Please stand by for realtime captions.

Good afternoon. Name is Denise and I will be your conference operator today. I would like to welcome everyone to the preparing a benefit cost analysis conference call. All lines have been placed on mute to prevent any background noise. After the speaker's remarks, there will be a question and answer session. If you would like to ask a question during the time, press the start, the number one on your telephone keypad. If you'd like to withdraw your question, press the pound key. Nicole, you may begin your conference.

Hello and good afternoon or good morning depending on where you are. Welcome to today's webinar on preparing a benefit cost analysis. My name is Trent eight, our moderator for today's a similar. I went to let those of you know you will need to meet your computer speakers or else you will be hearing audio over your computer as well. During the presentation, if you think of a question, you can type it into the chat area. Please make sure to send your questions to everyone so that everyone can see them. Our team will be answering questions during the chat during the presentation. Questions that are not answered be a chat will be addressed during the question-and-answer session during the presentation. The operator will open up the phone lines for westerns after the presentation. At that time, please press\*one on your telephone keypad to be placed in the queue if you have a question. The presentation is available for download. Today's webinar is being recorded and the recording of this presentation will be available online in the next two days. I will send an email out to all registrants once it is available.

If you have any additional technical questions, please do send them to me via the chat pod or email. [ Indiscernible ] of office of secretary [ Indiscernible ] Department of Transportation. Darren.

Thank you. I appreciate all of you joining us. We have a lot of interesting things in this webinar. I look forward to providing information and entertaining questions that you all may have today.

All project sponsors should submit [ Indiscernible -- low volume ] submit a benefit cost analysis as part of their TIGER grant application. USDOT will consider a project -- project demonstrated benefits and costs in evaluating applications.

Once we receive your analysis, we are going to [ Indiscernible ] process. USDOT economist will review the applicant's BCA. Examine key assumptions in the analysis, correct any technical errors that we discover. We will look to perform a sensitivity analysis on key inputs and consider any unquantified benefits.

We have updated our BCA guidance for the program. That covers both TIGER and INFRA. [ Indiscernible -- low volume ]. We combined those into a single document. We covered some additional topics that we have discussed in the past. We have some additional and updated recommended values for you to use. This web address shows you where you can go to get that guide. [ Indiscernible ] talking through today are topics that are covered explicitly. We will get -- there in more detail than perhaps we will get in this webinar.

What we would like to see from applicant's is a transparent and reproducible analysis. That is BCAs it should provide enough information for a reviewer to follow the logic and reproduce the results. Things that help us get there would be for example, spreadsheet files that actually show the calculations that we can follow through. Any technical memos describing analysis and documenting any sources of information used with the assumptions and inputs. We would really like to see the benefit and cost to streams being presented on an annual basis, not just a summary output. We will talk about more specifics perhaps in the Q&A period. Again, the more closer to the original analysis that you can provide us, the better.

Actual spreadsheets are better in terms of conducting our reviews and pictures of spreadsheets. We will talk to you what the possibilities are. Any benefit cost analysis really rely -- quality comes back to having a good baseline. What we are doing in BCA is measuring the costs and benefits of a proposed project against a baseline alternative in which that project [ Indiscernible ] occur. Sometimes, that is the base case or the no build. Some suggestions and constructing a good baseline, you want to make sure you factor in any projected changes such as increased traffic volumes that would occur even in the absence of the listed project. You should factor in ongoing routine maintenance. You should consider the full impacts of the no build. For example, in the case -- if something comes up -- people asked about projects that are [ Indiscernible ] bridge. Thinking about what would actually happen in the event of a no build. Conduct ongoing routine maintenance but eventually, [ Indiscernible ] to the point where [ Indiscernible ] posted with weight restrictions or even closed. You can take into account the impacts of that in terms of the closing traffic diversion and other costs and factor that into the baseline for the project against which you are comparing the impacts of your improvement project to get those negative outcomes never come to pass.

Some don't on the [ Indiscernible ] baseline, don't just assume in your baseline that the same improvements or a very similar improvement will be implemented later. We are not looking for an analysis that talks about accelerating the implementation of a particular project. We are looking to find that one of the project itself makes sense economically. Also, we always caution against using unrealistic assumptions about alternative traffic flows particularly in the case where you are looking at alternatives that might involve the use of a different mode. Make sure those are reasonable and tied to the scale [ Indiscernible -- low volume ].

Demand forecasts are an important part, important to the analysis. Most benefit estimates depend on ridership or usage estimates. Provide supporting info on those forecasts, the geographic scope of the forecasts and the key assumptions. Data sources that were used and the methodology. [ Indiscernible ] hundred page technical report, but just enough information that we can get a good feel for where these key inputs are coming from. Again, keeping what we mentioned with transparency, we would like you to provide forecasts for intermediate years. [ Indiscernible ] and a forecast your. We would just like you to at least interpolate. Don't apply forecast your impacts to interim years, sometimes things we often see. Be careful with [ Indiscernible ] assumptions. [ Indiscernible ] end up assuming a [ Indiscernible ] growth rate. Take into account the underlying capacity [ Indiscernible ]. It comes down to think carefully -- all the other issues we will be talking about. Think carefully about what your numbers mean and how they relate to one another. You may be assuming [ Indiscernible ] on a facility keeps increasing. If you do it out many years [ Indiscernible ] in reality.

We will see if this is better. If not, we will see what else we can do. Next on the analysis period. The analysis period is [ Indiscernible ] key. As a cover both the initial development of the project including construction and a subsequent operational period. Generally, the analysis period, that should be tied to the expected service life of the improvement of the asset. We think of that as the number of years until you what expect to have to take the same action again. If you are doing a rehabilitation project when you would do a similar rehabilitation project [ Indiscernible ] vast improvements, what is the [ Indiscernible ] of your capacity improvement. When would you expect [ Indiscernible ] capacity again?

In doing this, we would caution however against [ Indiscernible ] avoid excessively long analysis periods [ Indiscernible ] assets. Our recommendation is that even for very long [ Indiscernible ] you are not using an analysis period that occurs longer than 40 years of operation. Perhaps [ Indiscernible ] most improvements we would expect [ Indiscernible ] shorter period than 40 years. Rather than using [ Indiscernible ] excessively long analysis period, we recommend you use a residual value which we will talk about more later to cover those out years of remaining service life for long-lived assets.

Inflation and discounting. Also, very important. We recommend using a 2016 base year for all cost and benefit data to make sure that you are comparing apples to apples. [ Indiscernible ] index values going back from years for the GDP deflator commonly used inflation index. Discounting is also important. When you're looking at flows of costs and benefits that occur in different years, [ Indiscernible ] present value terms. We are recommending that all BCAs use a 7% -- produce results using a 7% discount rate. If you like, you can also provide a 3% discount rate. This is a sensitivity analysis, but we are not looking for everyone to provide us with the 7% [ Indiscernible -- low volume ]. [ Indiscernible ] people provide both or suggested in some circumstances if you percent might even be preferable -- a few it percent might even be preferable but [ Indiscernible ] 7% is what we would like and we think that is more consistent. [ Indiscernible -- low volume ].

The scope of analysis is very important. It is really critical that the project scope used to estimate the costs of the project and to estimate the benefits has to match. Don't do things like claiming benefits from a larger [ Indiscernible ] TIGER funded portion or any [ Indiscernible ] of the scope of the project. The scope should also be large enough to cover a project that has independent utility. There might be other projects besides the [ Indiscernible ] investments beyond the Tiger funded projects that are actually necessary in order to achieve the benefits you are claiming for the project. This could be [ Indiscernible ] investments or even investments in projects that are currently underway. You might need to incorporate those costs into your BCA to make sure that the scope matches up [ Indiscernible ] costs and benefits. Project elements with independent utility should be individually evaluated in the BCA. Our BCA evaluation will cover both independent elements individually and the submitted project as a whole. [ Indiscernible ] independent elements, you should be able [ Indiscernible ] benefits and costs for the overall project as well.

Benefits. For the third time, should be presented on an annual basis. Don't assume constant annual benefits unless you have an exclusive reason for doing so. Negative outcomes that might result in the project should be counted in the analysis as this benefits. [ Indiscernible ] works on impacts. When you have a project that might involve reconstruction on an existing facility, there could be some negative impacts on users of the facility during that period of construction. [ Inaudible -- static ] in the office. [ Indiscernible ] negative benefits in the way we do the calculations.

Travel time savings are one of the most common sources of benefits associated with transportation projects. Their recommended values for the value of time are found in our BCA guidance . We would direct you to use those. Particularly when talking about [ Indiscernible ], make sure you consider vehicle occupancy. Values that are [ Indiscernible ] and our guidance are on a per person basis. So [ Indiscernible ] provided some a general values for average vehicle occupancy, national basis. If you don't have a more specific facility. At the same time, where you do have them, [ Indiscernible ] factors tied to a particular facility, we would request that you use those because they would be more accurate.

Be careful to avoid double counting travel time savings and other impacts. If you are going to provide an estimated [ Indiscernible ] benefits based on value and travel time reliability independent changes in average travel times, in the past we have always recommended people do that on a qualitative basis. It provides a little bit more flexibility. We recognize there are a number of methodologies out there that are being employed. However, we would simply ask if you do include [ Indiscernible ] travel time [ Indiscernible ] analysis, be careful to document the methodology and tools that you use so we can look at that. [ Indiscernible ] show how the evaluation printers [ Indiscernible ] are really -- parameters [ Indiscernible ] are really [ Indiscernible -- low volume ]. A particular method may not be entirely clear how should the [ Indiscernible ] estimated benefits are.

Vehicle operating cost savings. Again, on the flipside of travel time costs. Make sure you avoid double counting those operating savings. For example, [ Indiscernible ] truck travel time savings, fuel usage reductions. Make sure you only count those savings once. We do provide [ Indiscernible ] values for truck operating costs and automobile operating costs in our new guidance. Although, again, if you have localized specific data relating to those, that would be preferred.

Safety benefits from projects are typically associated with reducing fatalities, injuries, and property damage. Any projected improvements in safety outcomes should be explained and documented. It should show clear linkage between the project and those improved outcomes. We would like you to use a facility specific data history where that is possible. Make sure you justify the assumptions about reductions in crashes and injuries or fatalities. Our guidance, there is more discussion there about things such as -- [ Indiscernible ] crash reduction factors are published by the Federal Highway administration. If you are going to assume -- make assumptions to the project, use crash rates or any other safety factor, please explain where you came up with that number, what the basis is rather than just providing it ad hoc.

In many cases, the -- any crash related data you have made need to be converted from the [ Indiscernible ] scale -- [ Indiscernible ] discussion on doing that. Emissions reduction benefits for infrastructure improvements, those emissions reductions will typically be a function of reduced fuel consumption. We do have recommended unit values for [ Indiscernible ] compounds. Be careful about the measurement units being applied there. You want to make sure you don't use grams or pounds or other things like that. We would note that unlike in the past, we currently do not have recommended values for carbon dioxide emissions reduction. The guidance that we previously used is made subsequently and then rescinded. This doesn't mean that we aren't going to consider carbon dioxide emissions reduction, simply that we don't have a specific recommended value. However, if you do quantify CO2 emissions reduction, CO2 emissions reduction should be discounted at the same rate as other benefits and those studies should be based on domestic damages rather than global damages associated with the [ Indiscernible -- low volume ].

Talking about the benefits to existing and additional users. The primary benefits associated with the transportation improvement are typically going to be experienced directly by users of the improved facility. This includes both existing users. By existing, we mean users of the facility that would occur even under the baseline. When you are looking at a future year, that could be a higher level than current traffic volume. Also, additional users attracted to the facility as a result of the improvement and our standard practice in BCA would value benefits to additional users less than those for existing users. [ Indiscernible ] capture that as well. Our BCA guidance has a discussion of how to go about doing that.

Modal diversion, a topic that often comes up and benefit cost analysis. Thoughts on accounting for that. When you look at the projected magnitude of modal, it occurs as a result of transportation agreement, it really needs to be based on careful analysis of the market and potential diversion from other modes that might be specifically attributable to the project. You really need to be able to have a fairly careful understanding of what the potential diversion would be. The benefits estimates should not be based on comparing user costs experienced by people on the old -- users of the old mode and the new mode. Those types of benefits would actually be reflected in the benefits to additional users that we just talked about.

Something we often see and it is really not the right way to go about estimating and if it's for modal diversion. However, at the same time, reductions in external costs would be relevant such as emissions costs and pavement damage. [ Indiscernible ] applicants tieback to particularly when looking at modal diversion, truck traffic onto other modes -- let me just go back to the code of values provided in the 1997 Highway [ Indiscernible ] federal highways. If you are using [ Indiscernible ] don't apply the urban values in their two truck travel as far as you are rural nature. You should also net out the how user fees paid by trucks from the marginal pavement damage costs. We can answer questions about that.

A number of types of benefits, categories, that are may be harder to quantify. We do provide some discussion of these within our BCA guidance . Resilience [ Indiscernible ] associated with [ Indiscernible ] infrastructure against extreme weather events or [ Indiscernible ] events. Those can be factored in. In some cases, there are some [ Indiscernible ] quantitative methodologies. Speaking more broadly, that is also something that can be discussed qualitatively. Noise reduction, in some cases is important. We don't have a specific methodology we have adopted for that [ Indiscernible ] discuss that more qualitatively. Emergency response improvements are particularly associated with [ Indiscernible ] reduced wait times [ Indiscernible ] could factor in other cases. There actually is a methodology for estimating those benefits [ Indiscernible -- low volume ]. FEMA has developed -- would provide a link to that in our guidance.

Property value increases is also a tricky area. It is important if you are using this kind of methodology, double counting benefits users under the facility. The methodology tied to -- to estimate those property value impacts -- really be appropriate for the particular type of improvement [ Indiscernible ] facility that you are looking at. Again, there is more discussion on our guidance and more broadly, quality of life improvements that we are factoring in here also.

Even though you can't monetize [ Indiscernible ] or quantify the magnitudes and the timing of those impacts wherever possible, clearly linking specific project outcomes to any claimed unquantified benefits.

On the costs side, it is important that you include all the costs of implementing the project such as design, [ Indiscernible ] acquisition, and construction. This is regardless of the funding source for those. You should also include any previously incurred costs in your analysis. What we are doing is looking at the project as a whole and comparing -- we include costs [ Indiscernible ] against the benefits we expect to accrue from that project. Maintenance costs, you will hear about ongoing maintenance costs, on that should be positive or negative when thinking about a project. If you are building a brand-new facility, you want to factor in -- you may have some ongoing maintenance costs over the life of the project. That would be important. At the same time, if you have a really militated or reconstructed -- rehabilitated or reconstructed facility, you may result in net savings and maintenance costs between the build/no build. [ Indiscernible ] doesn't occur and you are simply trying to keep up over time with increasing routine maintenance costs.

Residual value. We referred to this earlier in the discussion period. For assets with remaining service light at the end of the analysis period, when it occurs, [ Indiscernible ] for the project. A simple approach to calculate a residual value is linear depreciation. [ Indiscernible -- low volume ] that is fine, it is just another way of doing it. There is more discussion of this in our guidance. Make sure you properly apply discounting and that you also account for any major maintenance and rehabilitation actions that may occur during the out years of your remaining service life period.

When it comes to comparing benefits or costs, to methods that we will look at. One net present value or net benefits is a straightforward. Taking benefits and subtracting the costs. Calculating the benefit cost ratio where you are dividing benefits by costs. The denominator should only include the capital costs of the project. We talked about residual value and maintenance costs under the larger hitting of -- heading of costs. When you are doing this calculation, that maintenance cost and residual value should both be included in the denominator so that only the capital cost of the project -- numerator, capital cost of the project [ Indiscernible ] denominator.

Other issues in BCA. Economic impact analysis . Something that often comes up, and it is often easy to confuse with BCA. In BCA, we are measuring the value of a projects benefits and costs to society whereas economic impact analysis is measuring the impact of increased economic activity within a particular region that might be attributable to a project. In some sense, EIA represents the translation of a first order benefits into other economic outcomes. It does not represent added benefits to be counted in it BCA . More broadly, it is important to avoid counting transfers of benefits. Things such as tax revenues, [ Indiscernible ] revenues and the like those are simply transfers from one project [ Indiscernible ]. They do not represent [ Indiscernible ] added benefits. And also, keeping with the discussion earlier about the costs [ Indiscernible ] calculate benefits, don't do an analysis in which assumes an alternative -- that counts the of what it costs of doing another project [ Indiscernible ] accomplishing the same thing.

For example, you may have a project that involves a large investment [ Indiscernible ] on one particular mode. Don't include the avoided costs of expanding capacity on a different mode as a benefit associated with your particular project. It should be focused on your project [ Indiscernible -- low volume ].

For more information, you can go to the TIGER website . I provided a link specifically to our BCA guidance or you can email the team and they will direct any questions you have it to the right places, the right people to answer. Again, a reminder of the upcoming deadlines for applications is October 16. With that, we're happy to answer any instance you have -- any questions you have.

We actually have one question over the phone. If you could open up phone lines for questions please.

Certainly. We have a question from [ Indiscernible ], your line is open.

Are you there, color? -- Caller? Are you there? Okay. I guess we will go to the questions in the chat then.

We have a number of questions in the chat so we will take them in the order that they appear. First from Greg, we use credits to produce our benefit cost analysis and then our grant writeups in previous years, we have [ Indiscernible ] screenshots of credit [ Indiscernible ] support documentation. Can we still do this or have requirements changed?

First off, we are looking for -- as I said earlier, we are looking for analyses that are transparent and reproducible as possible. Requirements is a strong word so we are not going to reject your application if it is not as transparent of every condition as we like. However, in some cases where we are unable -- in cases where we don't have [ Indiscernible ], we may need to go back to and post additional questions to help us better understand the analysis where that isn't readily apparent in the information as provided. So we talked about this, I don't want you to leave with the impression that your application will be rejected on that basis. We also recognize that there are some proprietary models out there, different types of output but what we would like is for you to provide as much information as he possibly can from your analysis and including if you are unable to provide us with [ Indiscernible ] spreadsheet where we are able to go in and [ Indiscernible ] analysis on our own, we would ask you to provide the amount of documentation [ Indiscernible ] assumptions or to produce a number of sensitivity analyses on your own that you could use again to compare how the results changed when you [ Indiscernible ] perimeters of -- parameters of [ Indiscernible -- low volume ].

Jesse asked as per slide number three, will [ Indiscernible ] economists be [ Indiscernible ] any technical errors?

Yes. For example, [ Indiscernible -- low volume ] the cost ratio includes a large component for benefits that we would consider [ Indiscernible ] as well, we will take those out and produce our final assessment of the net benefits [ Indiscernible ] with the project.

Ron asks we are submitting the same project for 2017 Tiger the we submitted in 27 -- 2016. Can we just update the analysis we did in previous rounds?

Again, we will take whatever analysis you were able to provide us. We do have [ Indiscernible ] suggestions. You might look at [ Indiscernible ] take a look at their and see if there is something that might be applicable to a particular project that will help you in making the case. If you are beyond that, the only thing I can think of specifically that we would really need is if your old analysis was only done with the 2% discount rate, we would need you to update that using a 7% discount rate. At the same time, if you are able to provide us with a spreadsheet that allows for [ Indiscernible ] analysis of key parameters, we are happy to make those adjustments during the review process. If you happen to go back [ Indiscernible ] analysis from scratch.

Andrew asks a question -- I believe this is when you were discussing which dollar value or years of dollars to use. He asks what of the project doesn't start construction until 2018? While we go back to 20 $16 -- 20 $16?

[ Indiscernible ] as being in the same year as dollars. I would recommend 2016 in part as a way of adding some comparability across all of our applications. I didn't mention this explicitly -- what you would need to do, you may have construction costs estimates that provide year of expenditure dollars in those out years. The year of expenditure estimates would have some kind of inflation assumption baked in. Obviously, we don't know what inflation is going to be like between now and then. You need to basically -- whatever those [ Indiscernible ] inflation assumptions are, factor those out for the are presented, presented into the cost of your base your dollars.

Valerie asks can you give an example of related costs that we need to be included in the benefit cost analysis? I believe this is slide specific.

I am trying to think exactly where we used the term. I apologize.

It was in relation to the independent utilities slide.

Costs for related investments perhaps. For example, your project may include some investments that will enable you to shift certain amount of traffic from a truck to rail. Actually achieving that, you may have a project that involves some rail track improvements or [ Indiscernible ] or other improvement to help you accommodate that. However, there may also be [ Indiscernible ] handling facility, but that is also key to enabling these types of modal shifts to occur. That [ Indiscernible ] facility may not be part of this project. It is important that you actually include those costs in the project itself. [ Indiscernible ] may have some [ Indiscernible ] improvements that would help accommodate future increasing in a passenger rail service within a court or -- court or. If you want to look at the ultimate benefits associated with that increase in customer service, you need to include the cost of actually building the new track as well as [ Indiscernible ] improvements that are needed upfront.

Nathan asks if this is part of a phase project should the benefit cost analysis cover all phases or just the portion that a Tiger grant would fund?

We would like to see analysis that is -- assuming that the Tiger grant [ Indiscernible ] that has independent utility so that it would be useful even if the additional faces were not constructed. We would like to see an analysis that is tied specifically to that phase. At the same time, we recognize that the information available to the [ Indiscernible ] cost analysis may be based on environmental documents or other analyses that tied to the larger [ Indiscernible -- multiple speakers ]. In that case, it would be appropriate to look at the larger projects. However, we would like to see some discussion -- anything you could provide us that demonstrates that this project itself would have merit independent of those additional and funded [ Indiscernible -- low volume ] would be desirable.

Deborah asked what all costs also include the cost during construction such as inspection, materials testing, construction management and administration of the construction contract?

I believe yes. The project cost elements that are eligible -- construction costs elements -- eligible costs in this project [ Indiscernible -- low volume ] included in the analysis.

Brian asks is FEMA's benefit cost analysis software acceptable as a benefit cost analysis for TIGER ?

We reference -- there is a specific methodology on debt -- tied it to emergency response. Jordan, are you familiar with the separate cost analysis tool [ Indiscernible ] produced?

No, I am not.

We are not familiar with [ Indiscernible -- low volume ]. [ Indiscernible ] question perhaps the email and direct it to -- it is something we could certainly look at.

Andrew asks what is the difference between the TIGER and INFRA grants benefits cost analysis? Can they be the same?

Yes. If it is the same project, we would expect them to be the same. That is why our guidance [ Indiscernible ] same it BCA guidance document [ Indiscernible -- low volume ].

David asks is the weighting of the benefit cost analysis and project selection consistent with the previous years of the program?

Say that again.

Is the waiting of the benefit cost analysis in the project selection consistent with the previous years of the program?

I think that within the context of it TIGER, the BCA analysis is one of a number of different selections criteria that evaluators and decision-makers will be looking at and making their selections.

Janet asks if we are submitting an application for rural funding and this project is more of a safety improvement project, what part of a benefit cost analysis should we focus on? Emission reduction and travel time savings will be minimal.

[ Indiscernible ] any project. If your project is oriented to really improved -- aiming at improving safety, focus on where you expect to see the biggest benefits that would result from the project. That is something we often sometimes, we will see projects that have the right up of technical evaluation factors focusing on one particular area but when we look at the BCA, [ Indiscernible ] in terms of the amount of detail or even the estimated impacts shown in the BCA. I appreciate that question. That is an important point where we expect to see the biggest thing [ Indiscernible -- low volume ] associated with underlying purpose of the project.

Are there any questions on the phone line?

Not at this time. Just a reminder, if you would like to ask a question over the phone, please press\*one on your telephone keypad and have your telephone unneeded.

Another question about TREDIS. Transport uses econometrics models to capture the increase in productivity due to accessibility and connectivity although TREDIS [ Indiscernible ], it does not provide actual coefficients of valuables which make it difficult to reproduce the result. With DOT still accept this as a proper methodology?

We recognize this is another one of those outstanding issues and [ Indiscernible ] a benefit cost analysis. We have not adopted a methodology for evaluating [ Indiscernible ] impacts. The challenge is really in [ Indiscernible ] how truly distinct those are from other sides of impact associated with the project. And also, the magnitude of the impacts [ Indiscernible ]. So I guess our recommendation would be focus on and represent those as unquantified benefits. Presenting any numbers you might have, and as part of that discussion -- explaining how your project is expected to achieve those particular outcomes. That would be kind of our preference on how you handle that.

We have a couple of questions asking whether there are any templates or a suggested format for the benefit cost analysis?

We don't have a specific template. There are various ways of doing this. The ones -- we don't have a specific template to provide for you to use. To applicants developing their benefit cost analysis.

Marcy asks we purchased a for sale property which has improvements and a facility which is an old FedEx distribution warehouse that is compatible for transit maintenance and operations use. There will be remodeling the facility and redoing some of the exterior improvements. This has a saved millions over developing raw land and developing new. Can this cost savings somehow be included in the benefit cost analysis?

[ Indiscernible -- low volume ] describe the project. The general answer again would be no. It should be looking at what this particular expenditure, with this particular project is doing and the benefits, the impacts of that [ Indiscernible ] to users and nonusers across the facility. The fact that you [ Indiscernible ] definitely cheaper than another option is we would applaud you for having a process, but that doesn't really get at the benefits costs of the particular project here. Particular improvement that you are making.

John asks as with passengers and crew, free travel time has an opportunity cost which is related to handling or storage costs. Do you accept this as part of the benefit?

Yes. The short answer here is yes. Often times where we see these [ Indiscernible ] significant way where it comes to liability benefits associated with that. The methodology [ Indiscernible ] based on the inventory -- typically, [ Indiscernible ] small relative to other costs. Other components in the value of time. We don't have a specific methodology on that but if you want to incorporate that, that would be fine. Again, make sure you are specifically identifying what the assumptions are.

Mike would like you to please repeat to the key points under other issues, transfers.

So a transfer is typically a financial impact [ Indiscernible ] such as an increase in fair revenues or tolls or an increase in property tax revenue. That might be associated with economic development. The key is -- this applies to economics [ Indiscernible ] analysis more broadly. Impacts that are basically [ Indiscernible ] costs and the benefits -- that cost and benefits is the same from one society to another. If you consider transfers, they would not be added benefits that you would include in your analysis. For example, you are and operator of a facility and [ Indiscernible ], it is going to increase your revenues. You are also increasing the cost saved by users of your facility so it is really a wash. It would not be appropriate to include that. It may be useful financially [ Indiscernible ] utilities but from a [ Indiscernible ] perspective, it is not a net added benefit. [ Indiscernible ] discussing -- there are cases in which those revenue impacts may reflect other -- the increase in value that we are sort of experiencing. May be appropriate in some circumstances to use that as a proxy. If you are doing so, be careful. Avoid double counting it with other benefits [ Indiscernible -- low volume ].

Valerie asks if we have a bridge crossing that will be built separately in a different phase that will tie and eventually to a regional trail in our project that we want to submit currently for TIGER, would that be considered a related cost per our independent utility project?

I guess it depends on whether the benefits you are estimating -- whether that other project -- if that other project is necessary in order to achieve the benefits of your trail that you are applying for, then [ Indiscernible -- low volume ] elements should be included [ Indiscernible ] benefit cost analysis. Where it's tricky is that is a future phase and it is not funded right now. That may make -- it would be fair to say that you would make the smaller project less competitive if it relies on -- if achieving the full benefits requires additional improvements?

I think it would depend on the overall when the phase is and whether or not that phase is dependent -- if the regional trail depends on completion of the later phase, and that would also bring up questions related to how we would be [ Indiscernible ] but the overall benefits. So I would think that you could put in both and make clear whether this could -- the distinction is would be my recommendation.

Jeannie asks we have a proposed private terminal that needs improved rail to move the increased freight that will be generated from this new terminal. Am I correct that I have to include the cost of the new private terminal in the benefit cost analysis?

From that description, I would say yes. You really need both pieces in order to get the impacts that you are projecting as driving the benefits [ Indiscernible ] project [ Indiscernible -- low volume ].

[ Indiscernible ] projects [ Indiscernible ] properly incorporate those [ Indiscernible -- low volume ].

Roger asks we are looking to make major improvements to our AOM facility , no AO of building , electrical improvements to accommodate an all electric bus fleet including charging capacity and maybe solar. Increased bus storage, no immediate in-service improvements. Is this a reasonable project for TIGER ?

I think that as long as it is an eligible project under the [ Indiscernible ] 23, then it would be eligible under TIGER. So I think that some of the expenses would be eligible. I think you might want to email us with more specifics so we can take a look, but in general, as long as the project is eligible under title 23, it would be eligible for TIGER. The one thing that we do want to make sure of, however, is that for kind of the solar pieces, if you are doing any research or anything related to those, we cannot funded research projects. It would need to be a construction element. So [ Indiscernible ].

And to take -- I'm sorry -- 53, chapter 53 to take a look for eligibility for transit expenses.

Rose asks we have a project that is being planned for that is currently considered a blighted TID area of the city. Can the benefits of improving this area be included in the benefit cost analysis?

This gets into a tricky area. What is challenging is if you decide projects [ Indiscernible -- low volume ] what types of impacts are directly attributable to the transportation improvement itself as opposed to improvements that would occur as a result of other ancillary investments in the area. I am hesitant to say don't look at that, don't talk about it at all, but be careful in what you actually tie to transportation project itself as opposed to larger [ Indiscernible ] redevelopment activities that would produce those [ Indiscernible -- low volume ].

Do we have anything on the phone lines?

No questions on the phone. Again, if you would like to ask a question on the phone, press\*one on your keypad. We still have an hour left in the webinar. So get your questions in.

David asks we have a project to double track a portion of a light rail line to increase severance frequency. Could we also include needed rolling stock along with the construction? Basically, is rolling stock and eligible expense?

Yes.

With that, I have no more questions in the queue.

Okay everybody, we will pause for a few minutes here. If you have any questions, please send them into the chat or press\*one on your keypad. If we don't see any questions in the next two minutes, we will go ahead and close out.

Karen asks do you have a list of all the kinds of previously submitted benefits? Examples would be helpful.

[ Indiscernible -- low volume ]. Our updated guidance [ Indiscernible ] a number of topics, a number of new topic areas [ Indiscernible ] discussed in our guidance of work. I wouldn't [ Indiscernible ] exhaustive [ Indiscernible -- low volume ] benefits that might be applicable [ Indiscernible ] analysis.

I would like to clarify my answer to David's question about the eligibility of rolling stock. We do have a frequently asked question about it. Any rolling stock that we include as part of a tiger project would be a federal requirement applied it to that. If you have questions and want to go through and take what exactly those are, we have more information on it on our FAQ portion of the website.

John asks we have a federally designated local highway that is adjacent to the Atlantic Ocean in Rhode Island and is subject to repetitive coastal erosion and over wash. There are no alternatives to relocate this highway and is the sole means of access to over 240 properties. Can TIGER funds be used to construct a sheet pile Sewall to protect the roadway from coastal erosion?

If you could actually send us an email with the specific for that project, we can dig in a little deeper and get you an answer. The email TIGER grants@[ Indiscernible ].gov. We will be able to respond if you send us more information.

David asks are there any cost-benefit analysis of spreadsheets out there that he could take a look at?

I remember applicants in the past who have posted their full Tiger grant applications online. I might be able to search for some of those and see what information they provided in the BCA as part of their overall application package.

The department did not release any [ Indiscernible ] submitted applications [ Indiscernible ] as just a general rule. Omar peters asks our project proposals -- proposes a dual use bus and LRT ramp. TIGER will be able to fund the rent for the buses before LRT operations in 2030. Can the BCA include the benefits from the bus use and the LRT benefits?

I want to say yes, but you would need to make sure you fully incorporate all the costs of the LRT service. When you are getting that far out, it gets more -- it gets a bit more challenging in terms of really presenting these as to pieces but to exactly the same thing. One is the eligibility issue, but for the BCA, if you are looking at many years, eventually [ Indiscernible ] the ramp would also be -- would serve other [ Indiscernible ] transportation users. You could do that, but you need to make sure you include all the [ Indiscernible ] of the LRT service proposal.

The other thing I want to make sure to the extent possible -- and the benefits you are talking about in the BCA are also those you are discussing in your application.

Yes.

We have a few people that are typing.

Kyle asks I am still unclear as to how this works. For instance, we want to replace transit vehicles which have reached their useful life and it seems we should be using a standard set of formulas as other agencies looking to do the same thing. Yet it seems that each applicant is left to almost make up their cost-benefit analysis and what they deem important to include. Are there any standards that I should follow?

Our guidance is intended to help out -- applicants strictly with understanding key parameter values [ Indiscernible ] approaches. However, we rely on applicants to define their specific projects and recognize that there is often variation among projects and particulars. As a result, we tend to shy away from being overly prescriptive in that regard. I guess certainly looking at what other applicants may have done similar when [ Indiscernible ] similar types of projects might be useful. We just don't have [ Indiscernible ] specific methodologies for specific types of projects that we put out there.

[ Indiscernible ] reduction analysis. Is ARB methodology considered okay with you now?

Honestly, I am not familiar with ARB methodology. I can't give you a firm answer on that.

It looks like she is responding in the chat. If you can't speak to ARB , it is very robust, can you give some general guidance about what you are looking for a what you don't want with relation to the GHG and criteria pollutant reduction analysis.

I guess going back to what we mentioned during the presentation. In our previous methodology recommended [ Indiscernible ] all GHG reduction benefits, [ Indiscernible ] reduction rate regardless to the [ Indiscernible ] we seen in the analysis. That is no longer the case. We want to see GHG measures -- values for future year reduction in GHG emissions that were calculated using the same discount rates you would use [ Indiscernible ] which would be 7%. That is what we are asking everyone to do. And then in keeping with the current federal guidance, we would ask you to focus on the domestic portion of damages caused by GHG emissions rather than looking at the global [ Indiscernible ]. [ Indiscernible ] extent of the official guidance [ Indiscernible ] would be applicable in this case. But specific methodologies, we are at a point right now were we have not adopted the specific methodology [ Indiscernible ] impacts.

Chase asks will you be able to provide feedback on a draft BCA if you were to share -- given a copy before the submittal?

Unfortunately, we are not able to review either applications or BCA before the application deadline. If you have technical questions about the content, we will be able to help you through those, but we are not able to provide advanced reviews of either BCAs or applications.

Andrew asks are you able to provide feedback on benefit cost analyses submitted in previous rounds of TIGER ?

Sure. As part of our debrief for prior years applications, if you email us at tiger grants@[ Indiscernible ].gov, we can set up a debrief for you on your projects but those must be completed before the application deadline.

[ Indiscernible -- low volume ] via the chon -- phone or the chat. We will give it another minute or two to see if anyone types in a question. We have 45 minutes available if anyone has any other questions or needs help.

Lori asks as a promise zone, do we get priority points through the scoring process?

First of all, we do not have quantitative points to the application process so there is no way for any of the different criteria to actually obtain points. For different types of applicants, we do not -- there is no prioritization for them. However, to the extent that as a part of the promise zone, you have been able to demonstrate partnership, we would encourage you to detail that within the partnership secondary selection criteria. It does not give you a prioritization or an advantage in the overall process.

Mike asks is there a specific benefit cost analysis threshold or ratio that a project must meet? Are projects required to have benefits that outweigh costs?

The short answer is no. There is no minimum. Under TIGER, there is no minimum threshold regarding benefits and costs [ Indiscernible ].

[ Silence ].

Okay. We do not have any questions coming it over the phone or via the chat. As a reminder, the final overall [ Indiscernible ] webinar [ Indiscernible ] 4 PM. [ Indiscernible -- low volume ] occasionally open up [ Indiscernible ] if you are not registered, and if you would like to attend tomorrow's webinar, you can send me an email. I will also let you know in the chat box. In addition, if you are registered and you are -- no longer plan on attending tomorrow's webinar, please email me so I can open up the space for another participant. With that, I hope everyone has a good afternoon. Thank you all for attending.

This concludes today's conference call. You may now disconnect.