

EPA

**Moderator: Maleka Greene
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Maleka Greene: Thank you. Welcome everyone to part one of the Federal Supplier Greenhouse Gas Emissions Inventory Pilot Training. I'd like to thank everyone for calling in today. We're really excited to get the pilot moving and get everyone started on their inventory.

Today, in the room, we have Chris Monica here with me from GSA and we also have Verena Radulovic. Chris and I will be manning the questions here, and Verena will be going over GHG emissions and completing your inventory.

So with that, I'm going to turn it over to Verena.

Verena Radulovic: Thank you, Maleka. Hi, everyone. Welcome to the part one of this training. I also want to thank all of you for participating in this pilot. We are really excited, and we hope also that you have a great experience with this pilot and find that when you're developing your greenhouse gas inventory, you will notice more opportunities for efficiencies and cost savings within your organization.

Before I go ahead and start and give you an overview of what we're going to be talking about today, one thing to note on your dashboard when you're participating in the webinar, there is a Ask a Question function. And we encourage you to ask questions throughout the webinar so that we can know what your major questions or concerns are, and if I'm going over a point that you need more clarification, Maleka can go ahead and stop me and I can clarify it for you.

So with that, what we're going to talk about today is a couple of things. We're going to go over what are greenhouse gas emissions, what do we mean by that? What does it mean to develop a greenhouse gas inventory?

Then I'm going to talk briefly about the benefits of reducing your greenhouse gas emissions, some trends in greenhouse gas management and that it will also point to your participation in the pilot as one being on the cutting edge of what we're seeing in terms of trends in greenhouse gas management.

Then I'm going to dive in to give an overview of how to actually develop an greenhouse gas inventory. I'll show you where you can access our online tools and resources, specifically for small businesses, and then we'll get to talking about what it means to set your greenhouse gas reduction goal and go over finally the GSA pilot requirements.

This is part one of a two-part training series. In today's training series, I want to go over the broad concepts of what we mean by a greenhouse gas inventory. And then on the 15th, we're going to go into a lot more detail and actually perform some model calculations for you so you can really get a handle on our tools and our resources.

So with that, let me talk about what are greenhouse gas emissions. Many of you have probably heard in the news words like carbon emissions, greenhouse gas emissions, carbon footprint and in essence, they're all referring to the same thing which is the activities that your company is responsible for. What are the greenhouse gas emissions that come out all of your activities?

There are lots of greenhouse gas emissions but there are six primarily that are emitted into the atmosphere that are known as greenhouse gas emissions as we think of them.

The first one is carbon dioxide. And on this slide here, I've done it in a pictorial representation so you can get a sense of what the activities are that result in these gases, but these are the six gases – carbon dioxide, sulfur hexafluoride which is SF₆, CH₄ stands for methane, N₂O is nitrous oxide; HFCs and PFCs which is hydrofluorocarbons and perfluorocarbons, which are

gases that are slowly being phased out and they are often used in things like refrigeration or aerosols or things like that.

But a lot of these gases come from everyday activities that you and I do, every day activities that we have in our homes that we have in our businesses. Primarily, they come from when we use vehicles. When we use electricity, we are essentially drawing from power plants that are emitting more of these gases into the atmosphere. When we get into airplanes, there are also direct emissions that come from airplanes. And also things like if you are a manufacturer and you have a lot of onsite use of gases or other sort of boilers or other onsite combustion – that’s going to contribute to greenhouse gases as well.

And I think we all know all of us who are on the phone that greenhouse gases are shown to be responsible for changes in climate. They trap the sun's rays more so that the earth gets warmer and has difficulty in that warmth escaping just because the gas is sort of heat trapping boundary.

And the idea is that that we collectively, as a society, can move to reducing our impact by making sure that our activities have less emissions associated with them.

On this particular slide as well, you'll notice a couple of terms which I’m going to go into more detail about as we progress in this training. You'll notice terms like Scope 1, Scope 2, and Scope 3. And essentially, what these three scopes mean is it's a difference between emissions that you or your company are directly responsible for. So, for example, if your company owns vehicles – emissions coming from those vehicles.

And Scope 2 is your indirect emissions that you generate from purchasing electricity or steam. And Scope 3 lies outside of your company's boundary, if you will. And I’m going to go into more detail about that and we're going to see the slide again.

But when we look at what is a greenhouse gas inventory, it’s creating a boundary around your organization and calculating all of the emissions that

your activities are responsible for generating, specifically to these six greenhouse gases. So that's the overview.

Maleka Greene: Someone wants to know which of the greenhouse gas emissions is more harmful?

Verena Radulovic: Great question. Which of the greenhouse gas emissions are most harmful? Well, each of these greenhouse gases have a different global warming potential, GWP.

Carbon dioxide has a global warming potential of one – has a factor of one. But sulfur hexafluoride, I don't have the exact metric in front of me but I think it's thousands of units more potent than carbon dioxide. Methane is one of the strongest greenhouse gases or having the most global warming potential. And that's why when you hear of methane coming off of landfills as it being so harmful because the effects on the atmosphere are so strong.

HFCs and PFCs sometimes can have upwards of a factor of many thousands of times more potent than carbon dioxide. So of all of these gases, carbon dioxide is I would say the least strong because it's the one that they all are compared against.

But that being said, a lot of your activities generate so many emissions of carbon dioxide alone that sometimes it's even more than a minor use of these in sulfur hexafluoride. So this is why when you're developing your inventory and you're calculating exactly where your emissions are coming from, you can really begin to see where you can have some bigger impacts.

Just to give you an example, if you use just a different kind of refrigerant, you might have a way reduced impact on the environment just by switching that out and those are some things that, on next week's training, you'll see where you can actually identify how to make those changes. So yes, not all greenhouse gases are created equal but these are the top six.

So just really quickly before I dive into kind of going over the concepts of what you need to do when you're creating your inventory, here are just some things that we're seeing.

The EPA Climate Leaders program has been working with companies for many years. We've worked with small companies, we've worked with large corporations and a couple of things consistently stand out that they tell us. One, it lowers your energy bills and it increases your fuel efficiencies.

We had an example, I believe, it was PepsiCo that we had been working with and they had made some changes to their facilities and they saved over \$60 million each year based on those changes. We saw one of our larger companies that we worked with saved \$23 million a year just by changing out certain aspects of their facility.

And from a small business standpoint, we've worked with many companies that are primarily transportation providers, primarily reside in offices, and they too have seen a significant percentage in cost savings just by being able to identify where to be more efficient.

It also helps you with your risk management. If you are a company that relies a lot on procuring particular goods and services that might be vulnerable to changes in weather patterns, this is something that you can insulate yourself against.

You can also insulate yourself against other potential risk associated with greenhouse gas emissions. Primarily, from the standpoint of if you are very reliant on electricity and as electricity prices keep going up, if you are in a position to be more efficient, you will be insulated or more insulated from those.

Thirdly, it's an opportunity to demonstrate leadership. We have seen across companies that we've worked with a lot of excitement internally from employees who are excited about working for companies who are looking to be greener. Particularly, communities are also interested in partnering with or featuring more prominently businesses in their localities who are taking steps to reduce their GHG emissions.

And I just want to also reiterate too one more time, you'll hear words like GHG emissions, which we are going to use for purposes of these trainings but

outside in the sort of non-technical speak, the word carbon footprint is often talked about, so it's OK to refer to it as your carbon footprint but it's good to have an understanding of what that means.

And fourthly, I think this is a really big one is anticipate customer demand. And actually let's go ahead to the next slide. We are seeing a lot of large and small companies beginning to ask their value chains or ask their suppliers to take steps to reduce their emissions. And I think what we're seeing too were things like the Wal-Mart scorecard and Procter & Gamble came out with a scorecard, and just by the very nature that GSA, the government procurement shop is asking suppliers to begin to think about how to reduce their emissions – this is huge.

And so by being able to anticipate customer demands and customer questions about what you're doing to reduce your emissions and measure them is going to put you in a much better position than your competitors.

So are there any questions on this area?

Maleka Greene: Well, there's a question that states, can you provide us with more case studies of companies having done carbon footprint analysis? Is there a website to read more about case studies and outcomes?

Verena Radulovic: Yes, that's a great question. Our website is where you can find out more about this information is epa.gov/climateleaders. So C-L-I-M-A-T-E and then leaders afterwards.

And when you go there, if you under Events, you'll notice some previous webinars. We featured a number of small businesses that have talked about the benefits to their company. We also have a whole section on case studies where you can see what companies, of all sizes, have been doing although those tend to be larger companies. So that is a good beginning resource if you want to get some juicy examples of companies that had some cost savings.

Alright. So let's go ahead and dive in into the basics of developing a greenhouse gas inventory.

As I mentioned earlier, a greenhouse gas inventory is going to list all of the emission sources that are associated with your activities and we're going to be using them according to standardized methods that the EPA has been using for eight years.

When you are developing your inventory, it's really important to include all of the sources that are within your operations. And here we say, all U.S. operations. We don't know if some of you on the phone may have international operations. We've targeted this pilot and we've targeted this training toward small and medium enterprises, many of which don't but there may be some of you who do.

The purposes of this pilot, we are only asking you to report your U.S. operations and all of the sources that would be responsible for the six greenhouse gas emissions. And don't worry, we'll explain to you how you can actually go about getting access to understanding those.

What I had shown you earlier at the first slide as well as the slide here, you'll notice two things – the Scope 1 emissions, which is your direct emission and your Scope 2 emissions, your indirect emissions from purchased electricity.

These two sets of emissions – things that you're responsible that you own and the emissions coming from that and your purchased electricity – are requirements of developing a comprehensive company-wide greenhouse gas inventory.

Now, some of you are not going to have a lot of direct or indirect emissions just because of the nature of your companies. For you guys, what we are providing is the option that you can also include what's called your Scope 3 emissions. So these are emissions over which are not within your organizational boundaries or control and oftentimes, people like to include business travel. If you have product transport, if you're using third party vendors to transport your products, you can include those emissions.

If any of you want to use offsets, which we'll get to at the very end, you can include that in your Scope 3 emissions and your employee travel and commuting.

For those of you that do have substantial direct and indirect emissions, you're also welcome to include these emissions and again, we'll go into more detail on next week's webinar where you actually see the calculator and how you can actually do the calculations for that.

Alright. There we go. So what facilities should you include? One of the most important things about developing a greenhouse gas inventory is first drawing the boundary around your company. And when we look at all different sizes of companies, different companies have different constraints.

So there's two different ways you can approach this, either from an equity share approach by ownership so if some of you own joint ventures or if some of own a lot of different other companies, you can use this approach and just include the percentage of your share with that company.

But I'm going to guess that for most of you, a control approach is a better approach for you. And under the control approach, you can either include everything that is within your company's financial control or you can include anything in your company's operational control.

For the most part, especially when we're working with SMEs, we would recommend doing an operational control approach. So what that means is anything that your company has the ability to control whether you own it or not. This would include if you have leased vehicles but you're responsible for buying the gasoline and operating the vehicle. This would include if you have office space that you may not own the office space but you have control over the electricity bills.

It could be if you have a forklift in your manufacturing facilities, if you have the ability to switch out the refrigerants in your facilities. So we recommend, for purposes of this pilot, that you try for an operational control approach first, but if that doesn't make sense for your company because either you have joint ventures and it's difficult to understand if you don't have operational control and you have a more of a financial control approach, then we can help you and welcome to you those approaches as well.

One question I get asked a lot through our Small Business Network here and we have 120 companies in our program and with all of you, we had about 180 now within this particular part of our program, how to handle leased offices or facilities? And I think for this one, it's something that you really need to go back and look at and ask yourself, do I have the ability to affect my usage of the facility?

So for example, if you're leasing office space and you do not have the ability to change out the lights if you've asked your landlord to sub-meter your floor and they won't do it, or if you don't even get an electricity bill that breaks down your emissions contribution, then we would probably advise you not to include that in your inventory because again, you don't have operational control over it.

In that case, we would encourage you to include various sources that are outside of the boundaries of your company on an optional basis so what I had pointed to in the earlier slide, which is known as Scope 3 emissions – things like your business travel, your employee commuting. And there is a way that we can help you account the leased facilities as a possibility but that's a stark example of when you would really want to be careful about including your leased offices or facilities.

That being said, on the flipside, if you do have any kind of ability to affect your operational control of that facility whether you can turn the lights off after people go home from work, if you can use more energy-efficient computers, if you can sub-meter your use of a space, then that's great and we encourage you to include that in your inventories.

OK. So here's where we get to translating what sources you have in your company that actually emit greenhouse gases, and so what you're going to do is you're going to take the information from these sources and it's going to give you data. And then in two weeks on the 15th, we're going to show you how that data converts into greenhouse gas emissions.

There's an emission factor and for any of you who are frightened by Math, you're talking to someone who's not very great at Math and this is definitely

something that's doable. The resources and tools are out there for you so don't be frightened by it.

But these are the sources that you're going to look at and determine whether or not you have – once you've determined that you have control over them, you're going to extract the data from them.

The first one is stationary combustion of fossil fuel. Basically, that's your natural gas usage. That's – if you've got a boiler onsite, if you have, for the second bullet, process emissions. We talk often to welders or certain kinds of manufacturers that might have a lot of onsite manufacturing where they will be releasing emissions there.

Mobile sources is a fancy way of saying vehicles. So if you've got pickup trucks, if you got trucks, if you got cars, forklifts inside the facility, if you're more of an office-based organization and you have a company car, this is what you would include.

For your refrigeration and your air-conditioning, you would also include that and there are ways that we will show you in two weeks, how you estimate the emissions from your refrigeration. I didn't know this but all of the refrigeration packets that you purchased tells you exactly what the gas is and it's very easy to then translate that into what the greenhouse gas emissions from that gas are.

If we look at kind of these first four bullets, that's going to encompass what we talked about as your direct emissions or your Scope 1 emissions. And again, I'm going to start to use those words a bit interchangeably because some of the guidance that you see that's out there, sometimes those words are common. So remember, direct emissions are Scope 1; indirect from purchased electricity is Scope 2, and your indirect emissions that lie outside of your organizational boundary is called your Scope 3.

So after refrigeration, you've got your purchased electricity or steam and often, this is sometimes the easiest information to gather – it's your electricity bills and you can look at what your kilowatt hour usage per month is, and that's a huge part of most companies' greenhouse gas emissions inventories.

Other sources, it depends on what kind of company you are. You might have a backup generator. I don't know if any of you have corporate aircraft but if you do, you would include that and any other fuel for heating or wastewater treatment or anything else that we may not have included already. And then I would say, look at your inventory, see what you got and then see if you want to include some of your optional sources such as your business travel.

I'm just looking to Maleka to see if I should answer any questions before I go forward. OK.

Maleka Greene: Go ahead.

Verena Radulovic: All right. So now, what we talked about so far is we've gone over what are greenhouse gas emissions, what is an inventory, what sources should you include, how do you draw your line, if you will, or your boundary around your organization to figure out what fits within that boundary? And now we come to what is the base year, and after we define that, what should it be.

For purposes of this particular pilot, and this is coming off of the Climate Leaders program as well as a requirement that we had for companies in our programs. The base year is the calendar year where you're collecting data for your greenhouse gas inventory. So for this pilot, your base year is going to reflect data from the 2010 calendar year from January until December 2010.

And the reason why a base year is really important is because if you're setting a goal or if you want to measure your progress over time, which is what a lot of companies are doing and what, you can't manage what you can't measure but once you've measured it, you need to be able to sort of progress against it. A base year is your reference point and it shows you how you're doing.

One of the things that for some of you who may have done some background reading, a base year doesn't always have to be a calendar year, but for purposes of this pilot and for purposes of this program, it is a lot easier if you do it by calendar year and we find that a large percentage of companies who do their reporting do it on a calendar year basis to avoid any confusion.

One of the questions I'm going to jump a little bit to sort of thinking ahead, so I get a lot of questions about what do I do if next year I sell part of my company or what do I do if I lease another office space, how does that affect my base year.

And you're really only recalculate your base year if you've bought or sold off some of your assets because if you bought another company and it's merged with yours, then your emissions jump – they get really big overnight, and so it's not an accurate reflection of the overall reductions that your company would make. On the backend, you back-calculate what the emissions would be for the base year had that company been there in the first place.

And the same thing goes for if you actually sell off part of your company. Your emissions would go down very, very dramatically but not be reflective of you actually making reductions. So again, you go back and you calculate the base year to be as if that part of your company were already not there.

But I think a more common question is what if I just have a really good year and I'm just producing more goods and services, that's what we call organic growth and no, you would not recalculate your base year then.

So for the purposes of this pilot, what we're trying to do is really just get you started, do your base year this year for 2010, we'll get into the goal setting component towards the end of this webinar, but you'll see where the opportunities lie to begin to make those emissions reductions. And if you are in a position where you have to readjust your base year, there will be assistance for you.

Maleka Greene: Question, base year. What if you move mid-2010 to a new office?

Verena Radulovic: If you move to a new office, this is a great question and we get this and it's been one of the more difficult ones that we've gotten within the program. And we're going to have an additional technical support next week on the call in two weeks. And so if I misspeak, then my contractor can let me know and we'll go ahead and revise it next week.

But here's the thing, what you would do is if you're moving office spaces, you would calculate the emissions from the first half of the year in your old office and the emissions going forward in a new office. And I think it's because in that case, if you were to pretend that you had lived in a new space the whole year, well, let's pretend the person that lived there before you or leased the space before you was really, really heavy emitter like really didn't take any steps to be energy-efficient but you have been taking steps to be energy-efficient in your old space. We don't want to create confusion there. So that would be the recommendation going forward.

One of the pieces of your inventory, which we'll get to towards the end of this presentation is an inventory management plan, which lays out all of the activities that you do and it would account for that. So that's definitely something that's manageable. It's a question we get a lot and it should not be a barrier to developing your inventory.

So I'm going to walk you through where to get extra information on our website but basically, before I do that, I mean, that's really it. I mean, it's about understanding what an inventory is, understanding where those six gases are coming from, drawing the boundary around your organization to know what to include and then looking at those key sources that produce greenhouse gas emissions, aggregating the data from it and we will provide you with the tools and information that will translate that data into greenhouse gas emissions. And there you've got your inventories for 2010.

So the first set of tools that I want to point to, which you see on the screen, you can get there via the website at the top. This is the page for small and medium-sized businesses as to the steps that they should do to develop their inventory.

Alright. So that first resource that you saw on that page was our guide to greenhouse gas management for small businesses and low emitters to get started. The information that is in this guide is going to, by and large, be a repetition of what we just went over but may have more detail for you or if you want to go over a particular section, this is where you really want to get started. So please read this before you attempt to build your inventory.

There are other tools that we have in our website that are not just limited to the small business page. I have listed the link here at the bottom of the slide and we have a lot of guidance really specific to things like calculating your emissions from your purchased electricity, calculating your emissions from your vehicles, how to even estimate your emissions from your employee commuting.

So once you've drawn your boundary, assessed how you're going to calculate your sources, we have additional guidance that dives really deep into providing you with the right information.

Next slide please.

OK. One of the things that Maleka is going to talk about is those of you that are participating in this pilot are going to have access to a helpdesk that is specific to you and specific to help you develop your inventory. Because this is a partnership that EPA is doing with GSA, as part of EPA's commitment to the broader public, we have for the next nine or ten months in place an online technical support that you can use in addition to any of the help that you have from GSA.

And what we've done over the past couple of months, we've been monitoring this and we do get some really good questions come in and usually within three to five business days, you will receive an answer for your particular question. So don't be shy in using this. It's an extra resource that you can use if you need it.

OK. This is a calculator that we're going to do a walkthrough on in two weeks. But just to familiarize yourself with it, if you want to go ahead and do a dry run before we get started next week, it's a calculator that is on our website. It's on that general resource page. It's free. It's Excel-based and it automatically calculates your overall carbon footprint from all of your greenhouse gas emission sources.

Now, it may look a little clunky at first but don't be intimidated by it because each of the tabs that are on this Excel spreadsheet are intended to walk you

through how to enter the data that you're collecting from your sources. So things like how many kilowatt hours from your electricity bills or how many miles on your vehicle, what was the model make of your vehicle year. All of these are things we're going to go through in two weeks but this is a tool that you will primarily be using to develop the greenhouse gas inventories and it calculates automatically for you.

OK. Now, step 3 is really important and it's something that you're going to be doing over the course of this year as you are developing your inventory in parallel. It's called an inventory management plan, and what it does is it documents your company's process standard operating procedures for how you went about collecting the data to develop your inventory.

It's probably our most simple document and it's one of the things that companies have told us over the years of being in our program has been one of the single most helpful pieces of information they've had to put together.

What it does is it basically lays out in writing how you went about developing your inventory, what sources you included. And by doing that, it institutionalizes the process often for companies. It increases accuracy and transparency because let's say that you're the primary person responsible for collecting the data but you get a better job in a year or two and somebody else has to come in and fill your shoes, how do they do that? If there's any written procedures in place for how your company collected the data, it really reduces the ramp-up time to get that new person started.

In addition, it can actually help streamline how your company looks at and assesses data that can potentially translate to continuous improvement or even documentation of capital savings in other parts of the company.

So again, this particular Word document; it's a template. It is already available on our website, and on that main page where all of these other resources are listed, you can download it for free as well from there.

Next slide please. Oh, are there any questions or...

Maleka Greene: I think we're going to have to wait and see.

Verena Radulovic: OK. We're waiting. I think a lot of you have questions, OK.

So let's go toward setting your greenhouse gas reduction goal. One of the things that we've done over the last couple of years with our program is a two-pronged approach – one is working with companies to help them really understand and measure their greenhouse gas inventory so they can manage their emissions most effectively. But the second component which I think is even more exciting is getting companies to commit to reducing their greenhouse gas emission through setting public goals.

And I would say in the last 12 to 18 months, we've really seen a lot more businesses who want to do this. And a lot of large companies are beginning to ask their suppliers not only to measure their greenhouse gas emissions but also to set public reduction goals themselves.

So we worked with GSA. And within a year of joining, so I guess, by September 2011, your company must set a goal and the goal can be, I guess, I'll lay it out for you. The minimum goal is to reduce your total emissions by two percent achieved in two years or less – so that's at a minimum. The pilot is going to go until – unless you're going to walk through pilot timelines, but essentially, they're going to be doing an inventory for 2010, for 2011, 2012 and the pilot will go into 2013.

So by that time, by the end of 2012 from where you are today, we are asking you to set a goal to reduce your emissions by, at minimum, two percent. Now, if you develop your inventory soon and you say, "You know actually, I can make even bigger reductions." We strongly encourage you to set a more aggressive goal if you want to but you don't have to. So two percent achieved in two years or better.

The second option I put there because for some of you, depending on what your emissions profile is, some of you may want to set what's called carbon neutral or net zero goals, and you're welcome to do that. What you have to do there is become carbon neutral in 2011 and 2012 – so keep it for 2011 and 2012.

What's going to happen going forward once you set your goals, you're going to submit it to the website – the email address on this slide, climateleaders@epa.gov, and your goal is going to read as follows, “Company X pledges to reduce total U.S. greenhouse emission by two percent from 2010 to 2012.”

I'm going to very briefly explain why I'm emphasizing the word total emissions and we can go ahead and I know there are going to be questions about this at the end.

But basically, there are two kinds of goals out there and they both are good for different reasons.

One is called an absolute reduction goal or where you would have total – a total reduction in emissions where you have a baseline which this year would be 2010 and then from that baseline, you must reduce two percent no matter what – no matter if you have a great year, you have a lot of organic growth or you if you have not such a great year and you have some organic decline. But the idea is to on a net basis, take greenhouse gas emissions out of the atmosphere and prevent them from growing.

The second kind of goal is a goal that we see a lot of companies also setting and it's a great goal to get started for different kinds of companies and it's called an intensity-based goal or normalized goal.

And that goal looks at an efficiency per unit – so efficiency per product produced or efficiency per square foot of your facility. So it's an efficiency measure which is great, but it doesn't necessarily reduce greenhouse gas emissions from the atmosphere.

So you can be growing your company and growing your emissions but you can be really efficient per unit which is great again. But for purposes of this pilot and as our program had decided about a year ago to move forward, leading companies these days are setting absolute reduction goals.

And what we find is that for many, many companies, one percent per year is very, very achievable. So we set a goal that we thought was reasonable, that

we thought was reasonably aggressive that we also thought was achievable. So please before you balk at the two percent in two years, know that there is a lot of opportunity to make reductions again depending on how you develop your inventory.

I'm going to end before we take questions with the GSA pilot requirements, and Maleka, did you want to jump in or did you want me to...

Maleka Greene: I'll jump in there.

Verena Radulovic: OK. So basically, what's going to happen is as follows. From this point forward, we're now in year one, by September 30, 2011, you are going to have to submit a base companywide – I put corporate-wide in parenthesis so I know that not all companies are corporations – but essentially, a companywide greenhouse gas inventory, your inventory management plan, which is that Word document I'll just show you at the end, and state your emissions reduction goals.

I have here listed that it's recommended that you develop your inventories by the spring because as soon as you develop your inventory, the more time you have to set and reach your goal.

I should also state that if you have all the data that you need, it really shouldn't take you that long to do your inventory. It might take you a week but I don't think it will take you months.

So we've given you a lot of time to do your inventory until September 30, but realistically, if you have all of your 2010 data by February or March, it should be feasible for you to do your inventory by spring or even summer.

Again, your base year inventory data must be from calendar year 2010, that's January to December this year, and again, your reduction goals must be an absolute greenhouse gas reduction goal of two percent in two years or better.

And for those of you who are interested in setting carbon neutral goals, you must be carbon neutral for 2011 and 2012. And there is a lot of further guidance if you want to go that route, purchasing renewable energy

certificates or offsets to get you there. So that's definitely an option and we definitely have guidance to help you do that.

But I would imagine that for a lot of you on the phone who are very new to greenhouse gas management and doing your greenhouse gas inventory, my recommendation might be to first see what your inventory tells you, see where you can make the reductions and set a percentage goal if that would be viable for you.

OK. So then we'll move into year two, and we're operating – it's funny, we were asking you for a calendar year inventory but we're operating off of the federal government's fiscal year, but you'll see why the timing works out really well to do it this way.

So what you're going to do is submit your greenhouse gas inventory for next year, calendar year 2011, by September 30, 2012. You'll have nine months to do your second year inventory.

And when I say here you're tracking progress to reducing your greenhouse gas reduction goal, that's an opportunity for you to see how you're doing from month to month, from every six months, every eight months how are you doing towards your goal.

So then we're into year three where you do from January until December 2012, and then by September 30, 2013, we're going to ask that you also submit your GHG inventory. Then notice here, it says, "Submit your third-party assured greenhouse gas inventory."

We are going to work with you and provide you with more guidance on what that means but essentially, your inventories for the last year of the pilot are going to be reviewed by a third party assurance provider.

One of the things that Climate Leaders at EPA did this year, and we are sharing these results with GSA, is looking at what are some really viable options to create third party assurance for small businesses that want to get their greenhouse gas inventories looked at by a third party, how can we create

a mechanism that is scalable, affordable, and viable so that smaller companies have access to good greenhouse gas assurance services,

Maleka Greene: Verena, I wanted to add to that, I did want to let everyone know or remind everyone that for year three, we will be providing third party assurance services so you all will not be responsible for choosing a third party assesor or having to pay for that service out of pocket.

Verena Radulovic: Yes. And then I guess and then actually, Maleka, I'll turn it back over to your because the recognition for your accomplishments, once that comes through in September, you will be recognized for your achievements in fall or winter of 2013.

Maleka Greene: Yes. We haven't worked out all of the details in terms of recognition but we would like to recognize all of the companies that achieve their goal or surpass their goal.

Verena Radulovic: And one of the things too is that you are actually receiving kudos and recognition from the federal government already because once you commit your greenhouse gas reduction goal, it goes on EPA's website.

And I should also state that you don't have to wait to finish your inventory to set your goal. If you already know that you want to set a certain percentage for your goal or you already know that you're going to do two percent in two years, you're welcome to go ahead and submit that before you complete your inventory.

So I know we've got a lot of questions. I also wanted to say that we are joined by my colleague, Melissa Donnelly, who is another one of our greenhouse gas inventory experts here at EPA and we are here to provide you with assistance.

Melissa Donnelly: I can go over a few of the questions that we have here and Verena, feel free to jump in. There is a question that's pretty specific about having employees working from home and how you would account that in your GHG inventory whether you would try to account for their emissions that they are using at home.

And I don't know if you want to try to answer that now or try to wait until the next session where we'll get into some more of the technical details of your inventory.

Verena Radulovic: Yes. I mean I think we'll get into that next two weeks, but I would say that again, it depends on how your company draws its boundary. That to me sounds a lot like an optional emission, whereas it is very much attributed to the company, it's not actually something that the company can really operate or own, if you will.

So that to me sounds like if the employee could parse out what the kilowatt hour usage is specifically related to his or her work then yes, then I think it would make sense to include it in your inventory but probably more under your optional emissions or your Scope 3 emissions.

Melissa Donnelly: Thanks, Verena.

There is also a question about standards for what is that good GHG inventory for a specific business and a specific industry. So I think that could be interpreted a few different ways.

Verena Radulovic: Yes.

Melissa Donnelly: But I think for our purposes, using our standards, the inventory would always be comprehensive as long as you're adhering to those standards and then whether or not you would want to compare yourself to another business in your sector is sort of a different question.

Verena Radulovic: Yes. Just to add to that, there is a corporate-wide greenhouse gas accounting standard that EPA bases its program off of and it's called the WRI, which stands for World Resources Institute, GHG protocol. And if you go to ghgprotocol.org, again that's ghgprotocol.org, you'll see that standard and that was developed eight years ago.

There's also an international standard that is harmonized to some degree to that standard called ISO14064. And so when we look at what does it mean to

develop a comprehensive greenhouse gas inventory, all different kinds of industries can adhere to those standards.

Now, it's going to look a little bit different, you know, when an office-based company or company that is a retailer is going to have a very different emissions profile and possibly even control approach or different sources than a cement manufacturer or pharmaceutical company, but the principles behind the accounting remain the same.

So I think when we look at even making comparisons within the sector, be really careful when you do that because – just because one company is in the same sector with you, they may have completely different financial control or operational control over their sources.

They may also be at a different starting point than you are. So if your emissions goal doesn't look as aggressive as theirs, it's not necessarily that they've done more than you. It's just that, you know, you might be at different starting points.

So comparability is really something to caution against because it's really difficult to know what the other company has done. Instead, I think it's better to be transparent about your process—what sources you've included and also there's a bigger push towards looking at not necessarily the number associated with the company, the number of carbon dioxide emissions, but more about qualitatively, well, what are you doing to reduce that number. So nobody is penalized for a big number necessarily. So this is something to take into consideration.

Melissa Donnelly: Thanks, Verena.

Another question is about calculations, and when you're looking at perhaps the home office then you have other branches that you do separate calculations for each, and again, this maybe a question that would be better answered in a couple weeks when we get into more of the details where you'll understand how you're collecting all of this data and then how you're moving through different calculations depending on whether you're looking at direct sources of emissions, indirect sources of emissions or potentially optional

sources of emissions. So those calculations, I think, will become much clearer in how you define them as you start to get into the spreadsheets and collecting the data that you're looking at.

Verena Radulovic: I agree with Melissa. I think that it's good to start off with granular data but it will become more apparent when we walk you through the calculator.

Melissa Donnelly: Great. There is also a question here about reporting the information and whether there is some set of checks and balances. And I think this question is getting at how can you really be sure that the inventory that you're putting forward is accurate and that has been verified.

So maybe if you could talk a little bit more about the reporting process and how companies can feel sure that everyone involved in this pilot and this process is putting forth their best effort to report on their emissions?

Verena Radulovic: OK. I'll take the first part. This is Verena.

So one of the things that the way that we structure this pilot is to test out the feasibility of smaller companies really developing their inventories that are robust and that are accurate.

And, you know, everyone is going to make mistakes at first and it's totally normal to do that. And there is a tension, there is a balance between wanting to do something that is really detailed and comprehensive and also making sure that it is accurate.

For purposes of this pilot, we really encourage you to make use of the helpdesks because those are where you're going to be able to troubleshoot your problems early on. Your report to EPA, generally, what we do at EPA is we do a scan to make sure that there aren't any glaring discrepancies or that the control approach makes sense.

When smaller companies have submitted their inventories, we have caught areas where we say, "Hey, actually, you need to go back and fix this part." Well, the purpose of the third party assurance in the pilot is to catch some of those mistakes and to make sure that those mistakes are improved.

And as I've mentioned earlier, when we were testing what's viable and affordable third party assurance option that in this case, GSA is going to pay for, but in the couple of years once the training wheels are off, what is the system in place that for you as a company to feel good about getting third party assurance every year that is affordable and viable and not onerous on your company.

Maleka Greene: Just to piggyback on what Verena said, I would encourage you to lean on the helpdesk. You will have access to GSA's helpdesk in a few weeks that will be dedicated to you as a pilot participant but you also have access to EPA's technical assistance. So you will have both and, you know, you're welcome to use both or use one or whatever.

And again, the assurance process during the third year is to really determine if you have been doing things correctly and if you have actually reached your goal. So you will have those checks and balances at the end.

Melissa Donnelly: Thank you. Let's see. There's a good question here about achieving the two percent reduction that you're requesting. If the participants are unable to achieve this reduction, how would that affect their participation in the pilot?

Maleka Greene: I'll answer that. This is Maleka. It wouldn't affect your participation in the pilot. You just wouldn't be recognized in terms of achieving the two percent reduction goal.

Of course, you'll still receive recognition for participating but in terms of the reduction goal, that's the whole point of the assurance at the end. It's to see who actually was able to achieve the goal.

Melissa Donnelly: Great. Thank you. So there is a question here about verification and whether or not it's required for this program and the expenses that might be attached to that verification.

Maleka Greene: You will receive third party assurance services during the third year and none of the cost will be on you. As part of this pilot, GSA is taking on all of the cost for the third-party assurance for this pilot.

Melissa Donnelly: OK. Let me just look through a few more of these questions that have just come in.

Related to the question that was just asked, there is also a question here about if a company has already had a third party verify their inventory, would they be reimbursed for that if they have done it in the third year?

Maleka Greene: Not quite sure if I understand the question, but I'm assuming you're asking if you do third party assurance for the previous two-year inventories. And the answer to that would be no. As part of this pilot, we will only pay for third party assurance during the third year.

Melissa Donnelly: Great. Thank you. There is also a question here about if there is a space that you leased and you don't have control of it but you might have control of the vehicles that are working out of that space. How would you sort of address that?

Verena Radulovic: Yes. Good question. Yes, so vehicles and leased space are all part of your inventory but you calculate them separately. So if you have operational control over those vehicles that are attached to that space then yes, you would include them meaning that if you control the amount of gasoline you put in them, you control how they're driven, how often you drive them. That is considered operational control. You would include that.

If the leased space where those vehicles are parked, you don't have control over it because you don't control any aspect of it then you would probably not include that in your inventory.

Although it gets a little complicated because you could include that as an optional source but I don't want to confuse the issue on the phone, but so just to keep things simple for today, just think, if you don't have operational control over it and you're using an operational control model approach then no, you would not include that leased space. But if you can control the vehicles, yes, include them.

Melissa Donnelly: Great. Thank you. There is also another question here that is asking about low-hanging fruit. And so basically as the companies in this pilot tried to work toward achieving their goals, are there resources available to them that will help them identify areas where they can try to reach that low-hanging fruit or see what other companies have already done and try to replicate some of those projects?

Verena Radulovic: Great question. I would say if you go under – again, under the Events and Webinars portion of our website, check out some of the recent Webinars from the smaller businesses.

One of the main things that we hear in terms of low-hanging fruit is actually not at all a technological change but it's behavior change of employees. And it's little things like turning off the toaster or turning off the lights or turning off the computers or employing energy efficiency measures in your computers.

It's things like that but again, one percent is not a lot, and if you can make those improvements based on behavior change, that would be the first line of defense. Just look around, understand where your emissions are coming from and, you know, unplug things over the weekend that don't need to be unplugged in.

The second thing that we hear often about is lighting is a big one. If you have the ability to change out your lighting that can make a huge impact. And one set of resources that I would really recommend and you can go onto the Climate Leaders website, again, that's epa.gov/climateleaders, there's a section on there on the homepage on other federal programs that can help you reduce your emissions.

The Energy Star program, particularly their resources for small business are excellent. And so it's everything from insulation or lighting or negotiating with your landlord if you want to try and get your landlord to help you reduce emissions, so I would first check out the Energy Star resources.

If you have fleets especially if you're using third party logistics providers to provide transportation, the SmartWay program provides a lot of really good resources there too.

And another program that I think would be really good to check out would be EPA's Green Power Partnership. And all of these are referenced on our website but they give you ideas for things that you can do that are easily accessible and that don't necessarily need a lot of capital investment.

Melissa Donnelly: Great. Thank you. There is also another question here about a company that may be working in a client facility and has made changes that would affect the energy use in that specific facility and would there be a way for them to track and report that.

And so that would probably come under understanding what operational control or control approach that you are choosing and then I think it will become clearer what facilities you would include and which ones you wouldn't include.

Verena Radulovic: That's right. Before you jump to figuring out what to include and what to reduce, you've got to draw your boundary around your company and figure out what control approach you're going to use and that's going to dictate a lot.

Melissa Donnelly: Great. There's also a question here about grants or maybe low interest loans that could help with cost. Are there any resources that you could give offhand for people to look to see if there's any kind of maybe local or government assistance that might help with some other projects that they might want to implement for energy efficiency?

Verena Radulovic: Yes, and it's a great question. Couple of things – one, check out what your local utility might offer. You might be really surprised that local utilities do sometimes offer rebate programs or other incentive programs if you are upgrading to energy efficient equipment.

We had an example of a printer that was participating in our program last year that talked about I think a rate of return pretty significant after she had put in some kind of a metering system that her utility had hooked her up to along

with some additional incentives. So one, check out what your local utility might offer particularly if your business has a commercial space.

Two, I know that the Small Business Administration is looking at this issue and SBA is considering loans for these types of projects. I don't know if that story come to fruition and I don't know if in the first year of this pilot, we will see any movement there. So stay stick with your local utility.

For those of you who have fleets or if you have trucks, they have a SmartWay Finance Center and it's I think access to loans or information on – if you're looking to upgrade your fleet or your trucks like I think access to capital to do that.

And again, I would check out the Energy Star website and there's another – to the utility one, there's the DSIRE – D-S-I-R-E, so again, D-S-I-R-E – and that may give you access to utility programs around the country.

Melissa Donnelly: Great. Well, I think that is the majority of the questions. There is one question here and just about developing your inventory and whether or not each company or each facility within the data that you're collecting would have its own inventory.

So just maybe a little explanation on the inventory as the overall final product that you are creating that will have all the data in it from all your different facilities, and yes, so that might have make it a little bit clearer that you're not creating separate documents but it's just you're creating this larger document that all this data will feed into.

Verena Radulovic: Exactly. Just to build on what Melissa said, you know, you hear a lot about carbon footprints or greenhouse gases at a facility level or carbon footprint of my Plant A or Office number five.

And that's all great, but we will look at what does it mean to have a comprehensive companywide greenhouse gas inventory. What that means is that it's basically the aggregation or the sum of all of your facilities' individual footprints kind of rolled up into a bigger companywide footprint.

So what we found through the Climate Leaders program is that it's much easier to look at it by source. So OK, where am I buying electricity? You know, how am I buying fuels?

But when you're doing those initial calculations, yes, you're going to enter in your individual facilities and you'll see that in two weeks when we actually walk you through the tool.

Maleka Greene: There's a question here in regards to services. The question is how do you measure GHG's services? And I think what you need to focus on is not necessarily the actual service since you're not manufacturing anything but your operation.

Verena Radulovic: Exactly, exactly. So if you're a service provider or a consultant or someone where you have primarily office-based emissions then what you're going to look at is, OK, does your company lease any vehicles, does your company have any operational control of the office space that it has?

And as I mentioned very early on in the presentation, there may be companies where your actual footprint is really small or you don't have a lot of operational control. And that's OK.

And in that case, what we would encourage you to do is to broaden out your inventory to include your optional or your Scope 3 emissions so that's going to be your employee commuting or your business travels – so your air travel, your rail travel, your bus travel.

And waste management is one of the things that you can include. So again, just to give you a sense of scale so that you sort of know where you may fall, we have worked with companies that have as low as 29 tons of emissions per year to 100 million tons of emissions per year. Very, very big corporations are going to have anywhere in the hundreds of thousands of tons to tens of millions of tons of emissions per year.

Most of the small companies that we have worked with tend to have less than 10,000 tons of emissions. The most popular profile is anywhere between a few dozen tons of emissions to probably about 3,000 or 4,000 tons of emissions.

So you're probably going to be under 10,000 tons if you're participating in this pilot.

Also one thing that I wanted to mention and I don't mean to sort of jump all the way back but there was a point in the slide that I wanted to also highlight and I hope it doesn't sound disruptive.

But we hear a lot about carbon dioxide emissions, carbon emissions, carbon footprint, but some of you may be wondering, OK, well, but there is methane and there is sulfur hexafluoride and there's, you know – those five other gases.

What happens when you develop a greenhouse gas inventory? And our calculator does it for you automatically. But what happens is that you assess all of your emissions from all of those six gases and then those other five gases get converted, if you will, into carbon dioxide currency or they get converted into carbon dioxide units so that your carbon footprint is actually your carbon dioxide equivalent.

I don't know if I explained it correctly, but basically, it's the sum of all of your greenhouse gas emissions that expressed as carbon dioxide. So something to understand is that when you're looking at your greenhouse gas inventory, you call it your carbon footprint, CO2 emissions, that tends to be that the more common way of describing it but the real more technical way of describing it would be it's all those six gases but they are expressed as the end result, they're expressed all in carbon dioxide equivalents.

Melissa Donnelly: I think that's the majority of the questions so I don't see any others coming in right now so, is there's any final thoughts that may...

Verena Radulovic: Maleka, do you have any other thoughts?

Maleka Greene: I just wanted to let everyone know that we are working to get the GSA helpdesk up and running. We hoped to have the contractor online on the 15th just to give you an overview of how the helpdesk will work and provide you with the toll-free number.

But as of right now, I don't have any other comments. I will say that if you would like to go ahead and get started with your inventory, you are free to do so. You don't necessarily have to wait until the next training.

I do think it's important but if you feel that you have a good understanding, you are more than welcome to get started and utilize EPA's helpdesk to get you on your way.

Verena Radulovic: And this is Verena, one thing that I would recommend that if you want to do between now and December 15, is just start collecting your electricity bills. For most of you, electricity bills, your natural gas bills and your vehicle mileage or gasoline usage is going to be the bulk of where you're going to be diving for your data.

And once you – and some of you may have billing cycles that start like in the middle of the month like, you know, the 15th, the 14th or something, go ahead and just collect then maybe towards the end of 2009, you'll collect into early 2011 and then, you know, you can estimate or you can work it out so that you can calculate what it would be from the calendar year.

But to start collecting those data points so that on the call on the 15th, if you've got any questions like, "I'm missing data," you know, "How do I go about estimating data?" Those are some of the questions that we can tackle for you.

Maleka Greene: Verena, we actually do have one question, and this question is in regards to charity. And the question is, can we count participation in charity events? We have been greening events in kind of with eco products. One of that, we donated \$6,000 worth of items to move zero waste at the events.

Verena Radulovic: That is a great question. My first thought would be anything that you do that is not within your corporate boundary is going to be considered Scope 3.

One thing that's really interesting and our accounting tool and methodology is not yet ready for this although there are standards that are under development that will come about in the next couple of months that can help you with this

calculation. But for purposes of this pilot, I would say to not necessarily include those emissions, and here is why.

What I think you're talking about is a movement for many companies both big and small to account for the greenhouse gas emissions associated with the services that they provide, the emissions associated with the products that they sell and that's really important.

But when we look at what it means to actually develop your greenhouse gas inventory for your own operations, this particular protocol, the standards, these tools are all intended for your own operations and not to account for the greenhouse gas emissions associated with your investments, with your charitable time, with your products.

However, the good news is that there is a standard underway, a sister standard to the one that was – is a basis for our program that will be finished in spring of 2011 and there's going to be a lot of excitement around it, and down the road, you will be able to use that standard to account for your broader activities. But again, just for purposes of this pilot, I know it's tempting but the tools and the approach are not situated to calculate that.

Melissa Donnelly: I think one final question just to be clear on this point, there is a question again about whether if you have a home office, how you would divide those utility bills? And so that would be treated maybe similar to a facility that you might not own but you lease for that facility. So again, we'll get into these details in the next session.

Yes but just to kind of highlight that, if you wanted to include a home office, you would have to try to figure out what your electricity use is for the specific work that you're doing in your home office not your entire home so.

Verena Radulovic: That's right. Exactly. And again, it comes down to that operational control approach. Is your employee just working from home, and if he or she, you know, use that as partial office space throughout the week but you don't actually have operational control over that or is your home your office?

And if that's the case then yes, you do have operational control over it as a company, as an entity, and Melissa stated, you would have to figure out what the emissions are associated or the energy use associated with your activities for work.

So that's actually really good. So on the 15th, we'll try and have some deeper explanations of that.

Maleka Greene: I think that's it.

Verena Radulovic: Great. Thank you so much everyone for participating. We appreciate it.

Maleka Greene: Well, thank you everyone. This is Maleka Greene. I'd like to thank everyone for calling in today. We really appreciate you all taking the time to do this so that we can get started with the pilot and you can get started with your inventory.

So I look forward to speaking to everyone again on the 15th. If you have any technical questions in the meantime, yes, you can give me a call – this is Maleka Greene – or you can give Verena a call or you could go ahead and start using the helpdesk if you are asking technical questions to get started with your inventory. So I will send an email to wrap up the call with my information and Verena's information just in case you have some more questions.

Verena Radulovic: Yes. That's a really good point. If you have burning questions that you want to have answered, it might be good to send us those questions in advance so we know to anticipate them and we can build them into the training.

Maleka Greene: Absolutely. Thank you, everyone.

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