

Apple Box Talks – SPF Panel Conversation

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[Theme Song]

CB: IATSE 891 presents Apple Box Talks

HB: The podcast where we get to talk to the very best in entertainment, the artists and technicians of IATSE 891.

CB: From prep to post and everything in between, we create worlds on screens of all sizes.

HB: Hello and welcome to this special edition of Apple Box Talks in partnership with Sustainable Production Forum 2024. I'm your host, Hillary Bergshoeff, and today we're talking about how workforce development and collaboration can help us decrease our diesel consumption on set. For anyone working in motion picture, exposure to diesel is part of our everyday working life. Powering everything from lights and catering to special effects rigs and transport trucks, filming has always been driven by diesel. I'm joined here today by three amazing people who are actually working very hard to change how we do things here in our industry.

Katharine Pavoni is the Deputy Director of the Provincial Film Commission, Mary Jo Biernes is the Director of Studios for MBS Equipment Canada, and Jennifer McNeil is an Assistant Business Representative here at IATSE Local 891. Welcome to the Apple Box.

JM: Hello

MB: Thanks for having us.

KP: Thank you.

HB: So we're going to dive right in. We've got a lot to talk about with a very short amount of time. And today we're going to be really focusing on what it means to collaborate, to bring change through collaboration, because we can't all do all the things. So we're going to start with you, Katharine, and your work at the Film Commission specifically around the Clean Energy Committee. Can you tell us a bit more about that?

KP: Thanks, Hillary. So, the Clean Energy Committee was born out of a need to essentially bring industry together to talk about one common goal, which was to reduce our carbon footprint. So we knew that people were working on it in various ways. You know, people were pushing to have more tie-in locations, people were talking about using batteries, people were talking about incentives, all things related to clean energy. And the committee was a way to bring all of those people together to sort of address the ongoing challenges related to not using diesel. And so the group was initially comprised of all sorts of industry folk who could contribute to the conversation, including working gaffers and genny-ops and people who worked within the municipalities or within sustainability as a whole. and it essentially was the place where we started to address each challenge with something that would contribute. So, the toolkits, mapping locations where tie-ins were available via our clean energy grid map, etc. etc. And so essentially it was a working group to address the challenges that were across industry and then find viable solutions for those problems.

HB: So you've talked about how you've brought together people from different groups in both Mary Jo and Jennifer, you represent groups of people who then sit on that committee, is that correct?

JM: It is, yes. I represent IATSE 891 and I also co-chair the Clean Energy Committee with Creative BC.

MB: And I represent MBS Equipment Canada, and I previously was on the committee as a location manager, so I've worn a few hats at that table.

HB: All right, So when you come into that room and you're looking to solve those kinds of problems, let's wind the clock back a little bit to the beginning of that committee. And we talked a little bit about tie -ins and battery power. So I'm gonna throw it over to Mary Jo. Can you tell us a little bit about what it means to be a vendor in that room? –

MB: Yeah, thanks, Hillary. MBS was an early innovator in developing battery technology specific to the film industry. and our particularly proud contribution is called the UPS Battery Generator, and the idea for that unit was initially sketched out on the back of a napkin by Rich and Mitch, our tech support gurus over at MBS, who both happened to be IATSE 891 members, specifically Rich Holden and Kevin Mitchell. And they were given the space and time to develop that battery technology and eventually to bring the UPS battery to fruition. So on the Clean Energy Committee, a lot of what I talk about is how we can incorporate the various battery technologies into everyday use onset and how they compare with the grid tie -ins and all of the other opportunities for replacing diesel generators with cleaner sources.

HB: So once we have the technology in place, then it comes to the training piece. So, Jennifer, can you speak to us a little bit more about how that's happened over the last three years?

JM: Absolutely, yeah. When we have the supply of this inventory, we want to make sure that the demand matches that and that we are using this amazing technology that's been made available to us. And so, an aspect of that is making sure that people are aware it's there and making sure they know how to use it. And as with any new thing, often we can be intimidated by the unknown, having questions, not knowing the answers necessarily. And so we looked at opportunities to bring all these different groups of people together, our crew who are working on set, our vendors who are creating and supplying this technology, and making sure that our crew have access to time with the experts who are making this technology to say, well, what if this happens? What if that happens? In a safe environment where they're not working on set, they don't have the stakes of working in their working environment, where if something goes wrong, it's a really big problem. So starting off with, you know, being able to myth bust and ask questions and then get hands on time with this technology, that's really an important aspect that you spend time with it and you see how it works ahead of time and you just have the opportunity to learn as much as you can about it.

HB: So, Katharine, you were part of the first clean energy workshop that was held here at 1622 in Burnaby. Can you talk us through a little bit about how that all came together?

KP: Sure, I mean, there was a lot of partners in that first clean energy battery workshop that made it happen, you know, where there's a will, there's a way. And the people came to the table, so essentially, we just decided on the format first of all that we were going to have some learning opportunities to sort of a classroom style opportunity to learn from a subject matter expert and that being people who would actually utilize the technology on set, because no one's going to believe someone who's never used it in the situation it's intended for and then we also brought in the equipment thanks to MBSE to actually use the technology like Jennifer spoke to hands on plug it in turn it on hear it run that was a big aspect of it because people don't believe how quiet these machines are and that's a real aha moment especially for people like location managers who are like "oh wow I could park this right outside someone's house and they can't hear it, awesome!" and then a panel in the afternoon that's really where people got to ask those questions to miss us their own preconceptions around the use of them. So is it gonna run out? Am I gonna look silly if I don't have enough power for what's being asked for me on the day? And that's where we were able to really work it out, including questions around power management, planning for the use of it, which is a really important aspect that's important to learn, because if you're not prepared, you might not be able to pull it off successfully.

HB: So Jennifer, How have these been received over the last couple of years?

JM: Super super positively and we've really been able to grow them as well. We started off with a much smaller format to test the waters and try and get some folks to the door and have really been able to expand based off of feedback and what people want to learn more about. And overwhelmingly, people have really appreciated

the opportunity to come together with colleagues that they may not normally interact with both on You know, where my colleagues and I work behind the scenes a bit. So bringing everyone to that table and with all of that lived experience and that professional experience is really valuable. The opportunity for crew to talk specifically when you're looking at location managers and production managers. There's been a lot of positive feedback about having the opportunity to learn about the technical side of things that, you know, that is not necessarily something that folks in that role will encounter on a daily basis. And when you're on a set, you aren't necessarily going to be able to stop your Genny-Op and say, "Hey, can you just tell me what you're doing right now and why it's working?" And so this opportunity to then see those same folks that you'll see on set and say, "okay, perfect. I have you as a captive audience. Now, why does this work? Why does this make sense? How can I advocate for this on the project I'm on right now" has just been overwhelmingly valuable. It's an education opportunity, but it's also a community opportunity.

HB: So Mary Jo, I know you're here speaking from the vendor point of view, but you also come to us with a location's background. So can you talk us through outside of just getting less diesel out there? What are some of the other pros to using batteries when you're out there filming?

MB: They're innumerable. One of the things I'd like to touch on is just what Jennifer was talking about with the training seminars. Those seminars have been so important among other things to break down the silos between departments on set and to really start that cross communication between location managers, production managers, and the electric departments primarily, and to make sure that they're sharing information and sharing best practices. With the early adoption of the UPS batteries on set when those first rolled out I was still working as a location manager and I found it was really important to encourage our electricians to try out the batteries in lower stakes environments rather than trying to start by powering your main lighting for set using an unknown technology. So, we rolled them out trying to power catering or to power a line of work trucks so that everybody could get comfortable with them and see how they how they worked and then as a location manager I was really excited about all of the applications that would make my life easier like Katharine mentioned before. They're so quiet So you can use them in at sensitive locations where you're concerned about disturbing the neighbors, you can use them in sensitive environments where like a park for example, where they're concerned about a diesel spill when somebody is refilling a diesel genny. So they allow location managers to have a lot more wiggle room and a lot more opportunity to pursue locations that they may not have been able to propose.

HB: So Katharine, in your role at the Provincial Film Commission then, we've talked about how well received these advances have been on set with the people working with this equipment, what's the reception being like with our municipal and provincial partners?

KP: From a film commission perspective, ultimately our goal is to keep our industry sustainable as a whole. So that's not just environmentally sustainable, but sustainable in terms of making sure that our communities are film friendly and that they look to our industry as someone who's contributing towards a greater good. And so things like training our professionals to work with equipment that lowers the impact on communities is huge, right? And even at a provincial level, when they see us doing work like that, it's very important and impactful. It just demonstrates forward thinking, innovation, collaboration, all the things that people look to for a successful industry and allows us to continue to be one of those sectors that is looking towards the future.

HB: Absolutely. Even broader than that, I think we've heard it tossed around recently, especially with the upcoming elections, that if you're in BC, you're part of the film industry. We're such an integral part of the fabric of what BC is from an industry point of view. Mary Jo, can you talk to us a little bit about the equipment? Because from my understanding, a lot of it's actually also made here in BC.

MB: Yeah, that's correct. I mentioned before Our UPS unit, which stands for Urban Power Source, by the way, and it is a large battery system that would replace a full -size diesel generator on set. Those are made by a company called RIC based in Burnaby, British Columbia, who assisted with the design and manufacture of our UPS battery systems. And then we have other units, smaller batteries in varying sizes that are supplied by Valid manufacturing and they're based in Salmon Arm, British Columbia. And then there's an additional

company, Voltstack, that is also based in Burnaby, where they were an industry innovator and leader in bringing about battery technology on set. –

HB: So it's another example of how every part of what we're doing actually then spills out and effects in really positive ways other industries here in BC.

HB: So Jennifer, we've had four clean energy workshops so far and I know that you're working together with the committee to plan more for the future. What would you say to someone who's hesitant about giving that time to come?

JM: I would say, come on down. Honestly, just come for the morning, check it out. Bring your questions, bring your skepticism and that's why we're doing these. We would love to be able to answer those questions you have so we can, you know, meet you where you're at and walk forward with you and try to increase that momentum.

HB: So to take a step back also, the Clean Energy Committee, all of these different training opportunities, they're part of a fairly substantial toolkit provided by Creative BC and the Provincial Film Commission under the umbrella of Reel Green. Katharine, can you tell us a little bit about that?

KP: Absolutely. I mean, we've referenced it before, but it sort of takes an army, right? It's not just up to the electric department to make these kinds of calls or changes. And so part of the toolkit that we offer on ReelGreen.ca related to clean energy has buzzwords so that people can understand terminology related to clean energy. They can use them to talk to stakeholders, to locations, to manufacturers, to equipment suppliers, whatever the piece might be. We also have sort of ways to get involved, how to encourage your locations teams to consider the use of clean energy, also access to the map that I mentioned previously where we can log generator use that helps us determine hotspots that are possible opportunities for tie-ins to the grid. And overarchingly, it just has information that people need to know about making clean choices and then other access to different toolkits for other departments outside of the electrics.

HB: So you bring up a really important point I think with the maps that you're referring to. We all know the anecdotal stories about how positive the experience with batteries is but we know that there are always going to be critiques that come up about data. So how each of you who ever wants to answer this one, how are we gathering the data about actually what difference this is making?

KP: To answer your question, Hillary, I think one of the most impactful pieces of data that we're collecting is how many workers have been trained to use the tech, right? Those numbers are really important. They demonstrate our commitment as a film industry in this province to cleaner tech. And that also helps with supply and demand, if every single worker here knows how to use a battery, then they won't be on the shelves, which means we buy more and that business expands. It's a wonderful thing to look to, and the numbers have been really great so far, as Jennifer said, really great feedback and commitment to actually attending these workshops. With regards to the map specifically, the data that we're collecting really is about finding those base points like where are we constantly dropping our base camps and how do we work with either a municipality or a location owner to provide the power that's needed to be there. Should we not have access to a battery or we need to look for an alternate for tying into the grid and then the clean energy grid access map is something that both electrics and location managers should know about because it has actual data points on who to call to access clean tie-ins, how much power is available, what the actual like amperages, access points, all sorts of information that makes it really easy if you're being asked to tie-in last minute because they won't give a permit for a genny. It's all right there. So that's a really nice piece of information. It also shows how many we have across the province, and that is another great baseline on where we're at as an industry, and we hope to continue to grow it, and then we can look at it in the future and say pretty sure that other jurisdictions don't have 40-something odd tie-in locations, and we do.

HB: So, Mary Jo, from a vendor point of view, in knowing that we've been training, we've trained more than 180 people through these clean energy workshops. Are the batteries going off the shelves?

MB: I do not work directly in the lighting and grip department, and I'm just going to say that off the top, but as I understand it, anecdotally, we are very, very frequently sold out of the UPS unit, certainly, and of the smaller batteries that we procure from valid manufacturing. We have a difficult time keeping them in stock, and we share equipment back and forth between Vancouver and Toronto, and in some of our management meetings there's often discussions about who gets the batteries as needed. So as we train more people and as we bring more gaffers and genny-ops and line producers and production managers into the fold and as they understand the value of it, the demand certainly has increased.

HB: And I think the other thing that people are worried about often is the financial investment that comes with things like this, and it's probably fair to say MBS took a bit of a gamble to invest upfront in this level of sustainable technology. Do you want to speak to that a little bit?

MB: Certainly, it was a large investment off the top to invest in those UPS units and then later on in the smaller units. And I think it took a lot of courage to be a leader. Other industry partners have certainly followed suit and it's great to see more and more versions of the batteries coming online and them being adopted more universally in that space and to prioritize sustainability.

HB: Yeah, it definitely takes some courage to have that level of financial investment. So for a production that is in its planning stage now, getting ready to film here in BC, often a concern around implementing something new like this is, what are we going to say about the budget? What's this going to do to the way that we normally do things? Can you speak to that a little bit for us?

MB: Sure. Normally, the apples to apples comparison, it is cheaper to rent a standard diesel generator than it is to rent a large battery, obviously because the diesel technology is older and it's less expensive, it's less of a cash outlay for the company to purchase them. However, a diesel generator burns roughly \$500 of diesel a day and pumps roughly 1 ton of carbon into the atmosphere, but we won't talk about that. So about \$500 of diesel a day, when you then compare that to the cost of the battery generator and you're not putting any diesel into it. At the end of the week, it does come out to being about the equivalent. So that's a message that was a little bit of a challenge to get out there, because the people who budget for the generator are not the same people who budget for the diesel, nor are they the same people who budget for a grid tie -in. And so that was an interesting myth to bust and that we've continuously talked about during the Clean Power seminars is to really hear from those different departments and how to really calculate the true cost of it. And the DGC, by the way, has a lovely calculator on their website on DGC Green that you can use to calculate the true cost at the end of the day.

HB: So Jennifer, that's actually probably one of the biggest changes we've seen in how the clean energy workshops have come together. Our first one was primarily 891 technicians really doing a lot of tech talk, hands on the gear. What are they looking like now? How are we addressing those knowledge gaps?

JM: Absolutely. That did start off very focused on the tech side of things and the kind of resounding feedback we heard off of that first workshop was this was amazing. This was great, why are there not more people from the other unions in the room so that we can all be having this conversation together? And when we thought about that and how to address that, we have since added an afternoon panel session where we really look at the logistics side. We talk about the budget. We talk about municipal incentives that are available from our partners in the lower mainland. We talk about these new tools such as the DGC Green's Clean Energy Consumption Calculator, which is available on their website that Mary Jo just referenced. It's a way of taking a hypothetical theoretical number then discussion and sitting down and actually looking at the numbers and how they balance out for comparison. So taking the feedback and bringing more of those folks, inviting everyone into that conversation has been really beneficial. We've had folks from 669 who have joined us. We've had lots of folks from the DGC, from locations, production managers. We've had regional film commissioners who have come over from the interior and from the island. People are really interested in having this conversation and understanding from their specific perspective and the work that they do and the value they add to their part of the industry, how they can be supporting and advocating for sustainability from their position. And all of us working together, I mean, that's the only way that we can really do this is everyone taking that small piece that they have some control over and they have some say in and using that to shape the conversation.

HB: Absolutely. And the other partner that's worked with us through this is Reel Green, who's helped us pay for a lot of these workshops. Katharine, you have more of a kind of bird's-eye view now from the Film Commission point of view of how Reel Green comes together, because I don't think people always understand how interconnected we all actually really are.

KP: It's a really good point, Hillary. So the Reel Green program, its home is the Provincial Film Commission, but it's actually made up of partners, so funders, who contribute financially to the program, and that includes everything from our US studio stakeholders to our equipment vendor companies and anyone essentially in the lower mainland who's interested in advancing sustainability for our industry. And so again it goes back to that collaboration piece. If everyone wasn't contributing financially, we wouldn't be able to offer this training therefore it wouldn't be free for people to attend and so it's a win-win when we have sort of an invested group of people at the table.

HB: So again, this might be for you Catherine, but if anyone else wants to chip in how are we doing? next to our competing markets as it comes to bringing in clean energy?

KP: I like to see us less as competitors and more as colleagues. You know sustainability, there's no IP stamp on what we do here. We're happy to share. There's actually a national Reel Green committee where the different programs from across Canada participate. But what we do here, anecdotally, from our foreign service clients is that BC is ahead. We've always been ahead, and we work really hard to maintain that because it can be a competitive advantage when somebody is looking to come somewhere. It's really important for us to continue to highlight that to be a good corporate citizen, they should be filming in a jurisdiction that has these types of technologies and these trained crews available. It makes them look good, it makes us look good, and it makes the crew feel good at the end of the day that they're making the right choice.

JM: Interestingly, for the Clean Power workshops, we've had folks come up from Los Angeles. They've heard about the training that we're doing. They're very interested in it, and we've seen it emulated in other jurisdictions because there is a recognition that this training and having trained crew and educated crew is incredibly important in the equation of sustainability. And so as Katharine said, I mean, we are always happy to share our information. We, I think, have all had conversations with our colleagues in other jurisdictions about the work we're doing and how we can support with challenges we've already faced and overcome so that people don't have to reinvent the wheel. The collaboration exists here in BC but it also exists globally with our partners and I think that's a really important aspect of how we approach sustainability. We're not precious with it because at the end of the day this is important for everyone everywhere, not just here.

KP: Great and I'll just add to that also that BC is in a really unique position because our grid power is clean. So other jurisdictions, even if they're working off-grid, even to charge a battery, they're not necessarily charging it with clean power. And we are here in British Columbia.

MB: I think that constantly upping the ante on sustainability and on developing technology, whether it's people that own the Starwagons that actors use and the trucks and all of the components that go into a base camp or into a set, everybody's constantly sort of competing for that little competitive advantage in making their product a little bit more sustainable. And if we keep that going, people will continue to innovate and come up with really creative and clever solutions and start to really look at their power consumption overall. And then that makes the batteries even more valuable as we think about ways to use less and do more.

JM: It's like a cultural shift within our industry that it's not just a box we're checking, it's people are actively you know buying into this and really caring about it and that changes the way you think about how you're innovating.

MB: Exactly, it's not just changing the technology but it's changing processes, it's changing how people think. It's changing, like an example would be the second ED making a call sheet. And if they're saying, I need the circus hot or the base camp hot at 5:15 am, do they need the whole thing? Or do they just need that trailer? And how does that change the Genny Op's decisions and how to power that, that fleet of trucks, if you don't need to turn them all on at the same time. And making those little changes and changing how we think about it can go a long way. And each person on set has an opportunity to change a couple of little things.

HB: I think you've hit on something really important there that as much as it's about learning skills, you need to actually change your whole way of thinking. We need to adopt a different shift in culture and the way that we do our work. And something that's come up in SPF is the nature of how temporary our jobs can be when we're actually on set or part of a production. What would you say to someone who is struggling with looking at a long term, that generational thinking of how our actions are impacting the future from a sustainability lens, but when they're just showing up to work trying to get through a 14 hour day?

KP: So something I think that we should all keep in mind as a collective is that we need to adapt and change in order to continue to be the best at what we do. There's no such thing as I've learned everything and I'm going to stay this way and I'm going to always be employed and I'm going to always be in demand. These are skills that are being offered free of charge that will just make you a better technician and human. So I think it's really important that people embrace that when possible. Obviously we know everyone's busy, we know we can't necessarily come every day, people have kids and dogs and hobbies that they maybe want to do instead, but I think that sort of time investment really pays off in the long run in terms of building yourself up as a technician. I think something we also need to collectively think about is there was a comment made at the Sustainable Production Forum, which is a conference that happens every year that's open to all industry members was by a gentleman who works with the Zero Emissions Innovation Center who said that a lot of other sectors are way ahead of what we're doing here in terms of training people for the shift to clean tech. So we need to keep up with that and think about it. What's coming next and how do we be ahead of that change and be prepared.

JM: I think that's such an interesting thing you bring up, Katharine, with this idea of lifelong learning. There's no one solution to anything in life. There's no one solution to sustainability. There's no one solution to clean power. And so, you know, the work we're doing right now is around what's available now, but I know us at this table, that's something that we're constantly thinking about is, what is the next technology that people are working on, that people are building up, that people want to approach our industry and see how they can work together. Those are conversations we're having bearing in mind the whole time. How can we look at what's possible and ensure that our folks are aware of it, they know how to use it, they kind of stay ahead of the curve.

MB: I would add to that that our industry by its very nature is incredibly dynamic and innovative. We work in constantly changing environments, constantly changing scenarios. And I think probably what attracted people to the industry was the constant change. And I would say even if you have already attended one of the original battery training seminars, come on back because I think what I notice is as gaffers and Genny-ops, and as people adopt the technology, they find other really interesting uses for them. They find other interesting ways to apply them. And I think that those training seminars are such a great forum for sharing best practices, for sharing cool ideas. And I think for everybody to bring to the table what they've learned out in the field.

HB: I think it's definitely one of the things that we've heard across almost every interview we've done for Apple Box Talks that something that draws people to this industry is creative problem solving, being able to excel at what you do, at something you love, and be part of constantly solving problems. And often in really bizarre, exciting, creative ways, And I think it's hopeful. So many people facing climate change anxiety, thinking about the impact of life today and what that means for future generations. And I think it's really great to be able to end on that hopeful note that we're all in that space of constantly looking for creative solutions. All right, so before we wrap up, we're always looking forward, always looking the next innovation that's going to take us to that next step, can you each share maybe something you're excited about?

MB: I'm excited about all the various technologies that might come about as a result of further study of hydrogen. I can't talk about anything in specific, but I know that there are a lot of really smart people working on developing technology where hydrogen can be applicable as a power source in the film industry, and I think it'll be a game changer when it happens.

JM: I am really excited about a product that if you were at SPF in person, you probably would have seen us. It is a product called Reboard. It is a paper material that is engineered to be very strong. It can support weight. And I think there's a really amazing opportunity to see us use that in the film industry. It is a more cleanly produced material recyclable. So I just, I'm very excited about what we're working on here at 891 with how we

can introduce that to our members and let them get a chance to play with it, throw it at a wall, see how strong it is, throw some darts at it, maybe, and just see all the opportunities that are available with that and looking at a new side for me of sustainability. This is not something I've worked a lot with before. It's been predominantly clean energy. So, switching that focus and opening us up to other departments is a very exciting opportunity.

KP: From the Film Commission perspective, I'm really excited because we've just brought on a brand new Reel Green lead. His name is Justin Barnes. We've started a refresh on our strategic plan for that. So we've got some really key focus, which includes outreach, showing up to productions and providing the information they need, hearing about challenges, trying to find solutions for them. And I am excited for the next Clean Energy workshop, which we will roll out before the end of the year, so stay tuned for dates on that. And I'm mostly excited about sort of the next chapter of our industry and seeing what we can accomplish if we can collaborate at the table for Real Green and at the Clean Energy Committee.

HB: So thank you for all three of you for giving a time today for being part of this. We're very grateful to have been part of Sustainable Production Forum this year and we look forward to learning more as we continue. And thanks for your time.

MB: Thanks for having me.

KP: Thank you.

JM: Thanks, Hillary.

HB: And that's a wrap for another episode of Apple Box Talks.

CB: For more episodes and to find your fit in the film and TV industry, check out www.ourwork.ca

(upbeat music)