Good to know. A couple other questions, how many people love where you live? How people love your home? Alright, good. How many people love humanity, other people? Your fellow citizens. Oh, fewer, fewer hands. Some people we don't like. That's good to know. I think we're all the same way. Alright, good to know. I will give you a little bonus at the end. Some of you were tuned into this yesterday, but most of you weren't. I'll give you a little secret of saving the world, but that's later.

First, I just want to share a quick little story that kind of brought things together for me around how we treat each other as human beings and how we treat the planet.

I went to the eastern part of the Democratic Republic of the Congo twice with an amazing individual - A woman named Eve Ensler, who some of you may know from her work as a playwright. She wrote *Vagina Monologues* and some other amazing pieces of work. Eve went there to bring several of us to see how, with local partners, she's building this place called City of Joy that was providing a place for women whose lives and bodies had literally been torn apart by the war and atrocity of rapes and atrocities that are happening in that part of the world. And one of the things driving that violence and those horrible acts that are being forced upon women and girls, but also men and boys, was the drive for getting hold of rare earth minerals that power our electronics. Cobalt, tin and other rare earth minerals and what is now known as conflict minerals. There's been some acts in the United States and other parts of the world to try to change that, but what struck me wasn't just this horrible atrocity going on and still going on. It was that these women, I happen to have the great honour to dance with at the ceremony that opened this place called City of Joy, which houses and helps 92 women at a time after their bodies have been repaired down the way at the Ponzi Hospital by an amazing man named Dr. Mukwege, that they were given their lives back by their own accord. That they were able to, with time and space and help and classroom training, be able to, over the six months, reclaim their lives and dignity. Many of them are going out and starting businesses.

So, this to me was the pinnacle of really seeing how we, the most acute point I could ever find in my life of how we treat the earth and how we treat other people. They come together and we need to remind ourselves of that around fairness and equity, climate change and that we really can move forth together in tackling equity, economy and the environment together. It's fundamental.

So, quick story of that sort of brings to life a little bit what Corin shared. I started something when I was running Global Green looking for citizen entrepreneurs because we need governments to act. We need corporations to act. We need cities to act and we also need to take responsibility for a corner of our world.

So, when I left Global Green, I kept the idea alive and I called it Citizen E and so for my 50th birthday, a little over a year ago, I asked friends and family to give money to help support an individual we would find in the United States who was taking responsibility for a corner of the

world. So, just about a month ago, we finalised our search. We picked the winner and her name was Bronte Velez. An amazing young woman who had decided to turn violence into hope by after she lost a friend to gun violence in the U.S. Something that is really unfortunately acute in the United States versus the rest of the world. And she did that in a way that connected the dots. She said let's take guns, melt them into shovels and plant trees on the 50th anniversary of Martin Luther King Jr.'s assassination in Atlanta. So, she planted trees. She did that. She melted these guns with some partners, turned them into shovels, planted trees throughout Atlanta, including the Martin Luther King Centre in Atlanta. And to me, she really embodies that sense of hope and opportunity to bring together these crises and really a chance to heal each other and heal the planet. So, citizens. We need citizens.

- What is her name again?

- Bronte Velez.

- Thank you.

Citizen cities and cleantech are sort of the theme I'm going to frame here with you, but this next part of my journey takes me into the city of New Orleans which Corin talked about here. This is when I was able to give then the head of Green Cross International. I ran the U.S. affiliate, Global Green. Mikhail Gorbachev was Green Cross International President and I took him down to the lower ninth ward in New Orleans. One of the most vulnerable and the poorest neighbourhoods in the city of New Orleans that was devastated by human hands of not just failure of infrastructure but, of course, climate change. Storm surge and storm intensity made worse by climate change combined with the failure of the levees. And this whole neighbourhood and the lower ninth ward was just completely washed away. The lives of primarily African American families whose homes had been passed through generations and whose income and lives are very vulnerable. And most would never return.

So, along the way, we decided to say we're going to green the schools. We're going to green the city. We're going to, so we leveraged some grant dollars from the Clinton Bush Fund after Katrina. Two million dollars. We got the school district to build showcase schools with better daylight where students are shown to learn better and test better when there's better daylight, better air quality in those classrooms. We also built this showcase of a home that's now a village. I don't have a photo here of the final product but this is about a decade ago where this

well known individual partnered with us to do a design competition, Brad Pitt. And we went then to build five single family homes. The first green homes in the lower ninth ward. Five lead platinum homes and then Brad went on to build about another two, I think 50 to nearly a hundred now. So, there are now more lead platinum homes. The green is standard of homes in this neighbourhood, more than any other place in America and to be honest, it had nothing to do with me or this famous guy. There was an individual named Pam DeSheo. An activist in her neighbourhood, before I showed up, before Brad Pitt showed up, and said we're going to rebuild this neighbourhood to be the first carbon neutral neighbourhood in America and that was that. She built that support from the community. To do it otherwise, we would have been these interlopers saying we're going to force you guys to rebuild the way we want you to rebuild. She built that community support and that's really who's the true hero. Pam DeSheo.

So, working with cities across the country, then I would turn my work to the city of Los Angeles. This building is famous. Our city hall. Not just from the show Dragnet. Anybody remember that show? Not so many. But others of course where our city halls appeared as a star in movies and television. And really, there in the city, we credit our first ever sustainable city plan. You can find it online at Plan.LAMayor.org. It was the first comprehensive plan of its type for Los Angeles, focused on equity, the environment and economy. Again, how do we make these things work together to create a better, more robust city? Los Angeles may be known as the home of Hollywood and lots of other things and but we're really, really moving faster on the path toward sustainability.

Just two weeks ago, Mayor Garcetti, our current mayor, made a commitment to make LA to be carbon neutral by 2050. So, our previous goal was 80% production over 1990 levels by 2050. Now we've moved to carbon neutral. The city is moving towards 100% clean energy. We started that when I was there. We're moving towards zero emissions transportation. All electric buses by 2030 for the city and the county. And on and on and on about the things we're beginning to do. Yesterday talked about some of our building initiatives, as well.

But while there, we did something that was important when President Obama was in the White House. We collected these mayors across the country from cities that were early adopters. Leaders, not just C40 cities as Auckland is, but some smaller cities. Cities of 180,000 even, that were really making a difference in places like everything from Somerset, Massachusetts, to Berkeley, California, to Los Angeles to Houston, Texas, where there was a strong mayor in this



oil and gas city. These mayors here, Mayor Garcetti on the right. Mayor Rogero of Knoxville, Tennessee and Mayor Marty Walsh of Boston and Mayor Turner of Houston who's not pictured here, really all came together to lead this group of mayors to put wind at the back of President Obama going into the Paris Climate Agreement negotiations.

Well, then what happened? Yeah, we got a great climate agreement, then somebody else got elected to the White House we weren't so sure about. So, we went from 33 mayors. We sent an open letter around. Within two weeks after Trump getting elected, or some say, "he who shall not be named," but, and we had 70 mayors all the sudden sign this letter saying, "President Elect Trump, please work with us". Cities are in the front line of climate change. But it's also where the heart of innovation's happening. These are where the solutions are on the front line, where we're changing people's' lives. We're not just filling potholes. We're putting in transit. LA just passed 120 billion dollar transit initiative. The largest infrastructure investment in the country. "Come work with us across the country to put infrastructure in place that makes us more resilient to fight climate change. To reduce greenhouse gas emissions. To protect our most vulnerable."

We got silence.

Months passed. We get word that he's going to pull out of the Paris Climate Agreement. We prepared for that moment. The day in the rose garden in the White House, at the White House when he pulled out on June first of 2016, excuse me, 2017, we were ready. We had 70 mayors that day, by that time, who said they were going to adopt the Paris Climate Agreement in their city. By the next day, we had 170. Within two weeks, we had 350. Now we have over 400 mayors committed to that same goal in 47 states across our country. So, the voice of climate resistance and the will of action is alive in the United States of America. We will continue to lead.

As California is really known as the leader, there are 12 other states across the country that are joining with us and not everything's perfect. Just like it's not perfect here. You need a better building energy code here in Auckland and the New Zealand. I've heard that and we're going to do what we can to share our knowledge there. Same in California. We're still heavily dependent on the extraction industry of oil. Los Angeles was built on oil but that's not our future. Our future is moving to zero emissions transportation and one of the success stories that we put in place, I went to this place called LA Cleantech Incubator.



This was a fun little greeting I got my first day, a welcome mat. Excuse me.

Our focus on start up companies. So, again, citizens, cities and clean tech. These are our various solutions. Some of which are really exciting. Like our first electric aeroplane. Larger than two passengers that will be in the air and the world will be our start up Amp Air. Eight passenger electric aeroplane that can go up to 100 miles in by the end of the year. They're going to do their first test flights by the end of the year and a lot of other exciting companies.

We have this amazing campus that is this stunning example of a partnership between our municipal utility in the city of Los Angeles between city hall and we're a non-profit. They built this facility, 61,000 square foot space, clean tech, co-working space, event space, proto-typing centre and it's owned by the city that gave us a dollar a year lease and said hey, go do great things. How rare is that? Really amazing trust and innovation that's happening to move forward towards a cleaner future. I won't go into this. You can look at our website, LACI.org, LACI. We're focused on creating jobs, cleaning our air because our most disadvantaged and poorest communities suffer the most from poor air quality and then we're also working to reduce greenhouse gas emission.

Quick little exciting announcement we just had. We're creating this partnership between utilities, the mayor, our top state regulator and other partners to say how can we get to 100% zero emissions transportation by the time the world arrives in the Olympics, for the Olympics in 2028. Throwing down a bold, audacious goal and I think that's something we need to do everywhere, so we're really focused, again, on citizens, cities and clean tech.

The secret to saving the world, right. New Zealand, before I get into that, I just wanted to echo something the Councillor said. New Zealand's a small but mighty country. And just as you did with the nuclear free zone and beyond that, really putting people's lives at risk to say the right thing. Not just say the right thing, but do the right thing. We need you to be bold. When you stand up and you take action in this small but mighty nation, people notice. So, when your Prime Minister, hopefully she's able to come to California when Governor Brown hosts his climate summit in San Francisco in the middle of September and your mayor and your city councillors come, hopefully, they've come with bold commitments that lead the world in the same way that you lead on suffrage, that you lead on nuclear free zones, that you lead on apartheid. Please help us and humanity change the course of our future. So, with that, I want everybody to stand up for a second. Secret to saving the world. Put your right hand up. Repeat after me. Let's

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- Let's.

- Go.

- Go.

- France.

- France. Oh sorry. Just a little All Blacks humour.

- I

- Love.

- Love.

- My.

- My.

- Home.

- Home. And I love humanity.

- And I love humanity.

- Now give the person next to you a big hug. That's enough hugging back there. Alright so, when you come to California or you go to the next conference or parties, these boring meetings, but where real commitments happen, please give the world the New Zealand hug or a hongi, I think, maybe even more appropriately. So, thank you very much.

Thank you very much, Matt. Fantastic stuff, right. We're going to bring, as you, Matt, you're going to come back up if you don't mind and take the seat down at the end and we'll bring up a panel now which we're going to open up to questions from Slido and also from the floor, as well. I'll try and alternate them and our panellists, we're very lucky. We've got more international guests as well. I'd like to invite CEO of the Green Building Council of Australia, Romilly Madew,



if you could come up. Thank you very much. Danusia Wypych from Z Energy. I hope I got the name right. Dr. Rhys Jones, the Public Health Medicine Specialist and senior lecturer in Maori Health at the University of Auckland. And John Mauro, the Chief Sustainability Officer at Auckland Council. Welcome to you all.

Right, if I could get things rolling. John, we heard earlier on from Councillor Darby about some of the things Auckland was doing well. I wonder if we could, you could illuminate us perhaps with some of the areas where we've got real shortfalls, where those acute problems might be so that we can think about those.

Thank you for that one. Can you all hear me? This one's for you, Penny Perit, if you're still out there because she's grading me. Look, I think Councillor Darby did a fantastic job saying what we're doing and in fact, just three hours ago, for the first time ever in New Zealand, we launched our first issue for a green bond and I think that's something that deserves another mention because what we're trying to do is say these are the outcomes we want. Much like we did with, we want you to fund a targeted rate for the natural environment. We want you to fund a targeted rate for, you know, basic, the fuel tax, for instance. So, we want to connect outcomes to the funding source and that's something we're doing. So, not to dodge the question and talk about what we are doing, but I'm warming up for what we're not doing well. I think the material impact on climate change and why I think a lot of us in this room are here and why, what gets us out of bed this morning, is what's at risk here and where we put our communities, how we grow, how we get around. Those things are material to Auckland and Aucklanders. So, I would talk, hopefully, a bit tactfully about are we actually funding the right choices for transport. As Councillor Darby said, we made a historic move to actually do that. Did we go far enough? Maybe we could debate that. Same thing with our spatial forum. You know, a great city is a dense city with options and amenities for everybody. Are we there yet? Maybe not, we could perhaps debate that. A zero carbon economy must be circular. Is that the case in New Zealand, when we're freaked out when our recycling gets burned instead of gets sent off to where it needs to go. Let's debate that. So, we've got a little bit of room to grow.

- Very good, Danushia from Z Energy. I'm interested in you being here from an energy company and the, what sort of momentum is there now coming from business on climate change. Is it real? Are we seeing a genuine change and urgency, if you like, from business?

- Yes, for us, this is a conversation we've been having, particularly with our business customers from our inception, you know, between team. And we're out of conversation and into action and so our big New Zealand businesses. So, there are people who recognise that the carbon intensive, the supply chain is important. It's important to their customers. It's important to the international trade. So, our activity around the first commercial buyer fields plan here in Auckland, that's a commitment to action. Conversations that lead to action. Looking at ride sharing. Looking at our role in mobility rather than in energy and saying, supporting Mevo with the EV vehicles in Wellington City. These are the sorts of actions that evolve your business and create a business that's really for climate change.

- Very good. Romilly, from Australian perspective, I heard you make some comments yesterday. I mean, I wonder, is actually Australia maybe a little bit ahead of the pack when it comes to, or a little bit ahead of New Zealand in terms of targets and getting your act together and some other stuff.

- I know you could probably beat us on rugby and cricket and make numerous commentary about that. But I think when it comes to this, I took a number of things away yesterday from that New Zealand green voting council housing summit. Our building code, it has been in place for a really long time and it's incredibly strong and we, as the industry, engage very effectively with the Australian Building Codes Board. So, we've done, we've raised \$750,000 with six state governments and the industry to make sure the building codes upgraded next year and that their trajectory goes into place for every three years of an upgrade. Infinite zero by 2030 and that we, you know, we're really driving change at a leadership level. It seems to be, there's a lot more collaboration in Australia. I think part of that is you have a national government and local government and you have a fragmented property industry, so I'm not, it's just an observation. In Australia, we have local, state and federal and a very tight property market. So, you could get amazing impact from dealing with 15 CEOs. Eight of them sit on my board. So, where our country has been able to achieve a lot, I think because of some of the structural make ups, but I really can't stress enough, the word I used yesterday, was collaboration between industry and government. And it has to be genuine collaboration and it really has worked very effectively in Australia.

- And thank you. Does that extend to Dr. Jones from a public health perspective, from an inequality perspective and the impact of climate change. We hear a lot about adjust transition.

But it seems to me that those in lower socioeconomic groups are going to potentially end up bearing a much bigger cost from that transition. Do you see it as being just?

- It all depends on how we do that transition. And so I think that you're absolutely right. That not only will climate change impact, you know, people like Maori communities, Pacific communities, low income neighbourhoods, hardest and first and worst, but also the actions that we might take to address climate change can also, you know, disproportionately affect those communities and exacerbate the inequities. So, what we need to do is plan our climate action so that we actually maximise the ability to pick up on the co-benefits so that the huge win/wins that we can get from well designed climate action that can improve our health, that can create more equitable society and more fair societies and mitigate or minimise those negative consequences that we can get from poorly planned climate action.

- Matt, what's your advice to the people on this panel, the people out there about how to get that collaboration that we're hearing is needed from all these disparate groups, so that we're all pointing in the same direction?

- Well, I mean, hate to be trite but trust is obviously the key place often to start and one of the reasons I, when I give talks like that, I try to end with the hug as the secret to saving the world is because it's shown that oxytocin goes up when you have human contact and that what is fundamental to trust is that connection. So, whether it's a handshake or a hug or a hongi, you know, this is a piece of how we build trust and collaboration is only possible with some willingness as well as some form of trust. So, I think that's universal hopefully in the world in the way to build trust, but I think you've got to find where you do have to build that trust, to find points of agreement. Identify where you have disconnects or a gulf of disagreement and find how you build on those areas where you agree. So, I think that's true in any process. It's certainly my experience and others are probably much more expert than I could ever be on that topic. On climate, where can you say where we're doing well here in New Zealand, but then where do we go on this challenge. Okay, it's a hydroelectric dependent economy and when drought comes, we have electricity crisis here just like we have our version of that in California. We have extreme weather and fires and that disrupts the electricity grid. You need resiliency in the grid. You need some distributed energy. You need some battery storage or pumped hydro storage or whatever it is to be able to have that resilient grid, to be able to work through an earthquake or extreme situations when you do have a drought and an electricity crisis so you

don't have to always turn to coal and natural gas. How do you, if you're going to move to a carbon neutral economy, you have to tackle these and so how do you get people to work together of course. The built environment is often one of the biggest sources of greenhouse gas emissions besides transport. How do you really reduce the energy load through the housing mix and find those places to build towards and throw out some big, hairy, audacious goals and see how you can work there to get there sooner. And then yeah, you're not going to necessarily get there right away, but I think if you're not bold at a time like this, then it's a challenge.

- Danusia, we know we've heard from Simon Bridges. He said that he wants to sign up to the Climate Commission. So we're lookin' at carbon budgets down the road at some point. Is that, did you need that in business? Did you need that bipartisanship or are you just going to get on and do it anyway?

- I think it helps a number of businesses, so for our business, we made the choice to determine our own future. But for wider business in New Zealand that certainty that's provided in the structure, in the government structure, enables long term decision making. You got to remember, a lot of New Zealand businesses are small businesses. The people who are making decisions for today and tomorrow to make decisions and commitments that are ten years in the future, they need to know there's not going to be a flip flop around and that they can make commitments, make choices around how they're going to, you know, do in terms for the carbon in their chain or invest in carbon circles with clarity and certainty.

- Alright, I'm going to bring in some Slido questions that are coming in here. John, the certain one here, in light of the issues around central government, but will Auckland Council propose a regional carbon budget? This is from Nick Bishop, by the way, versus sector budgets that cross regions for the Zero-carbon bill. So, it's an interesting idea, isn't it. I mean, you're going to have your own carbon budget.

- Yeah, thanks Nick for the question, if you are here. Look, I, we are right smack dab in the middle of this thing and that's what's really exciting. Just two weeks ago, as Councillor Darby said, we launched our engagement on our local climate action plan alongside central government's Zero-carbon bill. To me that's pretty exciting because we're saying just in the spirit of trust and collaboration, let's do this together and it's great to hear also that, you know, the opposition, Simon Bridges, says yup, we're going to sign up for this. So, it's pretty much all hands on deck and we've agreed that. Now what? And in the Auckland context, we would be

foolish not to align with an ambitious central government goal. That's been laid down quite clearly by the Prime Minister, by the Climate Minister, James Shaw. So, we will undoubtedly want to align to that. They're also talking about sector targets. We would want to align with that and in fact, when we talk about our material emissions in Auckland, it's transport folks. It's how you got here today. It's the choices you have to get home. It's how you keep you and your family safe where you go. It's about transport. So, if we don't tackle the material impacts through carbon budgets, we won't really be cracking the problem.

- Dr. Jones, would you expect those carbon budgets to have some sort of subsidies for low income ?

- Absolutely. I think, you know, when we look at a lot of the actions that we need to take to address climate change, carbon budget and particularly putting a price on carbon is almost always regressive. It almost always impacts on low income communities and those who are already struggling. Those who are going to be hit by climate change hardest, the most and so what we need to do is that when we're using the revenue from those sorts of mechanisms, is reinvest that and ensuring that we don't exacerbate those inequities. And I would also pick up on John's earlier questioning around are we going far enough and I think, and thinking about the level of ambition that we have, both within the Zero-carbon bill, but also more locally within Auckland and I just put out the challenge there that I think our level of ambition is nowhere near where we need to be. We should be aiming for zero carbon in the 2030s at the very latest. And I think a lot of the targets we have and a lot of the sort of ways that we think about going about addressing those challenges are really not even in the ballpark of where we need to be.

- Normally in Australia, what sort of targets do you the most, is there a target you'd be going for 2030? And where is your government's leadership in comparison to us or, let's put it down to city level leadership, as well. Can you give us some comparisons?

- Sure, so, the Federal Government's quite interesting in that we have a conservative government, but we have, as the Green Building Council, and along with neighbours have done two things which is interesting with our Federal Government considering they're so conservative. One, we're becoming a pathway on the national construction zone and construction code and I've made it quite clear that there's a trajectory in place. The other is we are either deem to satisfy on the national carbon offsets game. And so Novus and Green Star are partners in that. But at the same time, our Federal Government's probably not going hard

enough. So, if you look at this local and state governments, all of them have come out with incredibly, you know, audacious and ambitious goals. Adelaide's a great example. They came out and said we are going to be the first city and so I give this challenge to John. Adelaide has said we're going to be the first carbon neutral city and the mayor went, don't know how we're going to get there, but we're going to do it with you. And they, and we're a partner to that. And they have basically made the bold statement, made the target and then worked with the community and the state government, 'cos the state government had nowhere to go. Once Adelaide had made that announcement, they were kind of like, they'd look silly if they didn't support it. ACT Government, which is the same as the quasi local government, is basically going carbon neutral. It has got the most amazing, that's Cambria. It has the most amazing wind farms and solar farms and has just gone incredibly boldly at what it's going to do, so it's ignored the Federal Government and just taken a really high leadership approach and all our local governments are doing some fantastic and mandating Novus and Green Star and taking leadership seriously. But when it comes to Net Zero, it seems to be new builds by 2030 and existing buildings by 2050 and it's just, and the industry's done the same. Like they've all just set it down and said that's what we're doing.

- Great. Look, here's one that's coming from Slido. Just, I might throw this at Matt to see what he thinks because it's an interesting one. It says how do you include the disability sector in your plans when so many of the climate change initiatives are for able bodied people? Is that something that you've thought about in terms of your thinking, Matt, in your experience?

- Well, what it makes me think about is, you know, disadvantaged communities, whatever, or whether they're able bodied people who face challenges that we need to anticipate just to come back to that in a second but I wanted to talk about your earlier question around our poorest, our lowest income families and communities. They are disproportionately burdened, both at the impacts and the costs and what we've done in California is with our cap and trade revenues, made sure 25% of those billions of dollars every year are invested in low income disadvantaged communities and that we give them additional incentives based on income levels to be able to buy, you know, we get people who buy a used pick up truck to have a gardening business. How do we get them the incentives to be able to afford a cleaner burning vehicle or even an electric vehicle, if possible. And so, we're allowing sort of double counting of incentives to be able to make it easier for that. Back to the fundamental question. I think that when we were working with Habitat for Humanity, a volunteer based home building organisation that works with

families, one of the things that we looked at was resource efficiency and whether you're in a wheelchair or you're eventually going to become an elderly person where you're challenged, we need to anticipate those needs regardless of who's going to live in that home from the beginning and be able to have a place to bolt in a bar in the bathroom so you can hold yourself up getting out of the bath and not have to rebuild the wall. And simple things like that and having more lower level light switches. So, it's not really squared to the question, I don't think, but it is, though, a different way of thinking and approaching the challenge that we put resource efficiency in together with the realities that somebody may become disabled or challenged in terms of their ability as they get older to move about. So how do we put those things in from the beginning.

- Danusia, Z Energy, you've been sort of in the climate space for awhile now, which is often a bit kind of intuitive given you're an energy company, but tell us about the, you have to make a profit. You know, the costs of doing the climate change side of things. Do you see it as a cost? Do you see it as an opportunity where, or is it something you see as part of your overall brand, so you write it off that way? How does it work?

- It's been a write off. It's an investment. So, the, our business needs to evolve and climate change is a way to engage with volatility. It's a way to expand your conversations, your inclusive conversations with the concerns of others. The conversation I had earlier with someone is it's amazing what you can repurpose from our history. The things that we know how to do well. Analysis, insight, forecasting and repurpose them for what we're doing now around climate change. So, our white papers on mobility. Our discussion around how will people move. We're less concerned about what we do today and really concerned about being, and really excited about being, part of the solutions for tomorrow. So, all the skillset that we have, all the things that we've known how to do, we can use them to take on this challenge to work with everyday people. We see everyday people, 65 million times a year. They talk to us. They work with us. They visit our stores. We work with big New Zealand business. We have a massive opportunity. So, for us, it's all about investment.

- John there's a few questions that have come in for the council.

- That's why we're here.

- This one says, this one's from Kath Dewer and this is good stuff. When will Council Westward get to ditch the single use plastics at venues, e.g., our RTS inter plastic cups at water coolers? Our writer's do this question because it is sort of a, it's something quite tangible and quite small but people are getting pretty serious about plastics.

- Completely broadsided by this question. I had no idea it was going to come up. It's not topical at all. So, just, before I get there, I just wanted to pick up on something Denusia said and actually something that Otini said in the opening and I think it's back to knowledge actually. There's something really strong there about knowing what we need to do and actually know what the impacts are going to be. I also wanted to take the opportunity to shout out my team, all of which have worked really hard on something that actually has us have a stronger command of that knowledge. So, we just recently commissioned, along with our CCOs, along with almost all units and council that deal at all with climate change. NEWA to forecast what the climate impacts look like for Auckland over the next hundred years. Various scenarios. Things like soil moisture. Things like temperature. Things like sea level rise, rainfall. What does that look like for Auckland? That's the knowledge we actually need to make better decisions and I just wanted to pick up on that point from the opening and also from Danusia. On plastic bags, let's talk about taking the tangible that we touch every single day and using that as almost a commitment, a personal commitment to do a couple things. One is just do the right thing. You know, we actually do need to do that. So, I'll take that on council. I've got feedback by email today about that exact thing from a council employee who was disturbed by the fact we're not doing it well internally. I just outed us, okay. If we can't do it, how can we expect the rest of Auckland to do it. So, point taken. But I ask everybody to make the connection between that one individual act and actually the bigger picture. That plastic bag is part of an ecosystem of production, consumption, waste, that we don't think about very often until we touch it. So, every time you touch a plastic bag or disposable cup, think about what goes into making that. The energy, the people, the smarts and just command that we do that differently. Stand for the fact that we need to do this differently. Maybe right now we don't have a good choice. We only have bad and less bad, but actually, let's commit ourselves to thinking about the bigger picture. That's an independent, almost a, it's a political act and it's maybe a little bit, you know, symbolic at this point, but let's make this an act that connects us to the bigger picture.

- So, can I just add in there, Woolworths in Australia as of tomorrow, has banned plastic bags. So, it's also on the retailers and you as consumers to use your voice. So, and Woolworth's

obviously, we call as our biggest retailer, and the consumers use their voice and so then others will follow. So, it's also if there's any retailers in the room, why don't you ban the plastic bags?

- So, we actually just made that move ourselves and to link the two points together. It's a really poignant consumer and customer experience. And the bagging logistics to make a simple idea happen. Whether it's removing plastic bags or recycling or designing your rubbish bin. How you design your rubbish bin determines how much people will recycle. And it's that level of consciousness in your business, that willingness to engage with an issue really deeply. Not just, ah, I should do some recycling. I should do some recycling, design it to make it easy and attractive. I should give a reason, you know. Make it easy and enjoyable for people to do it. And then I need to talk to my all my bagging suppliers. 'Cuz maybe they don't go to Timaru as much as they go to Central Auckland. Maybe I'm going to need to work with them, how they build their business. So, we've worked to build businesses to help us to lower these sustainable outcomes.

- I want to be a bit controversial, could I just say, if we focus just on plastic bag, I'm going to try to be a little different here and say, that's actually from a climate perspective, it's a huge global ocean health perspective and marine fishery perspective. Huge important thing for a coastal country like New Zealand. But for climate, unless you take it to the bigger picture in the bigger system, it won't matter, really.

- Alright then, green roofs. This person asks, can they deliver wide spread benefits, can deliver wide spread benefits to climate change. Does Auckland Council have any initiatives to encourage developers and building owners to create green roofs. I'll open that up to the panel in general. Romilly, you might have a view on that. Do they work? Are they a good thing?

- They are a fantastic thing.

- What are they for a start?

- Well, I'll just, so, green, it's not just green roofs. It can be green facades as well. So, it can be a green roof on the top of the roof but with phrases in Sydney at UTS, the whole building, once you're in Central Park, it's like a garden. Like the whole facade is a garden. And the reason it's really important is we all know populations increasing and we, per population are losing our green space. Open space is different to green space. And green space is really really important around the air effectiveness in the city and air purity and also, around just, you know, livability in

the city and our kids need to have the green space. So, what City of Sydney have done, is they have put it into their plan for green roofs and have helped by planning to ensure that basically, Sydney should look like just one big forest. Our buildings shouldn't look like a building. They should just look like forest. So, there's just ways that council can do this, but they're really great for building because it's like a double or triple facade on a building. It literally is like cooling the building down. It has such fantastic impact both on the building, the people in the building and the city.

- Three quick points. We've got three green roofs at council facilities. Or sorry, five maybe. Not a huge number compared to the facilities we have, so hold us accountable there. They work. You got to be smart and clever about it but they work. So, there's a huge opportunity there. And as part of something that will be rolled out relatively soon, our urban forest strategy as council considers an urban environment that green roofs are part of the urban fabric, or the green fabric. Not just street trees, which are hugely important in parks, but also green roofs. Huge opportunity.

- It's an interesting issue, so if we hit towards a point where it matters, at LA looking at compulsory solar panels for new builds? This is going to write an initiative that cropped up yesterday that is going to raise the cost of building potentially. Maybe it comes down over time, but Rhys Jones, for again, for low income New Zealanders. How can they sort of contemplate a solar power situation when they're struggling to get a house?

- Well absolutely. I mean, a lot of the things we're talking about, I think, you know, very much potentially things that could increase inequities and for a lot of low income families, you know, even the dream of home ownership is unrealistic. And to think then of what about even more expensive housing. It's a huge issue. So, I think, and one thing I would say is that in any of the strategies that we're undertaking, if we're not involving Maori Pacific communities, other disadvantages communities, you know, we had the question earlier about the disability community. You know, I think the key there is to involve those communities in the solutions and not just in a token consultation way, but in a genuine partnership and through doing that, we'll find solutions that can pick up on the win/wins.

- Well, let me throw that to Matt. Maybe you could shed some light on that in terms of engaging with lower income communities. Broad range of communities on some of those green builds and those sorts of things. How do you do that energy in a new way that isn't just tokenism.

- Yeah, so, when I first started work at Habitat for Humanity, I was a volunteer and starting in 1991 with them as an organisation and we were trying to create some greener, healthier homes 'cos as I encountered green building, I thought to myself, well, shouldn't that be where we deploy first? The families that have the most problems with asthma. They live in the most polluted neighbourhoods and their indoor air quality is often worse than the outdoor air quality. Energy bills affect them more than anybody proportionately. Health care costs affected more proportionately. Transportation costs. So, why don't we reduce that burden. And you come across this argument. Like if we spend one more penny on a window, that means a penny that's not going in traditional unit of housing. Well, we're also burdening that family with higher energy bills, worse air quality, more healthcare costs, more time off from work, lost wages. It's a downward spiral. So, we have to balance it and be able to approach it together. And that's where we focused our energy on incentives and really trying to work with the building industry and affordable housing to change that. So, I think you've got to be able to approach it together because it's a longer term benefit and find ways to reduce those costs but also put incentives in place. But one of the things to your question that we discovered when we started working with the Housing Authority which is public government housing, is a resident said to us, oh we love trees, but when they're in the centre of the courtyard in our housing, that means a shooter could stand, hide in that tree and shoot down at us. When you've got lights, you need to make sure they're protected so nobody takes them out. So, you do need to engage people and think about it. Now, does it mean you get rid of trees, no. But you find the right kind of foliage and trees that people will be more comfortable with and be able to work through it.

- Can I just speak of a point on disability? We created a voluntary standard a number of years ago called Livable Housing Australia and it's for the aged and the disabled. And so when people are building houses, they either have bronze, silver or gold and it really has forced our industry, when it comes to homes, to really think about how they're designing and building those houses for the future. So, people can stay in their home if they're aged. And it's all those things that you need to think about because we do have a lot of people in our society that are, you know, either disabled or aged and the houses, we need to think differently than how we're used to. And it's really because it was an industry and government collaboration and has been really great for going forward and in picking out the public housing. In Australia, when the government's put out that they want the industry to build new public, social housing, it is got to be a green star standard. So, it's making sure that the energy and water bills are so significantly reduced, because they're getting the same houses as other people are getting. So, it's just making sure they're inclusive and is equity in how we're doing it.

- Now, we've got about 15 minutes left or so. So, if there's any questions in the audience, we did have people with microphones at the back and we could maybe take, start taking a few from the audience.

- As people go up there, can I just add to something Romilly just said. Thinking about access and age communities, there's a couple key points that we need to really keep in mind as a city. One is that providing people the chance to age in place is critical and it's actually something that is mentioned quite explicitly in the Auckland plan that was just refreshed. That's a great community where you can actually be in a place for your whole life span. And then beyond housing, beyond actually the house, thinking about equity in terms of public, space and safety and transport choice is critical for a city that's going to be world class.

- Alright, we've got a question at the back here.

- Yes, I was wondering, is there a conversation going on about having individual carbon rations that one could then sell if you didn't drive a car, so that way if you were poor, you'd end up getting paid. And if you are richer, you would pay your way but this ration would go down over time to the 2030s.

- Interesting idea. Going to open it up to the panel.

- You know, there's been talk of carbon budgets individually and the best you could ever find was an online calculator to tell you what your carbon intensity was or your carbon footprint and if you travel by air, your carbon footprint sky rockets and that's a challenge. But to your point, I think one of things that's interesting about technology is so people, I don't know about here, but I would guess it's been a topic of bitcoin and cryptocurrency. Well, the real underlying innovation there is blockchain technology and we are seeing startup technologies and start ups come to us saying alright, we're using blockchain, so if you have solar panels on your house, you could actually sell that to someone else and that chain of custody is there and real and utilities are beginning to think about, alright, we don't need to put in a metre every time we put in an EV charger. We could give you a lower rate using blockchain technology because we know that you're using it tied to your charging your car. Or if you are a lower income individual and your carbon intensity and you could demonstrate that through blockchain technology, maybe you could actually do that, where you have a verifiable or lower footprint that can be then credit



banked that you can then sell to someone and get some income. It's a possibility. It's becoming more reality with potential of blockchain.

- I think that's a fascinating idea. 'Cos I look at what are the sort of current challenges you face inside of business, so we know one of the simplest ways that we can reduce our day to day carbon impact is by having great telephone calls, great teleconferences. No need to travel. The quality is the same and we ran a scan where you sort of you know self nominated every time you didn't get on a plane. You say I didn't do this meeting face to face. I called the client, we agreed. We've gone from quarterly meetings to quarterly meetings but only every other one is face to face. We had that conversation. What we never brought into it was this idea of making that value move in the company. You know, giving people the opportunity to then invest that credit somewhere else with other people. So, I think it's a really fascinating idea that can go beyond that concept and you could employ it to create conversation and behaviour change right now.

- Alright, another question at the back here.

- Alright thanks for the questions and answers so far. I was wondering, would like to direct some attention and discussion regarding our food production systems within the Auckland area and how, what council thinking is regarding how we farm, how we produce food, how we get it to the city. 'Cuz as many people understand and know and talk about, food and farming is one of our major problems and we get it

- Anyone like to take that?

- I'll just do the quick little punt here because I think it's relevant to every city and perhaps every business. I'd say it's a problem but boy, we do food pretty rampantly here in New Zealand, right. It's pretty amazing, the capacity we have to generate food. Granted we sell most of that overseas and make money off of it, but I think the architecture is there to actually do some remarkable things with food and food systems. We might not have it right. I think your point's a very very good one. Your question is a good one. You know, when we're taking some of our best soils out of commission by maybe converting them to urban, that's a problem we can't kind of walk back from. When we're thinking about how far something needs to travel between farm to plate, that's a problem. So, I think there are a lot of problems here, but we're in the position because we know food here in New Zealand, to do it really really well.

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- If I can just, if I could just add to that. I think, I talked earlier about win/wins that you can get from climate action for health and for equity and for a lot of other things. Certainly, food is one of those areas where if we can reduce our reliance on meat based products and think about the balance of our food production, we can reduce emissions, but also, really improve health outcomes by shifting to a more plant based diet. And also, moving to more locally based food production and I'm really interested in the idea of food sovereignty and the idea that we can, you know, get more self determination. We can become healthier. We can reduce our emissions from food transport and things as well as, you know, economic benefits, as well.

- California is one of the largest producers of agricultural products and foodstuffs of anywhere in the United States. There has been a huge rush to take the Central Valley and planting almonds and they're a huge consumer of water and as California is seeing extreme drought the last several years in Southern California is very vulnerable and there's this argument that if, you know, we're sending so much, using so much water for agriculture and sending so much water to Los Angeles, we're completely water dependent, imported water dependent city, but we're changing that. We're working on changing that. It's all part of it and the electricity that is used to move that water both to the farms and to the cities is enormous. I will say and it's something we got to think about and the methane that's produced off typically any animal protein based economy is enormous and we need to think about that and how we address it through consumer behaviour as well as by digestion and better ways to manage these places. The agriculture community in California in Central Valley has become one of the largest producers of solar PV electricity in our economy. They've had rapid growth. They see this as an opportunity to reduce their, hedge their future risk in terms of electricity costs as well as produce revenue.

- So I'm going to do an Australian, New Zealand thing to an American. I don't know if the American--

- I've got your back, Pat.

- But the Canadians, both in Vancouver and Toronto have urban farms. So, they look at that space and I'm sure it happens in the U.S. but I'm just being cheeky, but in Toronto where I was two weeks ago, the space that's not being used, the local government leases it out at a very small rate to the local community to farm. And so they have vegetable patches to grow herbs and vegetables and so on and so forth and in Vancouver where you see the big roads and anywhere that there's land, in Vancouver, there's these fantastic urban farms. And in Australia,

they are building herb patches when you've got a tree and they've put a box around it and there's herb patches and it's an edible garden. So, as you're walking down the street, you can grab whatever you want to grab out of the edible garden. So, I think there's some really funky and fun things you can do to bring urban gardens back into our cities.

- Can I build off of Romilly's fun. I mean, the whole food things, there's a couple of big things, which is back to what Matt started with in the beginning. We like humanity, don't we? Or we love humanity. I mean, it's an opportunity for us to do something that's really essential, whether talking energy or transport or food or whatever. It's to decentralise and really localise that system because it feels good and it happens to be more climate resilient and more low carbon. So, there's a whole suite of reasons we want to do that and it's partly related to fun as well.

- It's a question that's come in actually is what it was to Matt but I can open it up to you all. Why is local government more engaged than central government on climate change challenges and perhaps it is 'cuz you mentioned, but Matt do you have any view, Romilly?

- Well, it's really true. I mean, if you hear my former boss, the Mayor of Los Angeles, Eric Garcetti and a number of other mayors, cities are on the front lines of climate change. The impacts, whether it's sea level rise on your eastern seaboard, the Gulf Coast, and our lowest income neighbourhoods are most vulnerable in these communities. Extreme heat we have. That's one of our climate crises in California. We have hotter summers and longer fire seasons that build on that extreme drought. All these implications of climate change and cities in the front lines as these, the fires then lead to flooding and mudslides in our cities and near cities. So, that's why, you know. Cities feel it the most. Residents feel it the most and that's where also, innovation's happening and we're looking at this. Is there an emissions future for Los Angeles and we've got vertical take off and lift landing coming. Or in our case, what's been innovative is something that nobody saw, which are electric scooters. So, we've been inundated with birds and limes and I'm sure they're coming if they haven't come to Auckland yet, but they, people love them. They go up to 11 miles per hour. They have changed people's' behaviour. They are a really, something, but cities don't know what to do with them and so now, cities are catching up and this kind of innovation, so, we're all focused on autonomous future. Well, the game changer right now is these electric scooters, there are people riding about. So, people are doing without helmets and they're riding in the middle of the streets. They've got safety. They're leaving them everywhere on the sidewalks. Yes, people love them but they're also a challenge. So, I think cities are where these innovations are happening, whether they're intentional or not.

- I think--

- I'll just see if, sorry, I'll just see if there's any more questions. If you've got any more questions from the floor, but I'll take, sorry, carry on. Danusia--

- I was just going to say if you think about it, there's a disconnect between us as citizens with our federal politicians. Like, there really is and the chance of any of us walking into the door quickly with a federal politician is low. But there's a, we're so close to our local government because our councillors, we've got access to them and it really is about access and I think which is why cities are leading all over the globe is because they're the ones that are being affected, communicating so closely with the individuals and the citizens. Whereas when you get up to state government for us and federal government, yeah, there is a disconnect.

- I wonder whether we need different things from our local governments and our national governments in the same space, so a national issue is somebody's real challenge and real problem. It's not a hypothetical discussion on something they need to do something about. It's something they live every day. So, their engagement across our different sectors of government moving in the same direction and looking at who can effectively make the changes that are needed.

- I was just going to add quickly that it's more of a call to action to those in the room. Right now, you can actually have your say on the Zero-carbon bill. You can go and say what you want for the government to do in terms of its ambition around zero carbon for the nation. And at the same time, you can actually get involved with us as we develop our plan for what Auckland should look like. So, it's really all hands on deck in this room. I like that commitment from almost everybody in the room to be able to do that with us.

- Alright, great. We've got a question over here.

- I've got family in Australia and I find in the Gold Coast, they spend so much more time inside with the air conditioning. Now I love Auckland and I think we're moving to the ideal climate. We're the real Goldilocks place. Not too hot and not too cold. And you can be outside in balmy weather all the way from late October, November all the way through to May. So, in fact, I'm probably using less electricity and things because I'm not having to use the heater at the same degree during the winter and because it's so beautiful during the summer, I'm not having to need the air conditioning. So, it's not always the argument, if you're looking at the whole world,

there is an issue but in any particular place, there are in fact, may be benefits. We've always got to be a bit careful with the message that it's all doom and gloom because some areas are actually going to benefit from it, even in regards to farming and things like that, as well.

- I think it's a good point but the uncertainty it throws up is a disbenefit and so, you know, there are four specific storms that hit us this year, in the last six months that we were pretty surprised about. You know, one in a hundred year events. And so yes, there are some great benefits of a climate that we all feel more comfortable in but we can't predict this stuff very well anymore and that's going to be a challenge to our businesses and our communities.

- Got a question over here in the middle.

- Thanks very much for your great comments. I'm Lindsey Wood. I run a company called Resilience Limited. I'd like to pick up on John's comment. I'm sorry, Rhys's comment, about us not setting the bar high enough and I think there are a lot of areas we can think outside the square where we're just too scared to tinker with our lifestyle. For example, I like the suggestion about the carbon credits, before. I think we need to give more thought to that. But Vancouver, I understand, has encouraged, for example, businesses to move to a four day week. Suddenly, you're only transporting 80% of the time and then you're also freeing up the traffic on other days. When the schools times are either holiday time or school hours shift a bit, we wind up with suddenly a great drop in transport congestion. I'd be really interested to know the comments of the panel on the potential of those and whether they're being explored or not.

- I really like the idea of thinking outside the school year and I'm going to take this in a perhaps different direction than you might have been expecting. But, I mean, I think one of the things that we are absolutely not doing enough of is valuing indigenous knowledge and ways of engaging with the environment in this space. I think of climate change as essentially the inevitable conclusion of a sort of western style civilization that's about exploiting the earth's resource as a commodity and dumping the waste. And so, I think that, you know, we have Maori culture here.

We have a culture that's all about relationships with the natural environment. About a very different way of thinking in this space. It does remind me of, I was in COP21 in Morocco a couple of years ago and seeing the difference between what was happening in the formal negotiations versus what was happening in the indigenous peoples' forum. If you could have switched those rooms, we'd have probably solved the climate crisis tomorrow. So, it's about

really decolonizing and I think, you know, if you're not an advocate for indigenous rights or decolonization, then you're not a climate advocate.

- Do you have reconciliation-- Do you have reconciliation action plans here? So we work with Reconciliation Australia and we have to have a, well we don't have to but it's voluntary, but we all have reconciliation action plans, so it's indigenous supply chain. How we're going to employ indigenous. How we're going to, for us, as the Grand Voting Council, we have to talk about it in our sector. So, what are we going to use to think about indigenous thinking into the design and construction of our buildings and cities. And in Australia, it's really really big. If you don't have a reconciliation action plan, that's called a wrap. It's like, well, where are you going? What are you doing?

- So, I think, I'd tighten that comment and bring it into the business world. Diversity and inclusion. There's not point in having five people around the table discussing something who actually will have the same perspective. That's not a discussion. It's a reiteration of the ideas around the table. So, having a focus and a clear plan on how you're going to bring different perspectives into the room and that's something that we have been focusing on for the last year and it's a challenge 'cuz it's really easy to bring people into your community that have similar ideas to yours. So, how do you critically challenge yourself. How do you hear new ideas. Every business can apply that thinking now. There's nothing else that needs to be done. And your conversation around Vancouver, my experience often is if you stand back, instead of trying to solve the problem, the problem is traffic. Think about what really matters here. Why am I even having a conversation about this? Why does it matter that we're all going in to work at the same time and causing these traffic jams? And then the conversation shifts. It also becomes a really accessible conversation and a human conversation. 'Cuz you don't have to be an expert in traffic flows and timing of lights signals to work out what matters. You need to be a human who wants to be with other humans doing some things and also likes to live a particular way. So, that for me, when we think about what we can do as private citizens and our organisations when we go to work and challenge each other about what is, what we can do better. Come at it from what really matters here. Why am I engaged in this? And go and find opinions that, you know, ruffle your feathers or make you think differently. Give you pause for thought.

- It's a lovely way to finish it. Thank you very much, the panel. We've just sneaked over our time limit, but thank you very much to Romilly Madew, Danisha, Danusia, sorry, Wypych. Got that right, hopefully. Dr. Rhys Jones and John Meadow and of course, Matt Peterson. But I'd like to

ask Andrew Eagles, CEO of the New Zealand Green Building Council to come up for a vote of thanks. Yes. I haven't seen it arrive.

- Baby girl!

- Oh! I was too busy. I didn't check my phone. A baby girl, very good.

- Well, nobody stole my thunder there. Thank you. There I was sitting in this chair thinking I might get to say it. I might get to say it. Hey, no no, that's fine. Isn't it wonderful?

And you know, reflecting just on that, let's see if he can segway into this, don't we want a bit of society for our children and our grandchildren and one other afflictions I've got from this really brilliant panel and brilliant Councillor Darby and also, great management by Corin Dan. I thought this evening was, it's simple to say, oh it's climate and that's a challenge for us, right. And there's costs, so we got costs. Costs, that feels really bad. When I listen to these people, what I hear is, hey, active transport. I hear healthier homes. I hear more connectivity with people. I hear dealing with inequality and I think that if we can keep up with that, we can do things that are really really impossible.

So, I wanted to say thank you to the panel. I've been asked to just reflect a little bit. Councillor Darby, huge respect for all of your work. Let's be bold. I loved it. And great work. I think we need, it's a funny thing, isn't it. Because we're asked to comment and I get asked to comment on how we're doing. We want to say, you know, it's good. Green bond is good. This guy, this guy Pathway is great and the work on transport is good. It is good. Maybe it's five or 10 percent of what we need to do, but we need to still celebrate that.

Matt, trust. Audacious goals. And also, you know, what do we have, 20 Mayors, And then someone came along and it was about hopeless. What happened? 460 Mayors. Come on! You know, let's keep pushing.

Rhys, we need to think about inequality. You know and I think this is so valid. The Productivity Commission has said that to get to where we need to, carbon price per tonne of carbon needs to go to \$250.00 per tonne. So, that's going to hit energy. That's going to hit food prices. It's going to hit our bills. So, we really do need to think

And I love Matt's, we've got this brilliant thing where Rhys raises an issue, 20 minutes later, we get from Matt, oh by the way, 25% of our carbon tariffs went to help those in lower socioeconomic groups. So, there's a potential in all of this. And an audience member, how about carbon rationing. Wow, look at that. 'Cuz then actually, the carbon that someone in a lower socioeconomic group doesn't spend has a value. The thing I get excited by is actually there's a potential to build a far better Aotearoa through this challenge and I think that's interesting.

Danusia, I love, using our school set to adapt to the change in climate and this isn't a spend, it's an investment when we meet this challenge, these changes. And John, a huge shout out to your team for the analysis a hundred years ahead. I mean what foresight. We need that for the Prime Minister's grandchildren.

Romilly, you know, the Australians, they come over here. She said, let's use our voice to drive change and I think that's a challenge for all of us for actions with supermarkets, you know. And it's true. My dad, he's a raving right winger and he said, I'm not sure about this climate change thing, Andrew. I said, thanks dad, that's really good. Dad, you know that's what I do. And he, but you got to listen. So, I was sitting there watching TV. People say ban plastic bags and he said, yup, that's kind of good. But why don't people call on supermarkets to stop using them. Well, there's a truth there isn't it. We need to say to our supermarkets, as well. We need to drive everything.

And I really liked Matt talking about better homes and buildings and that type of thing.

So, look, I just want to thank everyone involved and I've got an exercise for you. You've got some key, you've got homework. So, you're not getting away. So, first of all, kia ora Corin Dann. You know I just, we had a conference yesterday and it was huge and Joe Duggan just rocked it, but not everything goes really smoothly and Corin was just so smooth through all of that, so we really appreciate your stewardship tonight.

Thank you to Matt Peterson for his keynote and also your son coming with you. I really appreciate the support there.

What a brilliant panel. I think I'm just really honoured to be on stage with all of you.

Thank you to Councillor Darby. Continue your good fight. Thank you to all of you and those who are online watching. I hope that's been of use. And you're now still watching us despite seeing pictures of the Prime Minister's baby.

Thank you to Auckland Conversations. We've got a long way to go, but you know, our council is starting this conversation and it's really, there's something to be said for that.

The next Auckland Conversation event will take place on the second of August. This event will be in partnership with Auckland Transport where we discuss healthy streets for Auckland.

Now, your challenge. I would ask you to stand up.  
We're doing a double act Matt.

Okay, so there's action we can take. We heard about it. We can lobby. We can call the Zero-carbon, we can push for the Zero-carbon Act. We can support active transport. We can, if you work in a building, you can ask about Neighbours or Green Star. But here's something you can do to connect a little bit as well. I fundamentally believe that this is a huge challenge, but aren't we lucky, aren't we bloody lucky to have a challenge that's worth it? To work towards this for a better society for all of our people and children.

So, I'll ask you to raise your right hand.  
First of all, yell yes if you're inspired tonight.

- [Audience] Yes!

- Yell louder!

- [Audience] Yes!

- Okay, now I want you to turn to the person next to you, okay.  
I want you to say, you, too. You've got someone who have, Okay.  
Has everybody got somebody?  
I want you to high five and say now let's get this done!  
Kiora everyone, thanks so much. Safe travels, have a good evening.