

Bethlehem Climate Action Plan

Public Meeting #1: Community Objectives

Session 2: 5:30pm – 7:00pm, June 17, 2020

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Meeting transcript:

0:06

Welcome, everybody.

0:07

We're just getting started here, and we'll be getting started in a moment just giving folks a few more minutes to sign in here.

0:16

So, it will be starting just after 5 30.

1:14

Alright, it's a, it's 5 30, we're going to begin the presentation. So, welcome, everyone, to the first public meeting on the Bethlehem Climate Action Plan. This is the second session of today's meeting. We had an earlier session at 12 0 PM, and if you attended that meeting, just a reminder that today's 5 30 PM meeting will cover the same content. And so we look forward to getting a ton of feedback on today's webinar. Today's webinar is gonna focus on getting input on the community's objectives for the climate action plan. And we'll talk a little bit about the agenda in just a moment. If you move to the next slide, but my name is Jeff Ervin.

1:55

I worked for WSP, I'm joined by my colleagues, Katie ..., from the Nurture Nature Center, and Matt Doerner from the city's public Works Department.

2:05

So, on today's webinar first, we're going to address why the city is developing a climate action plan. We're going to talk a little bit about the, what climate change is, how it's working, and what the projected impacts are for the Lehigh Valley and Pennsylvania, more broadly, Both the current impacts of climate change, as well as future predicted impacts. Then, we're going to talk about what a climate action plan is and how that will help to address some of the impacts projected from climate change for the Lehigh Valley. And then we're going to talk about the logistics of this, of this engagement and the development of the plan. Including the schedule and how you can stay involved and provide input throughout the process, as we develop this plan over the course of 2020. And to that point, we're going to be asking a number of poll questions, and allowing for discussion at the second half of the webinar.

2:57

And we have a number of questions prepared there, but as we move through the webinar, keep in mind that you can ask questions through the chat function, goto Webinar And we'll be keeping track of those questions and trying to answer as many as we can throughout the webinar. And you can also, as we get to the discussion phase, raise use the raise your hand feature, in order to

be called on if you have a comment that you'd like to make. But please save those for that last section, that community input and discussion section.

3:28

So before we get into those, I just want to hand it off to, to Matt with the City to provide a welcome and an introduction and talk a little bit about what the city has done to date to address climate change.

3:40

OK, thank you Jeff, hello everyone. I'm Matt Dorner, Deputy Director of Public works for the City of Bethlehem. And on behalf of Mayor ...

3:47

City Council, Councilmen rentals, and Public Works director Mike alkyl. I'd like to thank all of you for joining us today for our first public meeting on development of our City of Bethlehem Climate Action Plan. You know you all have a lot going on right now. And we appreciate you giving us some of your valuable time today. This is not something the city can do alone, so, we sincerely need your input and help.

4:08

The city took its first step in the process and signed on with the compact mayors, along with several other climate protection commitments.

4:16

We've been calculating our greenhouse gas emissions for municipal operations for the last 15 years. We've also made a lot of changes and improvements to reduce those emissions. I'd like to talk about those. Some of that progress right now.

4:31

So energy efficiency and conservation efforts undertaken by the city include LED conversions of all our traffic signals and non decorative streetlights improvements to city equipment and facilities, such as installing more efficient boilers, chillers, cooling towers, windows, and lighting.

4:50

At our water filtration and wastewater treatment facilities, we've made efficiency improvements that include installation of variable frequency drives on pumps.

5:00

We use biogas generated by the waste treatment to run boilers, and the ordering of sludge to reduce trucking for disposal.

5:09

In recent years the city has been purchasing 50% of our electricity from green renewable sources.

5:16

Then in 20 18 we moved to purchasing 100% of our electricity from these greater Ruble sources.

5:23

Through these efforts, we have reduced the greenhouse gas emissions from our municipal operations by 37% since 2005.

5:31

As part of the climate action plan we're talking about today, we'll come up with ways to further reduce those emissions.

5:38

And besides our municipal operations, the other component of the puzzle is community-wide Greenhouse gas Emissions. In that regard, we've made some improvements over recent years, as well.

5:48

In 2017 and 2018, we collected about 14,000 tons of recyclables, each year and last year in 2019, we collect over 15,000 tons of recyclables.

6:00

This reduces the amount of waste we sent to landfills and reduces greenhouse gas production. We continue to work to increase recyclable collection each year through education and advertising.

6:12

Transportation is another large generator of greenhouse gas emissions.

6:16

Trails promote walking and bicycling, Reduce the miles that vehicles travel, reduce greenhouse gas emissions, improve air quality, reduce traffic congestion, and improve safety for pedestrians and bicyclists.

6:29

We completed Phase four South Bethlehem Greenway a few years ago. And later this year, we're going to begin a connection of the Greenway Southside, Little League area of Central Park.

6:40

We also have grant to improvement accuracy way. And we're working on design of that right now.

6:47

Well planned communities with a balance of housing jobs, dropping schools, and recreation, can reduce the length and frequency of trips and give people the option of walking, biking, using transit rather than driving.

7:00

This results in lower greenhouse gas emissions, and also promote physical activity, more vibrant, healthy, and sustainable communities.

7:07

We continue to improve walkability and bike ability, and the city has recently received high scores on sidewalks from Lehigh Valley Planning Commission, Walk, LV Sidewalk Inventory.

7:19

Through planning and zoning regulations, development is guided, and the uses are balanced throughout the city.

7:26

So once again, thank you for participating. And now I'd like to turn it back over to WSP and Nurtured Nature, to continue our first Bethlehem Climate Action Public meeting.

7:37

Thank you, Matt. And before we move forward, I just wanted to note that I accidentally skipped over a slide and wanted to make the point that we will be speaking in English During this presentation, but we want to make sure that we're hearing from all Bethlehem residents as part of this climate action plan, consultation and community engagement process. And so if Spanish is your primary language, we wanted to let you know that we're going to be providing a Spanish language translation of the meeting here today after the fact.

8:07

And that'll be available up on the Climate Action Plan website, which is on the city website in the Public works section, but also accessible directly through the web URL, Bethlehem cap, CIP dot org. And we also have a Spanish language version of the community input Survey that is up there on that website. that's available in both English and Spanish, and we encourage you to fill out that survey to help provide more detailed input on the plan, if you have not done so already.

8:42

So, now I just wanted to introduce ourselves a little bit more and tell you about the development process and the team that has been put together here to help develop the climate action plan. For the city, As Matt mentioned, that, the city is leading this work and they have contracted WSP and the Nurture Nature Center to help develop the plan. Over the course of 2020. WSP is one of the world's leading environmental and engineering and professional services consulting firms. We have international scale, but we're dedicated locally and we have a office right here in Bethlehem where I work Chrome and some of my colleagues, who are working on the plan are based our office in Bethlehem is dedicated to Sustainability Energy and Climate Change. And then our partners at The Nurture Nature Center are based in Easton. They were founded in 2007 in the wake of flooding of the Delaware Delaware River Basin and have put together over the years a lot of great programming on flood risk and ...

9:42

education. And they've really broaden their offerings to include a whole slew of different offerings, from art to documentary films to gardening and science education. And it's really worth checking out their facility in East and if you haven't had the chance to do so. So we're really happy to have them as a partner in the Kapp Development process.

10:01

Then underneath the WSP and Nurture Nature logos on the slide here, you can see the logos of some of the institutions and organizations from Bethlehem and the greater Lehigh Valley that we've engaged. As part of this process, I want to thank Councilmen William Reynolds for helping to pull together this stakeholder group. These stakeholders represent the diversity of Bethlehem and many of its most important institutions and job creators.

10:27

And we really want to emphasize, that these stakeholders are going to be helping to develop the plan. But also they're going to be critical in implementing the plan. That, this is truly a community wide team effort. And that once the plan is developed, we're going to be using these partnerships to help move the ball forward And take climate action here in Bethlehem. And then, of course, are our most important stakeholder. Is you, the general public, Those on this webinar, and your friends and families. And so we encourage you to spread the word. We're looking for a lot of input here today, but this is just the beginning of the process. And we're gonna be hoping

to get a lot of public input and feedback on the plan as it's developed in the coming months. So thank you so much for taking time out of your evenings to join us today. We really appreciate it, and know that there's so much going on in the world, and your lives right now. I can't thank you enough for helping us develop this plan. So, you can go to the next slide, Kate.

11:24

So I'm going to hand off to Kate now to talk a little bit about why we're developing the Climate Action Plan. And specifically, she's going to provide some background on climate change And the projected impacts here in Bethlehem.

11:36

Hi, hi everybody. My name is Kate ... and I'm the Science Directorate Nature Center, and for those of you who are not as familiar with climate change, we wanted to give a brief primer. But if you're interested in learning more, because I certainly am not going to be comprehensive of everything you can feel free to reach out to me by e-mail.

11:58

I wanted to start off with just an overview of what climate is first weather Because a lot of people get this confused. Climate is the average conditions of a place for a long period of time. While whether it's something that can happen on a daily basis so I like to make the analogy of your wardrobe. So your wardrobe includes everything from your winter coat to the hat you wear in the summer to protect from the sun. But your wardrobe is gonna look different if you live in Arizona, versus if you live in Maine.

12:33

Now what you choose to wear on a day to day.

12:38

You're going to wear a rain jacket. That's whether your whole wardrobe is the climate, and then what you wear on a daily basis as weather.

12:46

Then if you look on the right of the screen, this is a bell curve that's showing temperatures, the probability of a temperature occurring, and on average, and most of the days are going to be there in the middle. Now, that doesn't mean you can't have an extremely hot day and are extremely cold day, So just because one day is, you know, out of what is normal does, not necessarily mean that that's attributable to climate change. However, when we talk about climate change, we're talking about the moving of that entire curve, so the average is moving up, it's getting warmer and thus, the extremes are more extreme there hotter. And we have less of those extreme cold. So you're seeing that progression in those graphs there, to the right.

13:39

Now, what have we seen globally? We've been increasing, this graph is showing the difference, it's anomaly. But it's the difference from an average and usually compared to the 20th century average. And you can see that we started off below, so those are the blue bars that are extending below zero degrees Celsius and more recently, the past several years have been read and well above. the zero line. And so this is just for April, for the last 141 years, where we've been keeping track of this false Noah and NASA separately. Keep track of it. And they say the same thing, and so this, April was about 1.9 degrees Fahrenheit above the 20th century average. I also wanted to show you this spatially, so, I'm going to pull up. this is called NASA as Climate Machine.

14:40

To work, here we go.

14:43

It's going to show, similarly, the temperatures from the beginning of the record period.

14:50

So the end of the 18 hundreds, all the way up until today, and you can see how the patterns are varying across the whole world. But in general they go from blues, which is below average all the way to red, which is above average. Now May, what's the planets? Planets, alarmist may on record and we keep breaking these records as we progress forward. So we're seeing these changes right now.

15:18

And then I'll also add a little bit because this is a global picture. But we can also take a look at what we're doing and more immediately share in Bethlehem. And so I'm just going to speed this up a little bit.

15:34

So you can see, as we get smart recent years, it's much warmer, especially up here in the Northern Hemisphere around the pole.

15:48

Now, there's a really great site, the Clan Explorer.

15:52

And if anybody's interested in these tools, please contact me, and I can share them with you. But this is neat, because you can put in your city and at all zoom into that. And then what is showing is, on the left is the 1961 to 1990 average. On the right is an emissions scenarios.

16:13

Submissions is how much carbon dioxide we're giving up, so you can change that to be higher or lower, but it's basically showing from 20, 20, all the way up to 29, and you can also modify the period that you're protecting for.

16:30

But this is for the average daily, maximum temperature that I'm showing. You can see how things are changing so it's going from about you know, between 50 and 60 degrees Fahrenheit average to being closer to 60 70 by the end of the century. And there's a number of different parameters that you can look at, here we can look at deals above 90 degrees Fahrenheit. And so again, we probably have close to 54,050 days above 90 degrees Fahrenheit, on average, but then in the future, it will be maybe closer to 80 or 90.

17:11

Can also look at this in a chat chart format.

17:18

Sorry, Megan, and it's a little slow, but it'll show this over time.

17:24

It's another good way of Visual? I think that's.

17:32

So the red line is the higher emissions. The blue line is lower. And then the shaded area around that is just the uncertainty that's associated with that.

17:40

So you can see this one, which is the days with a maximum above 90 degrees Fahrenheit. is change projected to change over time?

17:50

OK?

17:56

What have we observed specifically in Pennsylvania? The black line is showing the, again, the difference from average temperature, the red is showing our models, just based upon historical temperature records. And then the blue is showing our models, where we're considering just natural factors. And you can see that it is going up slightly. And this is from the Pennsylvania Climate Impact Assessment that was updated in 2015. And they recently updated sections on it, as well. So I encourage you to seek out that report if you want some more details.

18:32

Then, on the right, you're seeing the observed number of very cold nights, which is decreasing in recent years, and the observed number of warm nights. So these are days above 70 degrees Fahrenheit are increasing in recent years.

18:46

This is significant for human health because if you're above that 70 degrees Fahrenheit at nighttime, the body never gets the chance to cool down. And it can lead to heatstroke and other complications.

19:00

But it's not just temperature, that's changing, we've observed changes and heavy precipitation.

19:05

So the graph on the left is showing the changes in heavy precipitation across the US. And we've had an increase in the relative number of extreme events by almost 40% in the 2000 decade.

19:20

And then on the right, it's showing how the north-east is changing more significantly than the other parts of the country. So from 1958 to 2012, we've seen a 71% increase in heavy precipitation events.

19:37

This has implications for flooding, especially flash flooding.

19:41

Stormwater runoff, water quality issues. We're seeing this increase also in the annual precipitation that we're observing in Pennsylvania. So that's going up. You see that here on the left are getting more inches of rain over the whole year.

19:58

And then we're also seeing more extreme precipitation events switcher where you have precipitation that's greater than two inches. So that's also increasing. This is because there's more moisture in the atmosphere.

20:14

Now, this graph is showing a temperature change. What we observed is towards the left, that's that light, orange line. And the shaded area around it is just the uncertainty associated with it. And then, we have these emissions. So there's a higher emission scenario where it's business as usual, we don't take any actions to make any change to how much for contributing to the problem, changing our behavior. The lower emissions is if we do take action like Bethlehem has already done and continues to do.

20:50

And so just to show you that range of options, by the end of the century, we could be anywhere from 2 to 4 degrees Fahrenheit warmer than we were past century all the way up to 14 to 15 degrees Fahrenheit. Remember, this is an average, so it's not considering those who know at the end of those bell curves, where you have the extreme high temperatures.

21:14

So, in summary, here are just some of the changes that we've seen for Pennsylvania and are projecting forward.

21:21

We've seen a 1.8 degrees Fahrenheit increase in temperature since last century, and their projections that by mid century will be 5.4 degrees Fahrenheit warmer. Now, most people are like, I don't know what that means. If we put this in context, it means, basically that Philadelphia will be like Richmond, Virginia by the mid century and Pittsburgh will be similar to what Washington DC is now, that there will be more days with temperatures over 90 degrees Fahrenheit.

21:50

Now that increase, in average, precipitation, is increasing in spring and winter and not as much in summer and fall. So there's still the chance for drought.

22:03

However, that increase in winter is not necessarily ansel. This could be a change terrain of given the higher temperatures. So there's this increased risk of flooding, which adds to modern runoff and reduce water quality. Then, there's, of course, an increased probability that storms will have heavier rainfall, and the extreme rainfall events that aren't associated with storms will also increase.

22:31

So what are the causes of this? Why are we seeing these changes? one of the primary causes is carbon dioxide that's building up in the atmosphere. This is a greenhouse gas, that is colorless and odorless. You don't see it but it comes out of the tail pipe of your car. It's comes out of the power plants, generate electricity, and it builds up in the atmosphere. It stays in the atmosphere for roughly hundreds of years. There are other greenhouse gasses, like methane, that stays in the atmosphere for a shorter period of time on the order of decades, but the one that we've been tracking mostly is carbon dioxide, and this has an upper projection that pretty much mirrors our temperature increase.

23:16

To put this into context, if you look at the graph on the bottom, this is showing the highest historical carbon dioxide levels that faint dotted line at around 300 parts per billion million, which is how we measure in the atmosphere for the last 400,000 years.

23:33

And it's, you know, gone up and down, there is a natural carbon cycle, and it's never gone about 300. Now, once we really started ramping up human activity and burning fossil fuels, it's gone up very rapidly. So, one of the main concerns is that, we're having this rapid increase, and there's not a lot of time to adjust and, and re correct from this.

24:00

The graph at the top right is showing the past few years. It's just been a steady increase, and we're now above 410 parts per million.

24:14

So, how do we know that this is human cost?

24:17

This is showing all of the influences that could affect the temperature. So the black line is what we have observed and this is that difference from average and degrees Fahrenheit. And the upper left graph is showing the components that are related to unnatural influences. So solar, how much the solar, how much the Sun puts out, that will affect temperature, the orbital parameters on the Earth will affect the temperature. If we have volcanic activity. That's going to affect temperature. All of those together do not match the observed plan. So, we know that there are other factors, If we look at human factors, there's the greenhouse gasses. So the graph on the right, the very top line, it's in blue, is the greenhouse gasses, which includes carbon dioxide now.

25:07

There are other things that we do that affect temperature, how we have our land cover if we have force versus an urban setting, aerosols, This is air pollution can actually have a cooling effect on the temperature. And when we consider all of these together, it more closely approximates that observe line.

25:29

If we combine the natural and the human, it really does match that up, so fine. So we know that human activity is really driving a lot of this change.

25:41

So what does this mean for our water cycle? When you have a warmer air temperatures in the ocean warms up, it's going to evaporate more water. So areas that are drier that are dry already are going to have evaporation that drives them out even more.

25:57

And so you can have drought and wildfires there then areas that are wet or going to get wetter. Because once you evacuate the water that's there, they're super charging that water cycle and you're having more moisture in the atmosphere. Now, for every one degree Celsius of increase in air temperature, you have the atmosphere can hold about 7% more water.

26:20

And when you have more water in the atmosphere, you're gonna get changes to your air currents and weather patterns and more extreme precipitation events.

26:31

So this leads to more flooding or higher risk of flooding and those extreme weather events. That high category 4 or 5 hurricanes are fueled by warm oceans. There's the chance for more heat waves, respiratory death.

26:47

There's also a chance of increased disease and pests as they are able to move into areas that they hadn't been able to live before, because of the changes in climate. In Pennsylvania, in particular, we lead the nation in the number of lines related.

27:03

Yeah, Incidence had about 12,000 cases in 20 17, which was three times more than 2010, and this continues to increase, And there's some evidence that the increasing temperatures allow more text to survive the winter and increase the risk of spreading.

27:23

There's also disruption to agriculture systems. Cows don't produce as much milk when they're heat stressed. Certain crops such as apples need a certain amount of cold nights in order to complete their growth cycle and be able to fruit. And there's the list goes on and on.

27:42

There's also the possibility of an increase in mold and allergy causing Paul.

27:47

So, on the right is a graphic from the CDC, which outlines a number of different impacts, human health, related to climate change, and some of you may already be dealing with this yourself, asthma, respiratory, allergies, and the list goes on with things that could affect us based on the change in climate.

28:11

We do have the means to try to combat this problem. We have technology that we can rely on. There's many different types of behavioral changes we can undertake. There's no one solution, which is why the climate action plan is seeking to have a diversity of solutions to rely on. It could be anything from getting more renewable sources of energy, solar, and biofuels. It could be changing behaviors, such as supporting more public transportation are fuel efficiencies in cars, energy efficiency, and housing. And also capturing some of that carbon dioxide that's already.

28:52

And so, that's why we're here to develop this action plan. And the fact that we'll turn it over to Jeff.

29:01

Thanks, Kay. So, now that you all have a better sense of the science of climate change and some of the impacts that are projected for us here in the Lehigh Valley, I wanted to revisit some of the city's commitments to climate action that Matt talked about at the beginning of the webinar.

29:20

Bethlehem has a long history of acting on climate as a leader, and that goes back to 2006, when the city joined Easton and Allentown in signing the three City Proclamation, which signed on to the Mayor's Climate Protection Agreement, which basically committed the cities to trying to uphold. the US. Is commitment under the Kyoto Protocol, which was to reduce greenhouse gas emissions. And since then, the city has signed on to a number of other related pledges more recently. And that includes, we are still in and the Global Covenant of Mayors for Climate and Energy, which both commit the city to trying to uphold the US. Is commitment under the 2015 Paris Agreement for reducing greenhouse gasses. And then the city and the mayor have also

committed, and shown support for the 100% clean energy initiative of the Sierra Club and mayors for 100% clean energy. And so there's a long history here that we're hoping to build upon for the climate action plan. And now we're going to talk a little bit about what that plan is going to look like.

30:24

So broadly speaking, what is a climate action Plan? Climate Action Plan is a citywide comprehensive roadmap to achieve two broad goals. So this is to reduce greenhouse gas emissions that includes carbon dioxide and methane, and the gasses that Kate talked about that are causing climate change that are causing the, the world's temperatures to increase. And then also to increase our adaptive capacity and resilience to those changes here locally in Bethlehem.

30:51

Climate change is a global issue and a global challenge, and although we're going to try to do Bethlehem's part in reducing emissions, to really address climate change, global action is needed. And so, we need to be prepared here locally for some of those impacts, especially because, as Kate mentioned, some of those impacts are already starting to occur, and are already starting to cause harm, such as increased allergies and vulnerabilities, especially among Bethlehem's, most vulnerable residents. So, those are the two broad objectives of the plan. And I want to emphasize here that what we're developing is a roadmap. It's the start of the process, and not the finish line. So, the plan is going to include strategies to achieve these two broad goals of reducing emissions, and increasing our adaptive capacity, but where it recommends policies or changes to city ordinances, and other new programs, those will be a proposal.

31:45

And a roadmap, but they won't actually be the, the implementation, or include votes on, on those strategies, so that comes after the plan is released. And so really, wanna make that clear. And we'll talk a little bit more about what goes into those implementation next steps in a moment, but I want to highlight the additional benefits that come with achieving these broad goals. So, you know, you might ask, since climate change is a global challenge and that not just Bethlehem, but the US, and other countries abroad all need to reduce their emissions to, to reduce the impact of climate change. Now, why should we be taking action now? And you know, the answer isn't just that we should be doing our part. It's also that there are additional benefits that come from the strategies we're going to be including in this climate action plan. And we brawley characterize those co benefits into three categories. So their social co benefits and that can include health outcome. So better health outcomes resulting from less local air pollution and particulate emissions. It could be equity issues.

32:45

So, for example, people of color, immigrants, and low-income communities have historically borne the brunt of of pollution and some of the effects of climate change. And so one thing we hope to address with this plan is to reduce those disparities and help to increase the equity of outcomes, really, in the spirit of climate justice. Another character category of co benefit, is environmental benefits. And so that goes hand in hand with some of the health benefits that I talked about. But in addition to cleaner air, we could be looking at strategies that result in cleaner water, and more resilient, water supply, and a more resilient food supply, as well. And then lastly, we have economic benefits.

33:25

Many of the strategies to reduce greenhouse gas emissions involve putting new technologies out there, so solar panels, for example. And that can create jobs, and also create job training opportunities. And new industries and industries that are growing rapidly. The solar industry has been one of the fastest growing industries in the US over the last decade. That's only projected to continue and to increase as as more cities and jurisdictions across the country really looked to address climate through plans like this. So, if you move to the next slide, I'm going to talk a little bit about what Exactly it goes into achieving those goals within a climate action plan. So, as I mentioned, the plan itself is a roadmap, and implementation follows the release of the plan, so what's actually in the plan?

34:11

Well, we start with principals and principals are what are what informs our selection of actions and strategies, as well as the goals that we're putting forward in the plan. So, those principals might include things like equity that I talked about before, trying to reduce the disparity and impacts of local air pollution and climate impacts.

34:31

It could be principles of immediate action, recognizing the, the harms that are already occurring as a result of climate change, and really trying to prioritize immediate impacts. And it could be principles of cost savings, and providing savings to all of us who pay energy bills and have an energy burden. We're trying to reduce those costs, as well. So, those principles are something that we want to get your input on, both in this meeting, and also, in the coming weeks as we start to develop the plan. So, we'll come back to those a little bit more in the discussion section later. But what are the rest of the pieces of the plan? Well, we need a baseline in order to set a goal for reducing bethlehem's impact on climate change.

35:14

And that baseline is the city's community wide greenhouse gas inventory, Matt, talked a little bit about what city operations has done over the last 15 years to reduce their impact, but that that's just city owned and operated facilities. And vehicles. And so on. The community, as a whole, includes all the residents. All the businesses, all the manufacturing here, all the transportation, that goes through our borders. And that's what we've tried to quantify in the city's greenhouse gas inventory, but I'll talk about on the next slide. So, once we have that baseline of emissions, we know where we're starting from, and we can set a goal to reduce those emissions. And what we'll try to do is try to align with science, typically. So, so, goals are set using different principles that I know we talked about the principles as the first component, the plan. But, generally speaking, climate goals tried to align with the science that Kate talked about before, and reduce emissions corresponding to climate models that will reduce the harms, resulting from increasing temperatures.

36:15

Once we have a goal set in the plan, will develop a suite of actions and strategies to achieve those goals. So, reducing emissions sector by sector, and we'll talk about that a little bit more in a moment, But we'll have a suite of these measures and strategies that the city can implement. And, again, it will be a team effort. These aren't just actions the city government will take. It will involve businesses and, and local residents, and everybody in between. So, we need to, once we have those actions and strategies to find, to find what the next steps are, in terms of implementation as a roadmap.

36:47

But, the plan itself won't be an implementation document, but it will spell out the leaders of these initiatives and partnerships that can help move them forward once the plan is released. And then, lastly, the most important part of the plan is really the reporting and accountability section. So this ensures that the plan is dynamic, and can adjust over time, and that we're making sure we're achieving the progress we aim to set through our goals. So, reporting and accountability includes checking in to check on progress, and updating that emissions inventory over time, as well as setting and procedures, to adjust the plan as needed, if we're falling short of our goals.

37:26

So, if you move to the next slide, I'm going to talk a little bit more about that actions and strategies section in a moment, but I just want to highlight the current greenhouse gas inventory for community wide. And so this is going to serve as the city's baseline for citywide targets and goals related to the Climate Action Plan. The inventory is, is based on data that we get on electricity consumption, and natural gas consumption. Citywide, we can break it down by sector. So, that that, which occurs in the residential sector, the commercial sector, institutions, and government, and brawley, it breaks down, is that about 50% of the city's emissions occur from electricity consumption. So, you know, that's you turning on the lights in your house and your electric bill that you're getting every month. About a quarter of it comes from natural gas, which could be for your heating needs and for other fuel used for industrial purposes.

38:18

And then, about 20% or one fifth comes from transportation, which includes driving your car across town and includes riding the Atlanta busses and public transportation. And then the remainder about 10% or a little bit less is from waste and the decomposition of waste in landfills and other emissions associated with waste disposal.

38:39

So, that's the baseline that we're starting from, and these are the broad categories of emissions that we're going to be aiming to address through the plan.

38:48

Now, you can move to the next slide, And these are some of the categories of strategy areas that we're going to be including in the plan. The green ones up there are categories of sectors where we're going to be trying to reduce emissions, reduce some of the emissions in that baseline that I just talked through. And then the blue one is really important and it's quite expansive category of actions we can take to increase our adaptive capacity and to protect vulnerable populations within Bethlehem as well as our critical assets which includes transportation, infrastructure, power infrastructure and so on. Anything that could be vulnerable to these impacts that Kate talked about resulting from the increases in temperature, we're going to be assessing those and providing strategies to increase our resilience to those changes.

39:34

Now, to give a couple of examples of strat, strategies that might go into these categories, Buildings could include Energy Reduction Initiative, so, efficiency measures like switching to LED lights, Transportation might include increased access to public transportation, or increased access to electrical vehicle charging infrastructure. Waste includes diversion efforts, so increased recycling or waste reduction efforts. Electricity sourcing is a little bit different from buildings although buildings use electricity. Electricity sourcing deals with where our energy

and our electricity is coming from. So, currently, we have a mix of sources, including coal and natural gas, renewables, nuclear, and what we want to do is try to move that more towards a low carbon mix for our electricity.

40:23

Then the last two categories, there are actually quite important. Outreach. And Education is going to tie all of these other categories together. None of them will be successful without education of the public and businesses. And really letting everyone know how they can do their part and helped plan succeed for the whole community. And then lastly, land use and green space includes expanding our parks. Providing more trees and vegetation in Bethlehem, which provides a dual benefit. Vegetation and trees can sequester carbon, so actually remove it from the atmosphere. And they also provide resiliency benefits. So they can reduce local air temperatures by reducing an effect known as the urban heat island effect, which can increase temperature is in areas where there's a lot of concrete and and pavement. So trees and green space and parks help to mitigate that effect. And so, that's another area that we're going to be looking at.

41:14

Now, going into detail on what any one of these strategy areas will consist of. I'll provide an example on the next slide, on electricity sourcing.

41:25

So, an example action area component will consist of, first under electricity sourcing. or any of those other categories I just talked through, will set some sub goals. So the city may have an overall goal of reducing emissions, a certain percent, but we'll set some goals that will help us achieve that broader goals, such as, achieving 100% sourcing of renewable electricity in in Bethlehem.

41:48

And, in order to achieve that goal for electricity sourcing, will lay out some actions and strategies to get there. And the examples up here are just one of what will potentially be many strategies to achieve any given goal. The example I have up there is reduce the soft costs of rooftop rooftop solar and soft costs are basically just the permitting costs. And the paperwork and red tape that goes into putting rooftop solar on your house or business and soft costs are actually a surprising percent of the total cost of installing solar PV. And so, an example of a strategy we might implement would be to try to reduce those costs by adopting permitting best practices and streamlining permitting. And that would have the benefit of growing the solar industry here locally, which could create some jobs. So, we'll be identifying co benefits and other social environmental and economic impacts. that will result from these initiatives and then, we'll try to identify what the next step is to implement that strategy.

42:43

So, for example, to reduce soft costs, we may form a Task Force to streamline, permitting. These are all just examples, to illustrate. And there'll be many strategies like this in the plan.

42:55

You can move to the next slide.

43:00

So now that we've talked a little bit about what a climate action plan is, we want to give you some information about how to stay engaged in the process. And to start with, I'm going to talk through the schedule and approach that we have for the project. We've divided the plan

development process into two phases. The first is laying the foundation, and that's consisted of the first half of this year, really culminating with today's meetings, with the public. And that foundation land consists of developing and refining the greenhouse gas inventory that will serve as as the baseline and refining our assessment of climate hazards and vulnerabilities. That will inform our selection of strategies to increase resilience of the community. And so, additionally, we've also formed a stakeholder group that I talked about at the beginning of the webinar.

43:47

And that group, along with the public here, is going to help us as we move into phase two, which consists of developing the plan, starting with the development of the strategies that I just, I just talked about. We're going to have multiple public meetings in the plan development process coming up in the coming months starting. In the fall as we talk through some of the strategies and the targets that will go into the plan. We had wanted to hold these meetings in person about due to covert 19 and some of the social distancing requirements where we're doing it by the web but we're really looking for feedback on any ways we can reach the broader community. And those who may not have been reached by this webinar so far. So we'll talk about that as we get to the discussion section. But, but in the coming slides, we're also going to talk about how you can stay more engaged and involved beyond those two upcoming meetings.

44:41

So, next slide.

44:46

And, Kate, do you want to talk about those engagement opportunities?

44:52

Sure. Thank. So, as Jeff had mentioned, we had wanted to have the public outreach in person. But in lieu of that, we have a couple of different options for you to stay involved.

45:06

We have a website, ... dot org that you can check for updates. It also has a lot of details about climate change, the different efforts that are going on, other climate action plans. So I would suggest you regularly check that out. You can also fill out the community survey, if you haven't done So already there is, you are all there, and you'll also find that on the website. And we have that available in Spanish. And Jeff mentioned earlier, also on the website, there's a link that you can submit a question or comment via online form. And then you know, keep an eye out for when we announce our public meetings for later this year so that you can participate in them. You can follow us on social media, the city of Bethlehem is active on social media.

45:53

And so, as Nurture Nature Center, we have Facebook, Instagram, and Twitter, And so if you follow us, we'll provide updates and additional ways that you can contribute. And then we encourage you all to talk with their friends, families, And neighbors educate them about climate change, and about bethlehem's effort, so far, and about the Climate Action Plan and what we can do going forward.

46:16

You can also look at ways that you can make a difference as an individual. There's ways that you can save money by making your home more energy efficient. There's different changes you can make to your lifestyle. How much me, how you get around all of these things, can make a difference, even if you think just one person can't make a difference, all of us collectively can.

46:37

And, you know, you guys know your community best. So, be informed. Speak out. Let us know what's going on, what your concerns and ideas are. It's really helpful to us, and we are all ears. Now, the Nurture Nature Center is planning a first annual Lehigh Valley Youth Climate Summit. It'll be coming up on July eighth and ninth, we're holding it virtually, and it'll be from 3:30 to 6:00 PM each day. So if you know any youth in your life who might be interested in it, please let them know about it. You can find out about it on our website and on our social media.

47:15

So, with that, we wanted to lead into a more interactive piece of this meeting. What we're asking is, if you are able to, either on a separate tab on your computer, or using your smartphone, if you can go to ... dot com, and enter the code 415664, or, alternatively.

47:36

I will put a link in the in the chat box with the direct link.

47:46

And what we're going to ask is for you to take answer some of these questions.

47:53

Some of them are just.

48:00

Word Cloud.

48:01

Some of them are short answer, and it just sent the link in to everybody.

48:11

I will pull this up and if you have any trouble accessing the Mentee website, you can also feel free to enter your answers to the questions in the chat box within goto Webinar. But by entering your responses into menti dot com, this will allow us to visualize the results and talk through them during the meeting.

48:37

And I apologize, everybody. I have the wrong information. That was fed the earlier session. So I will send an update link in just a second.

48:48

I apologize for that.

48:52

But, yeah, well, it's OK.

48:54

The code will be showing on the screen that you'll want to go to, it's 668381, Or you can click the link in the chat box. Again, I apologize for that.

49:11

So, while everyone gets the website loaded up, and you can do so on your mobile device, or on your web browser, I just wanted to read through an example of what we're looking for with this question. So, the question is, we're striving to embody equity, accessibility, and justice into the Climate action plan. That's important. Always. But, you know, even more a point of emphasis in today's day and age. And, so, we're asking, Do you have ideas of how we can be successful at

this? And so, an example would be that, you know, when reducing the carbon intensity of the city's electricity mix.

49:47

So, that's something that, that I talked about a little bit earlier, in terms of a potential strategy for increasing renewable energy as part of our, our, our energy mix and electricity mix to mitigate any potential cost increases to low-income households on their electric bills. And that could be done through the use of subsidies. Or it could be done through facilitating energy retrofits that help them to reduce their energy. You send us their electricity bill. So, that's just one example of how some climate action plans have attempted to embody these principles, and we're looking for additional ideas from all of you to how we can really live up to these principles, and, and implement them. So, if you haven't done so yet, please go to the ... dot com website, and you can enter code 668381, and that you will start to see some results up on the screen.

50:44

And, of course, if you're having any trouble, feel free to note it to us in the chat box, and we'll try to troubleshoot for you.

51:05

And if you just want to speak to this and set up doing the Chat, you can just raise your hand.

51:12

There should be a little hand icon, and I can unmute you, and you can just talk it through, if that's easier.

51:24

It looks like we're getting some responses.

52:04

No, that's fine, if you need to think about it. You can always fill out that survey. Or, you know, go to that link that's on the main cap.

52:15

Webpage, bethlehem cap dot org and you'll put in anything that you comes to mind at a later time.

52:27

I'm seeing some about trees, doing something with school transportation, local food options.

52:40

Yeah, I saw a comment about involving the younger generation. And I just wanted to note that one of the stakeholders in our stakeholder working group is the Bethlehem Area School District, and we've been attempting to engage with some of the environmental clubs there, as well as the broader student population. And so we're really taking that to heart and hoping that we can get contributions. And participants from Bethlehem residents of all ages.

53:17

Yeah, Sure.

53:37

These are a lot of good, good pieces of feedback.

53:40

I guess before we move on to the next question, I just wanted to give folks another chance to expand upon what they've entered into the box here. And you can use your that the Hand Raise feature within the goto Webinar in order to let us know that we should unmute you to, in order to speak or ask a question related to this question.

54:07

As we're waiting, there is a question related to the space cleared when Martin Tower was demolished and about what we can do with land, turning them, that was once natural and then not developing it.

54:29

I don't know if Jeff format, you want to take that as kind of similar to one of the comments that we had in the first session.

54:39

Well, we haven't gotten the final develop plans for the site, Yeah, but certainly, we will be reviewing those and stormwater trees.

54:48

All those aspects will be things that will be looked at, and, you know, they'll need to be forwarded to the guidelines that are in place.

54:59

Thank you.

55:04

Yes.

55:18

Yeah.

55:23

I see a note there about partnering with organizations led by people of color, and that is also something that we're really aiming to do with the stakeholder working group and have reached out to a number of different community groups. And citizen action groups looking to include as diverse population of residents here in Bethlehem as we can, and will have, a later question, actually, about the best way to engage. some of those folks given the challenges right now with social distancing and encode at 19.

56:01

Yeah.

56:15

That's right.

56:17

Well, we'll go on to the next question.

56:21

What do you hope most for the third time, an action plan will achieve?

56:27

This'll be a word, cloud.

56:29

I'll let Jeff speak to this a little bit.

56:34

Thanks, OK. So, yeah, with this question, we're really trying to inform some of the principles that we use for a strategy selection and, and really the overall goal and target setting process. So that we're assuring that the plan is addressing community needs and community desires, and that it's shaped by by you. And so, we asked the same question to our stakeholder working group, and one of the most common responses with collaborations and partnerships. But it's an open response question. So, as you can see, they're starting to appear on the screen there. As you provide your responses through the mentee system, we really want to know just one sentence or one word about what you hope the plan will achieve. And then, again, we'll use the, the option if you want to raise your hand and explain your response and why it's so important to you. That would really help us in terms of an interpreting some of the results we're getting here. So, I'll give you a moment to enter your response and encourage anyone who wants to ...

57:34

spanned upon their their entry to please raise their hand in the system. And we'll call on you and, and I'm gonna mute you for discussion.

57:43

Jose, you are unmuted if you would like to speak.

57:47

Oh yes, since you brought up the Morton Tower development there, of course, we were all shocked to dissipate. I think, many of us by the removal of the large, mature trees all around the property.

57:59

But, will the public have a chance to comment, review, and comment on the development plans? They receive?

58:07

Make sure there isn't enough green space or water abatement and so forth.

58:15

Yes, definitely, At some point in the future, when we do receive those more detailed plans, we'll go to the Planning Commission, and the public is certainly welcome to come and have the opportunity to give their opinion on the plants.

58:28

Is there a timeframe at this point for when the plants will be submitted through?

58:34

Not at this point, No.

58:37

OK, I'm sure. It will be publicized.

58:41

When that does happen.

58:43

Great. Thanks, man.

58:49

And just expanding upon that question beyond the scope of Martin Tower, I just wanted to highlight, from my earlier slide, about the timeline that we will be releasing the components of the plan for discussion with the public, you know, as we move on through the development process. And the question came up on the previous webinar earlier today, about whether it would be presented to City Council, and, you know, that you had indicated that, yes, it will be presented to city Council as well.

59:23

Looks like sustainability, education, equity, to the top.

59:36

Again, if anybody would like to raise their hand, well.

59:40

I just unmuted you if you'd like to speak.

59:44

Hi, yeah, thank you so much for this invitation. Super compelling. I have two questions. one, sort of in response to what you just mentioned, just about this being presented to the City Council, I'm curious if you could speak more to what kind of teeth the plan will have?

1:00:01

Like, what incentives will this plan put forward, so that these recommendations become implemented?

1:00:09

And my second question is about green stimulus, and I'm curious to know if there's any potential, if you've given any thought to investing stimulus money that's coming in for code and more transformational approaches to dealing with content over.

1:00:32

Thanks, that's a really great question or a great set of questions. And so, to address the first question on, in terms of teeth, that so, as I mentioned, that the plan is A, Is a Roadmap. And, you know, the extent that it will be no binding, in terms of, like, for example, setting a Target. Well, you know, one met, Matt, maybe you can speak to the potential for presenting it to City Council.

1:00:59

But, you know, that the heart of the binding aspect of it will be the release of the plan to the public and kind of publicly stating these goals.

1:01:08

But, in terms of some of the specific policies embedded within the plan, you know, as I mentioned, at the top of the webinar, this will be sort of proposing these steps as actions to be taken, but they won't be, you know, put into law or City ordinance until after the release of the Plan, through the implementation process, that we define as part of the planet, if that makes sense.

1:01:33

Yeah, obviously our City Council and the Mayor are very supportive of this Common Action Plan, and for the last several years.

1:01:44

Everyone is excited.

1:01:45

And so, I think they want to see what we come up with and they want to move ahead with it.

1:01:50

So, it's, it's definitely something that I'm sure people will get behind.

1:01:59

Yeah. And just to add some context, there are, you know, that the City Council has taken previous votes on and sort of, codifying some of the commitments that I talked through, so the commitment to upholding the Paris Agreement, for example. So, there, there is precedent for City Council taking action on, kind of signaling support for some of these initiatives. And to the second question about the covert funding and stimulus funding. I can't can't speak to that specifically, But I would just say that, you know, we're sort of open to all suggestions at this point in the plan development process. And really just looking for thoughts and ideas from the community on what initiatives, as well as what uses of funding would be most impactful for achieving some of these goals that are appearing up on the slide right now.

1:02:52

Alright, well, I think we can go on to the next question.

1:03:01

So we have about, I'm sorry that the text is a little small. but we're basically asking you to prioritize some of these goals for the climate action plan, the different strategies.

1:03:15

And so it's everything from reducing greenhouse gas emissions to improving equitable outcomes. Demonstrating Bethlehem as a leader, promoting workforce development, jobs, economic opportunities, reducing local air pollution.

1:03:31

And so you can just track the different ones to, older than the way that you think are the highest priorities, um, for this question.

1:03:45

Yeah. And this will really having this information about priorities, and how we should be assessing actions and strategies will be useful in terms of the, both the selection of strategies to incorporate into the plan, But also prioritization in terms of, you know, how they should be assessed in terms of implementation and, you know, really making sure that we're achieving and putting forward strategies that are gonna really unlock multiple goals here. We really want to emphasize the co benefits that I talked about, of resiliency, social, benefits, environmental benefits, It's a, it's not, you know, reducing emissions is an important part of the plan, but we want our strategies to address multiple dimensions, And so, getting at the priorities here is, is the goal of this question.

1:04:36

Whoa!

1:05:20

And again, if anybody has any questions, or want to make any comments, just raise your hand, and I can unmute you, could be related to this question. Or you can?

1:05:32

any other questions or comments you have related to cap?

1:05:47

Yes.

1:06:31

Looks like reducing greenhouse gas emissions, and air, local air pollution has, or the top 1 and 2.

1:06:50

And so, um.

1:06:54

Someone noted that, you know, we do actually have to address all of these issues again as soon as possible, and that's true. That is true, but in terms of prioritizing the resources that we have available, that's really what we're trying to get at with this question.

1:07:34

OK, I'll give another NaN. Anybody wants to raise their hand or?

1:07:45

Ask a question.

1:07:52

Just to know, we've answered a couple of the questions that have come in through the chat box, but if you, if it's easier to explain your, your question, just live, feel free to raise your hand, escape indicated.

1:08:16

I think we can move on to the next question.

1:08:23

So this is about setting goals related to the Climate Action Plan to therefore our choices.

1:08:30

Should we be setting aspirational goals with great ambition, even if the ability to achieve them is less certain?

1:08:37

Should we set goals with a high degree of confidence for our achievement? Set goals based on the latest climate science.

1:08:45

Set Goals Based on current economic and technical feasibility.

1:09:04

And to add some further context to this question, as I mentioned, that, setting a goal and a target for emission reductions is one of the key pieces of the, of the plan. So it's one of those six primary components, including the baseline, the principles, and the strategies to achieve the goals. And so, your response on this question is really helpful in informing us and the approach to take for setting those goals. And, and so, these are kind of four broad approaches for how to approach a goal. But, but, then, within each of these, there's, there's detail on what, you know, that's something that you can provide further thoughts on, through the chat box, if that's helpful, or through the, the submission form on the city's cap website.

1:10:03

Right?

1:10:23

Yes.

1:10:25

Alright. You guys are quiet, but instead, anyone want to explain their choice on this question?

1:10:34

Just raise your hand.

1:10:49

It looks like setting the goals based on the latest Climate Science. What's the top pick?

1:10:56

Which was actually the same for our earlier session.

1:11:13

While folks continue to respond there, if you have any questions about these approaches, feel free to raise your hand. But I can add, in terms of setting goals based on the latest climate science, that, that can kind of mean different things, depending on the level of ambition that you're aiming for. So, Kate talked a little bit before about those emission scenarios in the climate modeling that we can use to estimate what the future impacts are going to be in terms of precipitation or increased heat events and so on. And so setting goals based on climate science typically involves choosing a level of temperature rise that you want to try to limit the mission, or choosing a goal. That limits temperature rise to a certain level, which then limits the potential impacts of that temperature rise, And so that that's what's meant by that third option there.

1:12:03

So for example, it could be to limit temperature rise to well below two degrees, which was the the goal of the 2015 Paris Agreement, which also had an aspirational goal of limiting to 1.5 degrees Celsius.

1:12:21

Just Emma is asking, what are baseline data?

1:12:25

What your baseline data is from?

1:12:29

That's a good question. The baseline data for the citywide inventory is from 2017, and so that was the latest year that we were able to gather all of that electricity, and natural gas data for, to come up with that emissions calculation. But the baseline is, that is the starting point, and, you know, we want to, probably through this plan, put in place, a process to update that inventory on a regular basis, is as the way of measuring progress towards the goal.

1:13:03

And I would note that the city municipal operations baseline, so the one that Matt mentioned, we've reduced emissions by over 40% from municipal operations, that baseline is 2005.

1:13:26

All right, Jeff, do you want to move on to the next question? Or do you have one raised hand?

1:13:34

My yourself muted, so if we can just talk.

1:13:38

Sorry, I don't want to take up too much space that I have one more question, which is about an organic waste recycling program. I'm curious to know if this is going to be part of the plan in addition to more traditional forms of recycling. Because I noticed that I think 9% of our greenhouse gas emissions come from waste and organics recycling programs. And composting programs have shown tremendous success in other cities.

1:14:09

I think that's a really good point. And, you know, I think the question there was, is that going to be incorporated into the plan, and so that the short answer is, we don't know yet. The plan is still being developed, but it's great to get feedback on that, That is an initiative that you would be interested in, and, and we would want to get feedback from other stakeholders and the public about that initiative. But, given the, you know, that, as you mentioned, waste is potentially up to 10% of citywide emissions initiatives like, that are going to be a key piece of reducing that waste slice of the pie.

1:14:46

And we had received some other questions as well through the chat box, asking about whether there would be incentives for solar included in the plan. And so, that is, again, the plan at this stage is not finalized. It's still being developed. And so that's something that we would like input on. If incentives for solar is something that, you know, there's a broader public, and stakeholders feel would be helpful to, you know, increase solar adoption. That's something we want to be hearing, but we haven't yet determined which policies or our proposals, or programs would be incorporated into the plan. And so that's, that's what this process is all about, is getting feedback on those potential strategies.

1:15:39

So unless anyone else has their hand raised kid. I think we can move on to the next question it seems like that aligning goals with science is the preferred choice here of these options.

1:15:50

Patience has her hand raised.

1:15:54

I just wanted to echo the previous residents interest in having compost residential composts. I've been watching communities, it, well, I believe this I don't know if it's just a municipality In Vermont.

1:16:10

Or fifth, the entire state has gone to mandatory household food waste, composting and we already have such a fantastic Yard Waste Facility and we already have really fantastic recycling. It seems to me that it would be something that would be very possible.

1:16:34

Thank you.

1:16:37

Kathleen, you can unmute yourself and talk. Yep.

1:16:41

Hi, I think I'm unmuted, yeah. So I'm the one who said, we should create incentives for solar. So I know that the city has recently changed its ordinances about putting up solar because I was had recently put up solar, I have put it up in the past and put it up, again on another roof.

1:17:10

And, and the city has become more stringent and its requirements for putting up solar and has recently, and that has cause less solar coverage and I know the reasons what they've given, but it incentivizes people to put up solar, it also. I also think it would be wonderful if the City could create some sort of tax incentive. Such as the way the State had. And the Federal has create a tax incentive on either personal income tax or real estate tax to put up solar. So, those are some things that I'm suggesting. Thank you.

1:18:10

Thank you.

1:18:16

Elizabeth, should be unmuted.

1:18:20

OK, hi I'm Elizabeth Baron from the Bethlehem Environmental Advisory Council. Owners wanted to comment on the composting. We're in the process of getting a program going in Bethlehem that would be citywide and it would be specifically for food composting and we're following the model that Eastern is using, they have a really great composting site there where residents can fill up a bucket at home and then bring their food waste there. And that's sort of the idea that we're going with, and we actually have a meeting tomorrow about it, at 5 30. If anyone is interested in, maybe we can connect through Catherine or some other means about that.

1:19:10

Elizabeth, do you want to speak a little bit more to the composting that they're doing in Easton?

1:19:17

So in Eastern and they have a facility where any resident could get a special bucket that the compost at home. I believe it's \$10 for residents and you take the bucket home, you fill it with your scraps, and then you take it down and to the site and just give your food scraps there and then they take care of it. And that's kind of the idea that we're looking to do here on Bethlehem. We we don't have all of the details worked out, but that's what it's going to be based on. The residents could choose to purchase this bucket and if they have that certain bucket then they could go down and recycle or compost or food that way. So it doesn't get thrown into the trash.

1:20:02

Thank you.

1:20:04

Oh!

1:20:13

There was another question I thought maybe Matt could speak to.

1:20:17

Someone was asking about stormwater management in the city. Is there a plan that the city has for stormwater management? They could speak to Definitely there's several and they're being updated all the time.

1:20:36

We have a pollutant reduction plan that we're finalizing right now There are you know Act 167 plans and ordinances four any Development a very significant that occurs within the city.

1:20:50

So that's all reviewed and you know, there's a lot of requirements and they they're increasing practically every year.

1:20:59

So things are getting no tighter in encouraging more things like infiltration and Irrigation and things like that to use with the stormwater so it's definitely evolving and, um, making more requirements for developments.

1:21:23

Thank you.

1:21:33

So I think we can move to the next question, or the next poll question, And as questions continue to come in through the chat box, I think we want to continue to address them in the final 10 minutes of the meeting here. And while that gets pulled up, I just wanted to address there was a question that came in about, you know, basically a comment that better.

1:21:54

There may be better choices for solar than putting them on rooftops in town, know, just due to obstruction obstructions, like trees and shading and things like that. And so, somebody else commented in the chat box about community solar here in Pennsylvania, and that's something where, even if you are a renter or don't have access to good solar roof, that you can subscribe to a kind of community based solar installation.

1:22:20

And there is a comment from, I think it was from Kathy, in the chatbox that there is a bill in the state legislature to permit community solar. And, so, I bring that up just to make the point that some of the strategies in the climate action plan, may be able to be implemented here, at the local level, by either city government, or private sector partners. But, others may be controlled more at the state or federal level. And it's common for climate action plans to include a section on kind of working with the state or other municipalities, regionally, to influence policy at those higher levels of government, to enable new programs and procedures to happen that will help to achieve the city's target. So, that's something that will be considered in the development of the plan.

1:23:07

And so, the next question here, just, I see some answers starting to come in, is just, do you have any concerns about what is under discussion for inclusion in the plan? We want to make sure that, you know, we're taking any concerns or potential issues to consideration here. And so please, you know, both, you know, in terms of reducing emissions or if we're not going far enough, and things like that. Please. This is an open question. So, start to put in your answers here about any concerns you have, and, of course, we have a submission box on the city website

as well, where you can submit ideas or concerns after the meetings over if something occurs to you later.

1:24:26

I see some comments in coming in about making sure that the plan integrates racial justice and inequities. And, you know, as the link, I think points out there, that is something that other plans have run into in terms of, you know, energy cost burdens and some of the inequities that I talked about earlier, from pollution and climate impacts. So, that is something that we are definitely considering in the plan and are also looking for constant feedback from the community on how we can do that better.

1:25:11

Just how long well kept be in effect? Or is that still a consideration?

1:25:20

So, the The cap will be in effect effectively. It will depend on the specifics of the goals that are set, so that is still under consideration at this point. And, Matt, I don't know if you want to add any further context from the city's perspective, but, you know, I think generally, in terms of climate action plan development, the effective length of time depends on the length of the goal that's set, and that is something that's still under consideration.

1:25:47

I think we're still early enough on that.

1:25:49

We haven't made all those decisions yet, so still being discussed.

1:26:01

So we're continuing to receive a lot of responses in here. You can see them circling through the screen there. Would anyone like to, to kind of comment on their submission to this question and expand on what their concern is?

1:26:20

And if so, you can, you can raise your hands through the the WebEx interface.

1:26:59

All right. Brian, you are unmuted.

1:27:06

Yeah. You're trying to make sure you can hear me? Yeah, I guess I made a comment in there and I just figured I'd experience or a little bit closer, formerly only. Bethlehem EAC, until I looked down.

1:27:22

City limits but are still co-chairs here, club the club group and the employer data, whether you're on the wiki on helping them out, especially with the Energy committee. And a couple of those one equity, Bryan Mcray, Analytical psychology. And I know we've been talking about pacing for a little while. And we further that, there's a lot of potential with solar, especially with commercial. And one of the things that in studying the impact, you know, how solar is related to energy and emissions and all that great load.

1:27:59

We hear this a lot of potential associate for commercial sighted solar or you think about energy loads and how people and a computer uses energy. You know, there's always generated during the day typically operate during the day. So having a solar sited on commercial properties will be very well suited because there may be using it as being generated so you wouldn't have transmission or grid losses or anything like that.

1:28:28

I think the biggest question mark, if, you know how, make it appealing, how do you incentivize better businesses?

1:28:37

Complicated question, but I'd love to see that explored in the actual time. Because I think there's a huge potential with that, and the, the, right, businesses might be able to maybe, very well to jump on board.

1:28:57

Thanks, Brian. Yeah. That's a really great point. And definitely something that we will be trying to consider in the development of the plan.

1:29:07

I was wondering if the person who commented about having proof, being inclusive and equitable on the process, might be able to speak a little bit more to that. We are open to your ideas and suggestions to facilitate that.

1:29:30

And if you just want to submit that comment in the question box, too. That's perfectly alright.

1:29:56

Jeff, we just have one minute left.

1:29:58

I don't know a few, when you move to the next question, I'll just wrap it up.

1:30:05

I think if you go to the the last slide, I think we can just provide a quick recap of next steps.

1:30:15

But thank you, everyone for, for joining us tonight. We really appreciate you taking time out of your evening to provide this input. It's really valuable, And this is really just the start of the process. As Kate mentioned, there are numerous opportunities and methods that you can engage with us and provide further input on the plan as it's developed. And as Kate mentioned, we're, you know, we're, we have an engagement plan right now, but we are also dynamic and looking to evolve that plan based on community impact input and recommendation.

1:30:48

So we are working hard to make sure that we're engaging diverse and representative group of residents and businesses here in the development of the plan. And there are certainly challenges due to cope at 19 and that kind of current state of the virus. But we are open to any other suggestions here that you or anyone else may have about how we can improve that facilitation process and engagement process going forward. So, again, thank you, everyone. We will be making the slides and a recording of this presentation available in the coming days. And encourage you to help spread the word and let people know about the the City's website, where

all of these resources are available. Including the survey, where you can provide more detailed input about your priorities, and preferences for the plan. As well as our idea and comment submission form to provide direct input on any concern or idea that you may have, and, that's, that's open on an ongoing basis, so there. So, please take a look, and thank you so much, and have a good night.