

Webinar Panelists

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This Transcript

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Vickie Healey

Everyone I'm Vickie Healey with the National Renewable Energy Laboratory and I'd like to welcome you to today's webinar that is hosted by the Clean Energy Solution Center. We very fortunate today to have Dr. Robin King who will be joining us and will be discussing the Planning Financing Sustainable Low-carbon Urban Transportation and—oh, excuse me for Low-carbon Urban Mobility Planning.

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So, one real quick none of disclaimer before we begin the Clean Energy Solution Center does not endorse or recommend specific products or services. The information provided in this webinar today is will be featured in the Solutions Center's resource library as one of our many best practices resources that have been reviewed and selected by our technical experts—excuse me.

Before we begin I'm just going to go over a few housekeeping items for audio you have two options you can either listen to your computer or over your telephone. If you choose to listen through your computer we ask you to please select the "Mic and speakers," option on the audio pane on the right hand side of your screen. Then, if you do choose to listen through your telephone option there's a box on the right hand side that will display the telephone number and audio PIN that you should use when you're dialing in. Panelist we just ask that you please mute your audio device while you are not presenting. For our audience if you have technical difficulties this webinar you can contact there are two webinar's helpdesk at the number that is listed on the screen below or on the screen in front of you at (888) 259-3826 and the helpdesk will be happy to assist you.

So, a few others items if you have a question we ask that you use the questions pane or you can type in your question. If you're having any difficulty viewing the materials through the webinar portal you can find PDF copies of the presentation located at cleanenergysolutions.org/training. You can put this presentation and

follow along Dr. King presents her presentation. Also we want to let you know that audio recording and the presentations are posted to the Solution Center training page and the audio recording are actually be added within the next few days.

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For our agenda I'd just like to establish that we have a great agenda Dr. King is presenting on this very exciting topic of mobility patterns for low-carbon transportation—excuse me as you see, I'm stumbling over my words a little bit. For Dr. King presents her presentation I'm going to provide a short informative overview of the Clean Energy Solutions Center initiative and following presentations we'll have question and answer session where you be able to ask questions through the questions pane and then will wrap up with few closing remarks and that will be followed by a brief survey.

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So, this slide provides some background in terms of how the Solution Center was established. The Solution Center is an initiative of the Clean Energy Ministerial and that's supporting through a partnership with UN Energy it was launched in April 2011. It's primarily led by Australia, United States and other CEM country partners. So, outcomes of this very unique partnership includes supportive developing countries through enhancement of resources on policies that are related to energy access, no-cost expert policy assistance and also peer-to-peer learning and training tools such as the webinar that you are attending now.

The Solution Center we have four primary goals that serve as a clearinghouse of clean energy policy resources. We also serve the share policy best practices, data, analysis tools that are specific to clean energy policy and programs. The Solution Center we delivered dynamic services that able expert assistance, learning and peer-to-peer sharing of experiences. Lastly, we fostered dialogue on emerging policy issues and innovation occurring around the globe.

Our primarily audience are energy policy makers and analysts from government and technical organizations in countries around the world. But, we also strive to engage with the private sector, NGO's and also civil society. Right now I'd like to just go over our marquee service which is titled "Ask an expert," and what we provides through this expert policy assistance is a valuable sources offered and we have establish a broad team of over 30 experts of a variety of Clean Energy policies from around the globe who are available to provide this remote policy advice and analysis to countries at no-cost.

So, just for the example in the area of mobility patterns we are very pleased to have [Indiscernible][0:05:21] who is president and co-founder

of [Indiscernible][0:05:25] as our expert in this area. So, if you have need for policies assistance on renewable mobility patterns or any other Clean Energy Center we encourage you to use this very useful service. Again, I'd like to mention this assistance provided free of charge and to request this assistance you can submit your request by registering through our ask an expert feature which is located on cleanenergysolutions.org/expert and we also invite you to spread the word about the service to this in your network and also through your organizations.

A few ways you can become involved, we encourage you to explore take advantage of the solution center resources and services including the expert policy assistance I just mentioned. You can subscribe to our newsletter and also continue to participate on webinars such as the one year attending presently. Now I'd like to provide just a brief introduction for our very distinguish panelist Dr. Robin King who is the Director of Urban Development and Accessibility Program at EMBARQ and today she'll be examining the issues around development of clean transport systems and programs and will speak to possible solutions around these issues so with that—and with that further do I'd like to turn the webinar now over to Dr. King. Robin welcome.

Dr. Robin King

Thank you. Can you hear me?

Vickie Healey

Yes, we can.

Dr. Robin King

Okay, thank you.

Vickie Healey

Yes.

Dr. Robin King

So, what I'll do is first I'd like to say thank you for giving me the opportunity to speak here. I mean we talk about the process of developing urban mobility plan this is based on some work that I led that we did throughout the EMBARQ and WRI network with experts in Mexico, India, China and Brazil and that has resulted in a series of quick guide that will be published shortly by UN Habitat. This is a series of four I'm talking about them but the first one was actually on how to develop an urban mobility plan. The four brief specific given to the details there are three main things that I hope that you all remember throughout this.

One is that when we're talking about mobility we're really talking about moving people and not vehicles. This is really a shifted approach from the past and what you want to do with the plan is to have a process that helps triggered overall shifted attitude. So, that everybody realizes that mobility is really about people and connecting people with opportunities and not just moving cars around. Another issue to remember is the creating of urban mobility plan is that has a lot of term, flexible and dynamic process. It's really only successful when decision-making process includes the interest of ideally, all and certainly a very wide range of citizens and stakeholders. When the process in plan considers not just transportation

but all of the aspects of mobility and other parts of urban lives and especially land use.

So, we talk a lot about integrated land use in mobility planning. So, the idea of moving people and vehicles are big changed from the traditional view and this is a representation of service cycle when we talked about building roads and that leads to traffic congestion it promotes urban sprawl, car ownership and use because it's pattern for most car ownership and use and leads to more traffic which then leads to more roads and then you are in this endless cycle. We've seen as resulted both urbanization and increase roads much easy to access to personal vehicles and we've also seen that planning process it really has been skewed to favor motorization overall.

One of the questions that I'd like to ask from the beginning is is the quality of life, the quality of health, quality of safety that we have in the cities what we really want to be and we would like it to be something different. So, what we did in series and what we do in actual much of the work that we do at EMBARQ is to rethink what the goal of transportation infrastructure is and how can be done in low-carbon and more inclusive way. So, a lot of that is thinking about the interaction between transport and land use. So, we use sprawl as an irreversible consequence of existing planning process. If you continue to use the same kind of planning process if it remains irreversible but we want to do is thinking about how we can change that.

The "siloes" approach and very rigid zoning was created a very fractured urban fabric. If you can see this is an image of some of the new supposedly affordable home developments in Mexico. We've seen so much very cookie-cutter settlements that are typically far from the urban centers where the connections or social economic livelihood and the ability to easily move from the place of residents to place of work, or place of play, production, consumption, worship, recreation to everything. So, we want to do instead is talked about the simultaneous planning of land using transport so that they can help to build diverse, tight urban communities.

So, that you take full advantage of these cities and the citizens on these cities take full advantages transport infrastructure and a chance to in transport investment and a chance to help those cities. So, the framework that we generally talked about is one of avoid shifted improved we talked about avoiding the need for high-carbon transport in terms of the way that we organized our cities so that we don't need to drive every place we can walk, or we can bike to fulfill our daily needs. That we try to shift to lower carbon possibilities and we try to improve technologies to increase efficiency of—and we talked about each of this a little bit more—farther in the presentation.

We talked about planning, we talked about institutions and we talked about stakeholders. The stakeholders and the involvement of stakeholders from the very beginning not just to say, “Okay to a plan once it’s ready to be implemented tends to make the process more holistic.” But, in order to do the successfully it really requires committed institutional support and that means that this institution is also need to accommodate an evolving planning process. We know that this institution themselves often are not terribly evolutionary or it tend to get stock. So, we want to think about how you can use these stakeholders as part of the process to encourage more evolution and more participation and more holistic approach of thing.

What does it mean is that what we’re talking about—when we talked about an urban mobility plan is not just holistic projects and that what we’ve seen mobility is one of many goals and we want to talk about quality of life and how mobility can help us achieve that. So, this is simple way to think about the context of the urban mobility plan which is the UMP in middle. Some folks that work in the European context is generally called this sustainable urban mobility plan and the work has been done in the EU right now, I think the next version is actually can be just an urban mobility plan some people will label this a low-carbon urban mobility plan. But the idea sort of broadly is to look at the economic sustainability the social responsibility and environmental sustainability sort of all together. If you miss a piece of this you’re not going to have as sustainable of plan as we go through it.

So, what we did is we developed the series of four quick guides they should be published later this year and then review process now. We have a very broad peer review process with lots of people from around the world over the course of the last year and the four on how to develop an urban mobility plan, how to establish a metropolitan transit authority which is often needed to serve as part of this, how to establish an urban mobility compact and how to establish a multi-stakeholder forum for urban mobility as part of the participatory process.

What is an urban mobility plan? The World Business Council for Sustainable Development talks about the ability to meet the needs of society to move freely, gain access, communicate, trade and establish relationships without sacrificing other essential human or ecological values today or in the future. So, it’s something that is very based in the present and thinking about the future and what—that requires is really having a long-term vision for urban growth. We want to think about individual development plans that are out there and how they are can affect the other development plans in the other sectors.

So, that you can think about equity, you can think about affordability, sustainability, safety and comfort. There are wide ranges of officials that are involved and this differs dramatically from the city-to-city but typically a successful urban mobility plan will have this strong

involvement of stakeholder communities. But, you also really need in terms of the first among equals is a strong cooperation officials from different administrative departments of the city that's involve or we can in some cases.

So, we talked about in urban mobility plan being participation-led, sustainability-focused, cross-sectoral and review-based. So that we can involve people from—in entire process throughout and so we suggest a five-step process. Now are more complicated processes on this, I think the EU used some plan has a 12 and we covers some of the same structure but we bring them together. So, we have step one which is preparation conducting situational analysis, step two establishing vision, step three identifying objectives and goals, step four drafting of urban mobility plan itself in terms of the policies, the measures the resources and the responsibilities, and then five the implementation, monitoring, evaluation, revisions.

So, one of the things that really want to plan here is that I think many people when they're thinking about urban mobility plan and the way they are done in many places just looks at step four in terms of the plan itself without thinking about the preparatory work that use to be done and how it needs fit into a vision that you identify goals and objectives so that you know what you are aiming for in a plan. Then, that you evaluate and revise it over time and so what we do now is go through into this in a little bit more detail so in terms of conducting a situation analysis.

Here we talked the examining institutional issues with respect to availability, affordability, safety, and sustainability. So then in terms of the actual it just some of your goals that we got. We think about the investments, the equity, financing, coordination and the financial side. Then, talking about the outreach participation, and measuring impacts on the communication side and the monitoring and evaluation side of things. We look at existing policies and this is throughout defining as summarizing what those issues were existing policies, finance and then capacity building.

Capacity building ideally should be involved in the urban mobility plan process throughout the entire process so that you got folks and involve the public and the private sector and the civil society who cannot be knowledgeable participants in the process. So that there are really bad asymmetries of information throughout, but that requires it should really need as decision makers and they are not always open. That you have the alignments of planning and political priorities again, that can take a long, long time to get to. That they are needs to be a common understanding of what sustainable mobility actually is and that you need to explicitly address social exclusion so you can think about how you want to move forward and more exclusive way.

This requires that your factor in planning, implementing, maintenance and overhead costs in a realistic manner and this is impossible if you don't have this overlap between planning and political priorities. What is realistic and what is aspirational need to be acknowledge openly but it is—we can have some discussions about some different ways that it can be done and that's what some of the guide on how to establish an urban mobility compact it's been used in that compact process it's been used to help get civil society the government and the private sector sort of on the same page and moving the same directions that is moving again each other.

In terms of identifying stakeholders we talked about identifying the maximum possible stakeholders and understanding what their needs, ambitions and influence are to create a common platform for engagement of stakeholders and then to identify the disengaged somehow provide representation for them. The common platform for engagement of stakeholders is translate offering into the sharing basic information and making sure that there's more than one way of disseminating an information in many places that needs multiple languages it certainly needs multiple media and different timing of things and so we can talk about that [as well if you want too.

When thinking about stakeholders you wanted a distribution of all different socio-economic and geographical groups you want to know encourage—encourage self-organization that you likely the needs to assign roles so that folks are not fighting within the process because what you want to aim as representative but small and efficient group that comes together to make decisions that depend can go out to their other organizations to get sort of the buy-in, and agreement as well as to get additional ideas when folks are—especially when folks were stocked. Finally this area want to make sure that you got the relevant demographics and planning documents to build upon and you want to many of these in public not all of them will be able to be in public all the time.

But, you want to make sure that society is a whole field that you are advancing and doing something that isn't just based on somebody's learning. You want to be able to rate the quality of the infrastructure that exist now and then in analyzing things you kind of build an enough time to collect some data it's crucial. So, that often means origin distillation studies it may mean modal shares it may include sort of understanding where jobs are located, where houses are located and who exactly is using the different modes and what their possibilities are.

The next one is established division. This is typically sort of the more political face and one of the more political faces. There should be unified and shared vision because without that we will have competing visions and generally if you're competing visions you end up competing of overall kinds of things throughout the whole process it is often and master plan with land use guidelines you want to make sure that everything is fitting

together ideally have a stakeholder process, that's good. You want to engage and know what stakeholders want from beginning and not shirk away from the conflicts because you want to be able to solve the conflicts earlier rather than later and so you have to be aware of what they are.

The several case studies in the report one of them is the New York Metropolitan Area it is an interesting example because it doesn't just look at the city but there's a regional focus you got along high-growth nodes which is spread across the region. For a long time they're working toward and have achieved a coordinated transport, freight, and non-motorized transport facilities where you got the regional focus in local concerns that are addressed simultaneously. So, establishing vision can be a challenge but often times when a politician first comes into office so be a vision that helps carry her or him into the office and say you can really go upon that.

So, then you want to think about identifying objectives and goals. So, this is typically starts with review in existing infrastructure we talked about prioritizing public transport and non-motorized transport services so it can move the most people in the most low-carbon, right—and you want to share reliable data across departments within the city and well that sounds very simple and often is not. However, if you don't share reliable data across departments then each department will be working on their own little world or in their own little world and you often be fighting with each other instead of working together to achieve as single.

You want to think about land use and design this involved the GU special aspects you want to collect GIS data and analyze alternative growth scenarios. This can have inform responsible decision-making you want to encourage inclusive and open spaces that's called a physical and operational kind of concept. You want to make sure that whatever the plan is preserves heritage and cultural practices and doesn't just trample on some traditions that are very important to folks that often than can derail of process.

We talked about safety and security being very important. Safety audits especially for cyclists and I would say even more importantly pedestrians needs to be a key element of this often what we see is that the focus is so much on vehicles that the cyclists and pedestrians are left behind and not we see from the beginning when the data is collecting. So that the data show that pedestrians are invisible because the data collecting is all about cars and busses perhaps. But, vehicles certainly when they are moving and not necessarily the folks that feel unsafe even being close to where these vehicles are. We need to think about some complete streets, the streets for all genders and economic groups.

So we want to encourage typically an urban mobility plan, accessibility and equitable mobility so that we in fluidity of multi-modal transportation which of course thinking about integration. We want to address equity by planning well-distributed services and not again well-distributed means

geographically, socioeconomically and probably across different nodes and include the diversity of service-users by age, gender and special-needs. One of the easiest ways to do that is actually to aim at the most difficult and at least those with the most special-needs and if you can meet their needs then you are likely be able to meet the needs of as many others.

So, you want to focus on many of the cities that we're talking about—that we're working and I think many of you working are in rapidly developing countries and rapidly organizing places. So, there is an important to focus on the urban poor to try to really think about urban structure that minimizes the need for commuting but it has services that are affordable and that can connect things together and in easy way and a fluid way.

We want to talk about health and well-being because the real goal in all of this is better quality of life. People don't typically want mobility for the sake of mobility just to be able to go from place but there are might be some of that but generally you want to be able to move around so that you can achieve a better quality of life. We want to talk about curbing pollution and it could be air pollutions, sound, noise and biological pollution. We want to promote energy efficiency and promote public transportation. So that, those on the goals and objectives.

Then, we get through drafting of urban mobility plan itself. In here we're talking about means and strategies and then an outline of a timeline and—sorry, and milestones. So then, we talked about means and strategies and it was unmissed in this slide here. We're talking about planning instruments that in those could be whether the land use plan, or some of neighborhood plans or a transportation or sector or energy plan. The regulatory instruments it's like more of some standards, economic instruments like taxes and subsidies, information and organization instruments like public awareness campaigns and technical or technological instruments like fuel improvements [Indiscernible][0:28:46] emissions, progress and technological improvements all around.

On the timeline side we see a several mixture of very, very long-term of the 10 year operational some operative strategic plan but then shorter processes that go throughout. This is really with the idea that you probably have a two to three year term for a leader in the city and that you want to really start at very beginning of a political term. But, that you really need to review things a row at least every five years but ideally every two years.

Then, you can think about institutional structures and this can go from through projects, to steering committees but when you want to think about on what institutional arrangements are needed to implement the plan. Then, what kind of structures propose and that would include functions, powers, authority and financial elements as well. So, there can be separate some different groups and this is when potential set up it certainly is not the only set up. You can see where you got some of—executive committee

got a technical committee and then we got sort of more ground level folks that are interfacing with different specific communities on the ground.

The capacity building as I said earlier needs to be on included from the very beginning and included in every set and there are needs to be an awareness of the need for evaluation and improvement throughout. If the urban mobility plan is viewed as a document that is finished and just left on the shelves it would failed and you lose a lot of valuable and scarce resources for not achieving very much. So, you got—everybody needs to acknowledge but it can be improves and evaluated throughout.

The stakeholder feedback is a process. I think that many transport experts are very aware in this because they tend to think about through bid meetings or the public comes in just screens of the officials. The guideline that we did in pieces of this guide we talked about different participatory methods show the—but those are generally the most effective and certainly only one style of participation that is not—that often probably should not be the first one. That you should really think about some more interactions from beginning smaller groups, represented groups and that the big public meetings that a lot especially the older folks that have been involved in transport planning for a long time think of in something that probably should be something that you do only as a last resort.

You need to have the political will that's involved—and ideally you want the vision to survive the electoral cycles and I'm very aware that it is much easier to say than it is to achieve. One of the things that often happens is that a new administration that comes in wants to distance themselves from everything that happened in the past. So, I'm trying to include stakeholders in from the beginning and should create a vision of the people is something that helps increase of probability of the visions surviving electoral cycles.

Then, use to be a focus on urban poor because their reliance is strongest on public transportation that we got special attention being paid to their needs often they will not be included in their needs will be neglected by the plans. That is probably one of the big things that jumps out when you do evaluations of—in any evaluations that haven't done of some other urban mobility plan that have been attempted in different places is that this sector is often invisible and there often invisible in the master planning process and then the master plans. So, taking acknowledge that they are there and thinking about how incorporated into the mobility plans into the overall plans for the city is very, very important.

It needs to then ideas so early think about evaluating and revising a plan. So, we got to allow for changes to happen then it just should be in iterative process as the plan is implemented, gaps will reveal themselves. So, their needs to be process that is not too negative in terms of its tone that we are reviewing an unmet goal isn't necessarily a sign of failure but to say “Okay, when the thing is changed let's find the way to resolve that.” That

the implementation period should be consistent but open to amendment if needed throughout but the most important thing is that anything, any changes need to be transparent and in consultation with authorities and stakeholders. So that wraps up the prepared part of the presentation.

I want to make sure to leave a lot of time for questions and discussion because I think to that is likely to be more truthful for many of you who come with great experience and ideally also in cases to share. So, I look forward now to hear some questions of having some discussion.

Vickie Healey Great. Dr. King, thank you so much for that excellent presentations very informative and interesting and thank you so much. Before I go forward I just want to verify that you can hear me.

Dr. Robin King Yes, I can hear you.

Vickie Healey Okay, great and we do have a few questions that are incoming but I just want to remind our attendees, our audience that if you didn't have questions we invite you to submit those questions through the written format option on the questions pane from the right hand side of your screen. So, Dr. King the first question I have for you: is can you give us some example of an urban mobility plan that has been implemented and proven successful in the developing county?

Dr. Robin King Sure, I think that but some of depends on how you defined a developing country that some folks mostly talked about Singapore in the 80's when it was less rich, but I think probably a good case can be seen in case of [Indiscernible][0:36:11] Columbia that in 2006 had a master mobility plan that was aligned with their land use planed 2000 and it really viewed or tried to view transportation in line with land use and move the city towards in integrated public transport system. So, the terms [Indiscernible][0:36:33] bus traffic transit system was the key in piece of that but was also viewing that not just as the BRT alone but thinking about how that see things to the rest of the city to think about some housing plans around on that.

I would say it was viewed as quite successful for a while I think right now because of this change on politics and the concern about sort of "It's my plan it's not your plan," it's both has less in example right now. But, certainly the 2006 mobility plan was successful for quite a while. There are underway right now, I guess in the last five years in India there was a requirement under the JNNURM [Indiscernible][0:37:36] Urban Renewal Mission and National Urban Renewal Mission.

There was a requirement in order to ask response that a city have a comprehensive mobility plan and what—it was in those cases were not so much a good example but I would say in that case is nothing at all. But, in many cases were often have a bad example where the plans were just at least of projects and what really integrated but then really think about how

they all link together. So, that's an example of something maybe to be avoided.

I think right now in Brazil there is a similar requirement that—or for cities that want to access national funds under the [Indiscernible][0:38:22] which is through one of the enlarge funding mechanism for cities and infrastructure. They are required to have an urban mobility plan and it's still sort of—we'll see what happens with them. I imagine that we'll see a wide range just like I saw in India of some good plans and some just a list of projects. But, there are certainly other many cities that are trying to implement a process it's similar to what we talked about in this guide.

Vickie Healey Okay, thank you that's an excellent example and thank you for sharing that experience. Another questions is coming to you: is talked a little bit or a bit about the political complexities involved in establishing urban mobility plans sometimes but this question comes in and the question is participatory process is to look very difficult and don't they somehow slow down the process?

Dr. Robin King It's a very good question. Sometimes they can slow down the process. However what has been found, and these experiences incoming more from developed countries because they tended to have more participatory processes that it's found that while participatory process makes the early part of the planning process longer when it means later though, is that you have fewer impediments in the implementation basis and to make expansion because the concern have been addressed earlier and you tend to have more social buy-in and more agreement around division. So, the important thing then is making sure that you come up with a participation method that works for the political and culture context of the city or the area that you're in.

Vickie Healey Okay, great thank you again. Next question is focused on around the integration of land use and transport—transport planning and just asking if you can speak a little bit to the difficulties and complexities involved in integrating land use in transport planning.

Dr. Robin King Sure, so this is something where I think integrating land use and transport planning often is much institutional and political challenge. The early administration challenge is a conceptual challenge. One of the things about many of the planners that we have so throughout the world have learned whether—then maybe in transport planning then maybe in land use and it really learned how to deal the two and how did you're going to in integrated way. It certainly implies supposed right now sort of most folks can learned how to combine those divisions. One of the things that we are now able to do better because of the power of technology in computers and wider the availability and to especially reference data is to think about the geographic and then the land that—the land use elements of many kinds of investments.

That before really works- almost shots in the dark, and now because of the modeling tools that we have and some of the data capabilities that we have it becomes much easier to blend it together. Now one of the challenges is the models to do that are still relatively complex and what we are think though is a lot of progress being made in that modeling role that should allowed this to become easier. We've also seen the use of simulation in games so that people are more comfortable doing this when you think about something it's very commercial like Sim City or with block sort of physical games in scenario building sort of play.

Folks are able to think about new race of integrating this together by to think that the data availability in the computational side of things is an important of this. Now the big challenge often is the bureaucratic challenge it's because one department is in charge of land use and then other department is in charge for transportation. There was needed is leadership from the top as well as pressure from the bottom I mean, to make an effective.

Vickie Healey

Okay, thank you. Our next question comes from audience member who's currently attendee to for a past year to emissions into 2015 for the Philippines. Her question is she would like to know what transport policy or policies may have a significant impact on lowering CO2 emissions.

Dr. Robin King

So, the biggest thing in—I would say is to really focused on the area of avoiding new emissions so as we have cities that are being built and rebuilt, in a way so that people can meet their mobility needs in low-emissions method use in low-emissions method such as walking, such as biking. So, we're really talking almost about a return of villages within cities so that often—and then sort of those around transit notes. So, that folks can use public transit to move around for the longer distance needs. We don't want to make—to make cars sort of total villains or erase them, but we want to just not to have to use this much as possible.

Then, we need to think about making sure that the technologies that are used by the vehicles that are going to lead to emissions using the cleanest fuel as possible and we can think about that through fuel standards, you can think about different kinds of technologies to make to use more efficient and to emphasize the improving the elements of things. But, the single biggest thing is to try to build cities in the way and to structure the economy in a land use so that we don't need to get into the vehicles that will end up emitting, but that we walk and then we biked and we improved our health as well as the health of the planet.

Vickie Healey

Good answer thank you so much for that. Next question this is a good one and from one of our audience members: if you would—from your perspective who should be the driver for urban mobility plans in general be the citizens, the government by the sector a combination of all of these, what is your perspective on that question?

Dr. Robin King I would say we found all of them participating—it becomes very hard for them to succeed, but that the most important participant typically is the government. If you don't have the political support that you need nothing will happen. I think the private sectors important although in some places the private sector really hasn't been terribly involved in the world that we live in now with public, private partnership everywhere. But, I would say it's typically is very important too but it doesn't always drive things in the most socially efficient or effective ways. So, I would say if you want each of those groups to be involved but that government probably is the most important player in the process. The dream is that you have some sort of creative entrepreneur who've been active in the civil society who emerges as the mayor or as political leaders so that you can bring all of these things together but that is happened all the time. So, without the government leadership it's very, very hard to move forward with this.

Vickie Healey Great thank you so much sounds like a good champion for these types of policies are needed within the government structure. Next question for you Dr. King is simply I'm just look that out. Where can we find more about these types of urban mobility plans and additional resources that will be available to develop them?

Dr. Robin King So, this is the guide that this presentation is based on should be available within the next couple of weeks. Some of the UN Habitat website as well is in the EMBARQ website I'll be—I would be honored if it was on the Clean Energy Solution's website down the line so that has a lot of further resources. There also is a project that is right on the European Union on the Sustainable Urban Mobility Plan or SUMP and so if you go to—I don't remember the actual address but something that easy enough to find and that's available in multiple languages that all of the European languages that down side I would say of this report has been written from a very European standpoint.

So, examples are often from Europe and they—they sort of assume as certain level of the administrative and bureaucratic maturity that isn't always present. But, we try to do in our guide was to develop to really aim at a mid to low income emerging economy that may not have very much of the bureaucratic structure that needs to successfully implement something and we exclusively we talked about that and to talk about examples. So, I would say I wish that I could say right now is out there but it should be publishing within the next couple of weeks.

Vickie Healey That's great news and I just want to let you know that we at the Clean Energy Solution Center will definitely be including this guide in our resource collection and we'll be more than happy and honored to highlight this as a emerging and new resource for our audience and users.

Dr. Robin King Great.

Vickie Healey

I just would like to reiterate that so—great. I'm just looking through and look like Robin at this point those are all of the questions that we received from the audience. So, with that if the audience does have a remaining question I invite you before we conclude to please go ahead and submit your questions and I will present them to Dr. King. But, in the meantime I think this would be a good time to jump over to our survey to go a little bit of feedback from the audience to understand how we're doing and your feedback get a little bit of your feedback on the webinar itself.

So, with that our first question is "The Webinar content provided me with useful information and insight," and just please answer next to the answer that you must agree with strongly. Thank you. The next question "The Webinar's presenter/presenters were effective." Then, next question, "Overall, the Webinar met my expectations." Next—excuse me next question, "How are you likely to use the knowledge gained from this webinar?" and just select one of the following answers on your screen.

Robin before we conclude I'd just like to mention that we received several thank-yous in the questions pane of where the great presentation you presented and if you have any final closing remarks you'd like to make to the audience I'd like to offer you that opportunity now.

Dr. Robin King

Sure, one of the thing will be to remind folks, once this publication comes out and in fact so the series of publication that there are expensive references in bibliography and further resources that are included in each of these guides that I think really our wonderful resources for folks who are working in this field around the world. Some are regions specific, some are global, some are in different languages and I think there are many resources that are out there. But, that we all have been done is getting a job, as they need to disseminate them. So, I really would like to thank the organizers I thank all of the attendees for sharing some of their time with me. So, that I could talked about the work that we've done and I really hope that you share it with your colleagues and let them know that there are lots of folks that are out there around the world willing to help.

Vickie Healey

Interesting and thank you again so much. I'd like to also again just quickly thank the audience for answering our survey. Your feedback is really important to us and I hope just to understand what we were doing really well and really might be able to improve. So, with that I'd just like say that on behalf of the Clean Energy Solution Center I'd really like to once again it's a very sincere and hardly thank you to Dr. Robin King our expert panelist for panelist and also to our attendees to you for participating in our webinar today [Indiscernible][0:54:55] you have been a great audience and we really appreciate your time and your feedback on the survey.

We invite you to check the Solution Center website over the next three weeks or days actually. If you would like to go back and review these slides and also we have audio recording on today's presentation posted

there as well so that you can go back and—others can go back in review these slides and also hear the audio recording. Then, we—again we want to invite you to inform your colleagues and those in your networks about the Solution Center Resources and services that are reviewed earlier including the no-cost policies support that I spoke a bit about earlier in my presentation. With that I'd just like to wish everyone a great rest of your day and again we hope to see you again on future Clean Energy Solution Center events and with that concludes our webinar, thank you.

Dr. Robin King

Thank you.

Vickie Healey

Okay.

DRAFT