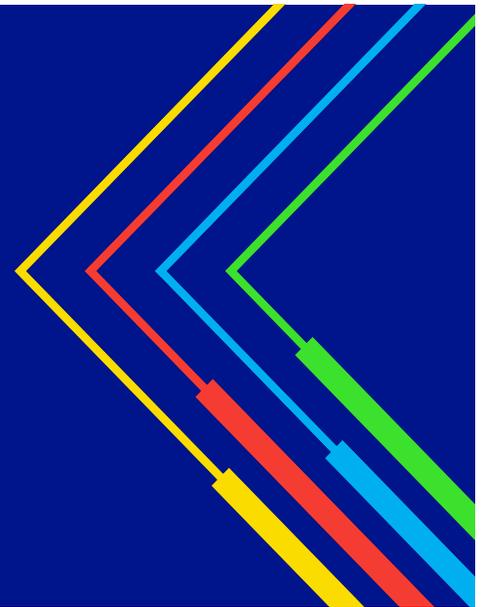


# Virtual Open House

Transcript (11/30/21)



## Beverly Regional Transmission Reliability Project

*Q1: What is the projected timeline for this project? I Would like to know what time of year and the impact to citizens traveling along the proposed construction route and mitigations to those interruptions – Mike C.*

*Tim O'Leary, Project Manager*

There will be some travel interruptions. One of the common questions we get is “I don't live there but I travel through Beverly to get to Salem to work” or something that nature and is this going be similar [in terms of the level of construction done in Salem.] There will be some traffic congestion, where we will have traffic management plans. We'll be working very closely with the police department, the DPW, and anybody else in the city that needs to try to minimize that. But there will be a little bit of traffic. We'll have signage boards up, we'll have information on the website, we will public information on any avenue that we need to complete that. This work will be going on in four different seasons, so as soon as we can get started. We'd like to get started in early 2022, this work will continue for 20 to 24 months. This timeline includes the new construction and the cable installation. The entire project does go over a length of three to four years, as after the new cable is energized, we have to go back and remove the existing cable, which runs in different areas, including a submarine portion that runs beneath the Danvers River. The entire project is quite lengthy, but by the time you'll see construction in the city streets it would 20 to 24 months.

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

Thank you, Tim. And we do move along the route, so we will not be in front of your business or your home for 20 months. It would be maybe a week or two and then we will be moving down the way.

*Mark Rielly, National Grid Counsel*

I just wanted to add that in our agreement with the city, we committed to preparing a traffic management plan that will address a lot of the questions regarding mitigation. We also agreed to lease two mobile signs that could be stationed or stage to help alert the traveling public about the project. We agreed to pay for directed police patrols that will help manage traffic on the main route, as well as on adjacent side streets. We also committed to posting no parking signs 48 hours in advance as we move down the route during construction, as well as putting that information about road closures on or website in advance.

*Q2: Additionally, can you discuss when the MBTA PTC project will complete and what impact that may have on your project timeline and why the replacement line cannot be placed along the MBTA railway line. – Mike C.*

*Sinan Ashkouri, Engineering*

There are a few different pieces of information with this. The PTC program was installed, and I believe has been completed, on overhead lines along the railroad tracks. Currently, the MBTA is working on installing and completed an ATC project which is set to be completed by the end of 2022. At the beginning of 2022, the MBTA has a third project to install a PTC resiliency which is basically the PTC project that they had installed above ground is now going to be installed below ground. That is set to begin in the beginning of 2022 and take approximately five years for it to complete. So that is the PTC project, in terms why we cannot replace the existing line along the MBTA line, as time discussed earlier, there just is not sufficient space on both the west side and east side of the tracks without having major issues that we would need to deal with.

*Q3: What is the plan to remove the old cable from underneath MBTA railway? Is this part of current plan as well? – Mike C.*

*Sinan Ashkouri, Engineering*

So once the new circuit has been installed and energized, we will be deenergizing the existing the direct buried cable that runs from our north river terminal in Salem to our east Beverly sub. Once that circuit gets de-energized, we will be removing the fluid that is within the cable, which will take a couple of weeks. Then we will start to dig up the roads between our North River terminal to our Beverly 12 station, as well as from the Beverly 12 substation all way along the tracks towards the adjacent Beverly substation. There is about a mile worth of city street cable that needs to be removed and about 2 miles worth of cable that is along the MBTA right-of-way. There is about a half mile worth of cable that is in the Danvers river that we have between the two cities. I would expect a rate of about 40 to 100 feet a day of removal of the cable as we progress with the cable removal process.

*Q4: I'm concerned about the roads. Broadway for example was recently paved. The roads in Beverly are terrible as is. Can National Grid repave the roads that they will be tearing up. Patches only last a few years and lead to quicker wear and breakdown. - Wesley Owen*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

National grid will do what's called "temporary paving" once we're through an area and then we are funding the complete curb to curb restoration of the roads that are impacted by the project. We are funding that and the city has committed to doing it. So, the roads will be fully restored.

*Q5: What percentage of the electricity transmitted is being generated by renewable energy? 25% 50% 75%? Is this moving us off fossil fuels or maintaining existing fossil fuel sources? Is this a good investment toward reducing our fossil fuel dependency? – David Mahood*

Danielle Aretz, Lead Specialist, Stakeholder Relations

The short answer of this is that transmission is a mix of electricity that is generated by multiple sources. So, there's generation in natural gas, nuclear, hydro generation, wind (offshore and onshore) and all of that goes into the transmission system, it's a big mix. What we can do to give you a little bit more clarity is that there is customer documentation that explains that a little more. You can also view that in your bill to see how much of that energy is coming from renewables. We will post that on the website, and it will be up by the end of the week.

*Q6: Can you please comment on the selection of the sitting board members? - Anonymous*

Mark Rielly, National Grid Counsel

I've provided a [link](#) to the energy facility citing board that lists the names and titles of each of the nine members of the board. They are generally heads of various state agencies, including the Department of Public Utilities, Department of Energy Resources, Environmental Protection, the office of energy and environmental affairs, housing and economic development. There are two public members, one representing labor, one representing the energy sector. This will be posted on the website.

*Q7: We elected officials, ratepayers, local leaders, and community representatives have committed to gathering more needed information about National Grid's proposed replacement and relocation of the 50-year-old electric transmission line that is currently situated underground in the MBTA commuter rail line right of way. In fall 2018, National Grid rejected a replacement in place project, citing constructability issues with the MBTA right of way, and they proceeded through state permitting with their preferred line running several miles under city streets from the harbor front to National Grid's East Beverly booster station.*

*We have collectively expressed our desire and commitment to work with National Grid and the MBTA to revisit this approved route and to pursue an agreement to site and build the new line in the rail right of way, most recently during a public meeting at Beverly City Hall earlier this month. At present, National Grid's response is that they will not consider changing the route. In the wake of this conversation, we were notified, just as you may have been, that National Grid scheduled a virtual webinar for the evening of November 30, 2021. We had no part in scheduling this event. In fact, city officials, ratepayers, local leaders, and community representatives were not consulted, and some have unavoidable conflicts with this date and time.*

*From both the National Grid description of this meeting and our conversation with their representatives at the recent public meeting in Beverly City Hall, it appears today's November 30th scheduled webinar is part of a National Grid effort to build support for their preferred, permitted route for the 115KV electric transmission line. As you and we all make our decisions about whether to attend this meeting, we want you to be aware that this meeting is neither the result of nor indicative of any good faith effort by National Grid at partnership with the community.*

*Thank you for your kind attention,*

Mayor Mike Cahill  
Senator Joan Lovely  
Councilor Scott Houseman (Ward 4)  
Councilor Estelle Rand (Ward 2)

*Councilor Julie Flowers (At Large)*

*Councilor Stacy Ames (Ward 3)*

*Rabbi Alison Adler, Temple B'nai Abraham, Beverly Multifaith Coalition*

*Alyssa Rayman-Read, Resident, Ward 4, representing the Pause the Project community group*

*Blyth Hazen, Resident, Ward 2, representing the Pause the Project community group*

*- Alyssa Rayman-Read*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

We are holding this presentation and this webinar to inform the public. We've been asked questions and we've been asked to do more of these kinds of sessions. This is what we are doing. We are very grateful for those of you who have joined us this evening and who are participating and asking questions. This is what we're hoping for, to have these open dialogues with you, so thank you very much.

*Q8: Could you speak to how the old cable will be removed from the west side of the tracks and cleanup performed (separately from this project)? How will the space and MBTA restrictions be managed then? – Hannah Bowen*

*Sinan Ashkouri, Engineering*

So, to remove the existing cable, you will need a smaller trench to remove the cable. This cable has a concrete cap that sits about six to nine inches above the cable that also has to get removed. The way that we would proceed with the removal of the cable is in sections of about 40 to 100 feet, and then we would be rolling the cable out on to an empty reel. We would then restore the trench back to its normal condition, with the cable being absent.

*Q9: Would it be possible to have Danielle or someone else from National Grid speak about this project - with updates, etc. - at our neighborhood group Ward 2 Civic Association in February? We meet in person the 4th Tues of every month at the public library main branch at 6:30pm. It would be Feb 22. – Hannah Martino*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

We would love to come and talk to you and your neighborhood group. If you send an email to the project email address, we can schedule something and put it on our calendar.

*Q10: What is the actual cost of a \$200 million dollar project to the National Grid ratepayers? If the cost were less than the ratepayers would pay less, correct? – Jim Younger*

*Tim O'Leary, Project Manager*

I'm not sure where the 200-million-dollar project price tag came from. We'd have to look into that figure, as that's not part of the EFSP application and the updated financials sent to the sighting board. *Follow up:* Right now, the expected cost, which can vary depending on a number of factors, is expected at 91 million dollars.

*Q11: Can you tell us exactly how many residences, business, and other facilities will be located within 15 feet of the new high voltage line? Within 10 feet? Within 5 feet?*

Tim O'Leary, Project Manager

That's something that we can go back and review, I don't have that readily available at this time, we can follow back up.

*Q12: Will NG produce baseline surveys to monitor the EMFs before construction starts? Will this monitoring be conducted during construction? After construction? - Jim Younger*

Danielle Aretz, Lead Specialist, Stakeholder Relations

Regarding the EMF, when you say baseline, I'm assuming you mean what the levels are now. Could you clarify what you mean by baseline surveys, and are you looking for the EMF modeling in the survey or are you looking for a specific EMF reading at your home?

*[Clarification from Mr. Younger] - How do I get a survey of my house completed before construction to verify its condition before construction begins and potentially damages my house?*

Danielle Aretz, Lead Specialist, Stakeholder Relations

So that everybody who is attending here is aware, our contractor will be doing surveys of homes and that process will be available on our website. Tim, can you elaborate more on pre-construction surveys of homes or businesses?

Tim O'Leary, Project Manager

We have a consulting firm hired that we have done on projects very similar to this. Within a few weeks of going into a neighborhood, you'd be contacted by the company that will be working on behalf of this project, to let you know that they will be doing an exterior survey of your home or your business or whatever facility you are at at the time. You'll have the option of allowing us to come in to do an internal survey as well. Now they are a little come consuming, exterior surveys take about 30 to 45 minutes for a single-family house, and on a multi-family house they can take one to two hours. They do set up a lot of scheduling, and they're available upon request. A lot of people on the past have taken us up on the interior survey, not everyone, and I respect privacy and understand that. This firm will then come back within about two weeks after construction is finished in that neighborhood. I don't want to say per street, but it's in small manageable chunks, and they'll do that survey again. So, it's very common. As a resident you should absolutely take advantage of the interior surveys or an exterior survey that they will be doing if you're comfortable. They look for everything that might be pre-existing to and again afterwards. More information will come as we enter into your neighbor, but this is something that is common practice and that we will be doing.

*Q13: Is there conclusive evidence that exposure at the range of possible levels does NOT cause cancer? - Alyssa Rayman-Read*

Dr. William Bailey, Principal Scientist

As everyone can recognize, it's not scientifically possible to prove the absence of something. Science is about testing hypothesis and collecting evidence that allows us to either reject or support those hypotheses. There is no scientific or health question that can be answered with the absolute certitude that you think you're looking for. What we have is an exposure which is one of the most thoroughly studied in the world. As I pointed out earlier, there's more research that has been done on electric and magnetic fields than most of the chemicals that you come into contact with in daily life. Numerous national and international health agencies have reviewed this research, and despite and scrutinizing it very carefully, have not found that the evidence supports that there

is a causal relationship between exposure to magnetic field and adverse health effects. Having said that, there are other organizations, such as the World Health Organization, that have come up with standards for the general public and also for workers as to the exposures that are without any known health effects. As I mentioned before, the lowest of the standards for the general public is 2000 milligauss. So, we are talking here values that are not regarded by these health agencies as outside of the range that would cause even the possibility of health effect, unless it was roughly 200 times greater, at least 100 greater anyway.

*Q14: Did EMF risk modeling occur at heights more typical for children? - Alyssa Rayman-Read*

Dr. William Bailey, Principal Scientist

The heights at which the magnetic fields were modeled are based on recommendations from international agencies both in Europe, the United States, and elsewhere. It's set at one meter above ground, so you're able to compare measurements made at different locations under similar circumstances without having to then not know whether you were close or far from a source. In the case of distances, I can tell you as a member of a standard setting organization and having been a member of the WHO panel with the International Agency for Research and Cancer, we considered the range of sizes of adults and children. Even if you chose to sit down in the middle of the street on the pavement above this line, your exposure would not exceed that of the lowest recommended exposure for the general public.

*Later clarification:*

Obviously, children grow, and different ages have different heights, so some will be shorter than 3.3 feet and some will be much taller than 3.3 feet and that difference does not affect the calculations of their internal exposure to electric and magnetic fields, in this case just magnetic fields, very much at all. The closer you are to the cable, the higher the magnetic field, but when that the magnetic field interacts with conductive objects like people and metal materials, that means that it's distributed over a greater area that's not just determined by distance. Even, as I said before in my previous example, even if you were infrantly short and placed exactly over the cable, your exposure would not be exceeding the lowest guideline for recommended exposure.

*Q15: Will the proposed infrastructure when constructed support upgrades from 115 kv to 230 kv or 345kv at a future point in time? – Karen Fogarty*

Sinan Ashkouri, Engineering

The proposed infrastructure that we plan on installing for the cables and terminations will be only able to support the 115 KV cable. We could potentially in the future use the existing duck bank and manhole system to install a cable that is rated for a higher voltage, but it may require some upgrades at the substation ends which I am not sure 100% about.

Mark Rielly, National Grid Counsel

I would supplement that from a legal perspective by saying that if that occurred that type of upgrade to a totally different voltage, that would be a jurisdictional project to the citing board, and we would have to file an application to do that.

*Q16: I understand that the new relocated N-192 will become the primary source of power connecting the substation at the foot of the Beverly Salem bridge with the east Beverly substation,*

*is this true? Does this mean that the overhead transmission lines running down the MBTA railroad tracks will become a secondary service (or back-up?)? - Jim Younger*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

So, the M-191 overhead line and the N-192 underground line will be the two primary sources for the k-band region. If one of them were to be out of service for any reason, the other would pick up the entire load. But they are both primary sources to the Cape Ann region.

*Q17: Can you tell me exactly which areas of the route will be re-paved? And to what extent that paving will occur? - Jim Younger*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

The route and where we are excavating will be paved temporarily by national grid as we move through construction, and once construction is complete, National Grid will fund the complete curb to curb repaving of the route, [a project] that the city of Beverly will undertake.

*Q18: How can I review the construction drawings for this project to see what potential dangers exist relating to the location of this new high voltage line within the same roadbed as other utilities including gas line? - Jim Younger*

*Mark Rielly, National Grid Counsel*

Those construction drawings, I personally don't know in whose position those are. I think we shared them with the city, and it is my understanding that the city viewed some of the details in there as being confidential from their perspective. That was not our judgement but that was the city's. I don't have an answer for you right now, let us discuss about whether we can post those some other way. We'd have to consult with the city. If the city is concerned about the material being public, we don't want to step on their toes.

*Tim O'Leary, Project Manager*

The city of Salem and Beverly DPW directors have the drawings as well, but there are some other concerns other than just our proposed line on the drawings.

*Sinan Ashkouri, Engineering*

So just to state the obvious, there are plenty of distribution and transition lines across New England and I'm sure across the United States, where you have high voltage transmission lines as well as high voltage distribution lines in the same streets as other existing gas utilities and other utilities in the streets. If a fault were to occur to a transmission line that is underground, especially the one that we're installing today, we have equipment at the substations which would trip off the circuit in milliseconds before the arc would dissipate through the earth and potentially toward a gas line. In our case, the cable is insulated inside of a PVC conduit and that PVC conduit is encased in concrete. So that arc would have to travel through the cable, through the PVC conduit, through the concrete, through the earth towards the other utilities. And that is a very very unlikely scenario to have happen.

*Q19: Will sidewalks be implemented on Cross Lane as a result of the plan? - Kristen Santoro*

Tim O'Leary, Project Manager

There are no new upgrades to the sidewalks, [nor additions] for the lack of sidewalks in certain areas. Obviously, sidewalks that would be part of the construction in that area would be brought back to the level that they were at and if there is any new construction of a sidewalk that was in the area of a manhole or the duck system that would, just like paving the street, would be completed as part of restoration. As far as new sidewalks to an area that doesn't have sidewalks now, that would have to go back to the city of Beverly with that question, that wouldn't be part of this project.

*Q20: What is the new cable constructed of as the old one is filled with highly toxic PCB's? – M D*

Sinan Ashkouri, Engineering

So, the new cable construction is a cross-linked polyethylene cable, the insulation would be plastic instead of an oil filled cable. The existing cable is not filled with PCBs, but there have been previous cables that have had some PCB like residues inside of it, but this particular one does not have that.

*Q21: On page 4 of Richard Lester's report on Magnetic Fields of Oct 28 to Michael Collins indicates that studies have shown a correlation between 3-4 mg and an increase of childhood cancer. - William O'Brien*

Dr. William Bailey, Principal Scientist

I'm aware of the data you're discussing. As I mentioned before, in 2000, the two agencies I mentioned reported a statistical correlation between long-term average exposure estimates, we're talking about months to years, and childhood leukemia. The important thing to recognize is that the measurement of the calculations that we have presented here, except when you're so far away from the cable that they would be contributing some very tiny amount to someone's home, are all short-term measurements. So, when your son or daughter waits for the school bus, and they're underneath a distribution line, or is using an appliance in the home, you might be exposed to dozens, to hundreds, to thousands of milligauss for short periods of time. That is not what the statistical association is capturing. It is only capturing the long-term exposure over many months and years. So, as we go about your lives, we move closer and further away from many sources, and so even though you could use an appliance or be in some locations where you could have exposures of hundreds to a thousand milligauss, if you average that over a day or a week, that contribution to your overall exposure is very very small. So whether this project is constructed underneath the street or not, will have a very small if any impact long-term exposures of residents and homes that are further away.

*Follow up question by Mr. O'Brien:*

*Q22: I'm concerned about the increases in peak power from these lines in 10 years. With the increase in the use of electricity by electric cars, I could imagine that radiation being within some people's houses.*

Dr. William Bailey, Principal Scientist

You will recall that I discussed with you the very recent study that just came out several months ago, by A. Moon and his colleagues, who analyzed the last 10 years of data looking for this statistical association between these long-term magnetic field estimates and childhood leukemia, and they found that in that data there was no association between these average magnetic fields and childhood leukemia, which was indeed different than what had been calculated in 2000. So,

there was an association in 2000, and every decade since then it has dropped, and now there is no association reported by these investigators with a very large database of tens of thousands of children in each of these two groups who are being compared. One of the difficulties of interpretation that prior studies had in 2000 is that there were so few cases and so few controls that a simple chance could give you differences in estimates of the exposure of these two groups that had nothing to do with the exposure itself, just as sampling errors. Given this very large number of participants that were evaluated here most recently, that uncertainty has been diminished.

*Mr. O'Brien*

*So basically, Lester's report is based on older data?*

*Dr. William Bailey, Principal Scientist*

I would expect that that's the case. I did not see reference to this recent study in his report.

Q23: Will National Grid be helping to offset the cost to our city for over time and extra coverage for the fire department as you will be going right in front of the city's main headquarters – M D

*Tim O'Leary, Project Manager*

We'd be working with the local police and fire departments on anything related to the construction. For traffic, for city streets congestion, and setting up traffic management, as well making sure there's access in front of that fire station in question. So, we will work very closely with the fire department.

Q24: *Some construction questions - Could you share more about the steps you are taking to safeguard residents during construction around sensitive areas, like directly in front of our fire station? Where exactly are the manhole sites? How long does the manhole construction process take (not just "longer than other duct work")? Could you share how the city is compensated for the additional cost of police details during construction, including if the project does not stay on schedule? - Hannah Bowen*

*Tim O'Leary, Project Manager*

There are a variety of manhole sites, we can put probably a more defined map up on the website to go over each site on each particular street. But manhole construction is approximately one to two weeks just for that manhole. It's a good approximate based on other projects that we've had ongoing. The police detail though, those are costs not incurred by the city, those are costs that are paid for by National Grid as part of this project. So that wouldn't be a cost to the city residents, that's a cost for national grid.

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

Again, just to reiterate, this is a lot of information, as we get closer towards construction, we will be reaching out to residents via door-to-door and then also our e-newsletter that you can sign up to receive on our website. But a lot of our information will be on the website, especially some more details, FAQs on the construction of the duck bank and manholes.

Q25: *Has a final decision been made on the project? - Richard Tabbut*

Mark Rielly, National Grid Counsel

To the state siting board yes, the decision was issued last month. That is final decision from them, and we received a grant a location form the city council of Salem recently. Our last open approval, well we shouldn't say that, there could be other permits that are still outstanding, but we do need approval from the city council for a grant of location in Beverly.

*Q26: Will the current raised power lines to homes on Cross Lane and along the route be put underground as a part of this effort? - Kristen Santoro*

Danielle Aretz, Lead Specialist, Stakeholder Relations

The Answer is no. This is for a transmission wire, it is your high voltage, 115 KV. The power lines that are above ground, those poles to your homes are distribution, and this has nothing to go with the lower that is on the streets, that you see up on those poles. That would be a completely separate effort.

*Q27: How are you deciding which questions, and whose questions, to take? - Alyssa Rayman-Read*

Danielle Aretz, Lead Specialist, Stakeholder Relations

We are answering and taking these questions as they are coming in.

*Q28: How long has the existing N-192 been inactive? – Jim Younger*

Sinan Ashkouri, Engineering

The existing N192 faulted and failed on April 6<sup>th</sup> of this year. We just recently re-energized this circuit the Monday before thanksgiving. Yesterday we applied load to the existing cable. So, it is currently back in service, and it has load on the circuit.

*Q29: Will you be covering the potential start and end date of this project during this call?*

Danielle Aretz, Lead Specialist, Stakeholder Relations

Potential start dates are dependent on when we receive those grants of location for Beverly. We do plan to start work in Salem, where we did receive our grants of location, in December. Again, the end date would be roughly about 18 to 20 months.

Tim O'Leary, Project Manager

We are aiming for June of 2023 for construction to end, right now that will be pushed out a little bit, so the Summer of 2023.

*Q30: Are you going to answer our questions? - Michele Green*

Danielle Aretz, Lead Specialist, Stakeholder Relations

We are scheduled to be here through eight, so we will try to get through as many of the questions. For questions we cannot answer on this call, we will have a document with all our questions answered and have that available on the website, as well as the questions we will not get to this evening.

*Q31: Why now based on the timing? Many of us work out of our homes and our businesses have not recovered from the shutdown based on the pandemic. This seems like very poor timing. - David Mahood*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

I understand that. I understand the frustration of having a construction project when you are trying to work from home. Unfortunately, we don't really get to pick and choose when these lines have to go in. We will do our very best to minimize the construction impacts, but this n192 is needed and we can't really wait for the next couple of years, we need to get this done now.

*Q32: Is National Grid willing to contractually commit to Beverly that there would be no EMF impact to homes alongside the new underground cable? -William Kyrouz*

*Mark Rielly, National Grid Counsel*

We had a burden of proof at the sighting board to show that there'd be no impacts to public safety, and if there were impacts, we'd mitigate those, and we've done that. I don't know what impacts you're referring to, and that's not something that we would contractually commit to.

*Q33: On Lothrop St between Paramatta Rd and Corning St, there is a 42" wide water runoff pipe that is about 800 ft long right down middle of Lothrop St. Is National Grid aware that this pipe exists and has taken it into consideration for its protection from damage during installation of the transmission line? – Donald Moca*

*Vic Antonello, Consulting Engineer*

We are aware of that large drainpipe on Lothrop. It does show on our drawings, and we have ceded our new facility off to the side of it. And during construction our contractor will be well aware of the location of that. They are required to locate those facilities before they begin construction and they're required to take measures to protect neighboring utilities while they do their construction. So, they will coordinate with the city of Beverly during construction to ensure that we're not damaging those facilities.

*Q34: When are you planning to start construction? – Jim Younger*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

I addressed this a little bit earlier, we are set to start construction in Salem in December, where we have received the grants of location. Our start date for Beverly has not been set just yet. We still need to go for the grants of location permits.

*Q35: Is this meeting being recorded? When and how will it be shared with the "affected & abutters"? Please address tonight! – Michele Green*

*Danielle Aretz, Lead Specialist, Stakeholder Relations*

This is being recorded, this presentation will be posted on the project website, where anybody can go in a view it.

*Q35: How many people are on this call? Thank you – Mike C*

Mark Rielly, National Grid Counsel

At its peak it was 77, currently it is around 68.

*Q36: The presentation cited other similar cables in Mass, Rhode Island and New York. What percentage of these cables are run through residential neighborhoods? – Jad Stella*

Tim O'Leary, Project Manager

I don't have a percentage of what its run through, it's a combination of urban and residential settings, which is typical city development, residential and urban commercial settings.

Mark Rielly, National Grid Counsel

Right, and the project next door, the Salem cable project, was a very similar project to this. It did run through residential areas of the city. Generally, when we have more densely developed areas, its often better to go underground because trying to get overhead rights, and obviously installing structures to support a transmission cable is very difficult and unsightly. But I don't have a number, I don't think we keep that data.

*Q37: Where are the results from your EMF study at peak operating load? How often will this line be run at peak load? – M D*

Sinan Ashkouri, Engineering

Unfortunately, I do not [have an answer regarding when the line will be run at peak load], but that is something we can take offline and provide back an answer about on our project website

Mark Rielly, National Grid Counsel

And Dr. Bailey, did you study peak loading or average loading?

Dr. William Bailey, Principal Scientist

We studied both, and as you might expect the cables would not be operating at peak loaded, except for at limited periods of time. We're talking about days, hours, and for them to fully function they have to be able to take on variations in power from ordinary plant sources, and sometimes emergency needs. In our EMF report, we have calculations in those peak values and appendix, and in table 2b it gives those values. So, for example, at 25 feet the value under peak loading is given at six milligauss. Again, this is still a very tiny fraction of the 2000 milligauss allowed limit under the ICNIRP guideline for public exposure.

*Q38: The current preferred route goes down a route that already has multiple underground utilities (gas, water, sewer, etc.), has a underground rock shelf, and has 100s of homes within 5-15 feet of the roadway. That seems like a significant effort, especially if you are to keep the line 6+ feet deep and 20+ feet from residences. How is the effort to go through the MBTA right of way more significant than the effort needed to go through the streets? (Please address schedule, cost, impact on residences, etc.). Thank you. - Eric Boeker*

Tim O'Leary, Project Manager

Great question. No matter where you go in the city, there's utilities and there's density of the utilities, and all the analysis that was done as part of the routing selection of the course of a period of time well prior to this. Everything as looked at from utility density to impacts on wetlands, cultural, archaeological, pollution, impact on humans, traffic patterns, sensitive areas, water in the

ground, to tree rates. There is just so much that was looked at, and no matter where you go, in an urban setting in eastern Massachusetts, there's a lot in the streets. And some streets are denser than others. So, it's a great, valid point, to find the street that doesn't have much for other utilities where its municipal water, sewer, natural gas, is a challenge. So we realize that and during construction that all will be taken into consideration by the contractor. The contractor working on this project is very familiar with urban density and the different utilities that are in the construction, in the street [currently] existing.

Sinan Ashkouri, Engineering

And I would just like to add that there are parts of the MBTA right of way that are just very narrow where it would be very difficult for us to even install our own duck bank, let alone the manholes that we would have to install on the route. There is just not enough space on either side of the tracks for us to install or duck bank without having creating risk to reliability or being outside of the railroad right of way just is not feasible in this location. In terms of construction, we would be delayed, it would take at least double the time to go along the MBTA right of way. We had a few issues with getting the proper support for this recent failure that we had in Beverly in April, every step was a difficult one and it took a long time to address the failures that we had this past year. So, I can speak from experience that this is not the easiest place to be working, along the MBTA right of way.

*Q39: What are next steps and upcoming milestones for this project? – Mike C*

Tim O'Leary, Project Manager

Getting the rest of the permitting, everything on the back end, ordering materials and ramping up on our resources. Starting in Salem and going into Beverly at some point in the future is an ongoing process.

*Q40: In residential areas, what will be done to avoid interruptions, intended and unintended, to the current underground utilities, water, sewer and gas? - Kathy Doane*

Tim O'Leary, Project Manager

People should always be concerned about their neighborhoods and the contractor of choice here that we're utilizing is very familiar [with this work]. They have to take steps to locate every utility that in the ground, steps to secure them or replace them if needed at some point or relocate them if needed at some point. So, all those steps will be taken. That's why a lot of folks will ask "why does it take so long to dig that hole?" Well, there are a lot of utilities in that [hole] and they've got to take the proper steps, not just for the community's safety, but for employee safety and to make sure that everything continues to keep running, water, sewer, natural gas, that you expect every day as part of your lives. So those steps are an ongoing process during construction of this nature.

*Q41: Will this new residential high voltage power line duct bank and cable have additional voltage/cables passing through it in the future as electricity needs rise in the future? - J. D'Amato*

Sinan Ashkouri, Engineering

No, we are only installing the needed faculties for this particular cable system.

Mark Rielly, National Grid Counsel

Similar to my prior comment about upgrading to a different higher voltage, if we were to add in a new additional line adjacent to it, that too would be a jurisdictional project needing review by the citing board so long that it is above 69 kV.

Q42: How can you have a proposed route without distance data? - Michele Green

Tim O'Leary, Project Manager

I don't know [If this question means] the distance that the cable will be running, which is approximately 3.7 miles, from Wake St in Salem up to the east Beverly substation.

Q43: *I am having a hard time believing that a 44B company can't come up with a way to get the necessary easements and work with the MBTA to run the cable in the same place as the current cable. Please explain in more detail. – G C*

Tim O'Leary, Project Manager

One of the things that we talked about before was that the currently cable has to stay in service, to service properly all the customers in the Cape Ann area while the construction of the replacement cable is ongoing. You can't take that cable out of service for three or four years. And that's just in certain areas of the MBTA right of way. In other areas there is no room to actually construct a manhole and duck bank series in the land there currently that is in any way safe.

Mark Rielly, National Grid Counsel

And to the extent that it's a reference to getting the necessary easements, I don't know if that's just from the MBTA or also from abutting residences which is something that we would have to acquire property from, from the residences adjacent from the MBTA right of way and avoiding that was a factor. We don't do that lightly and we rarely do that at all. That is something we want to avoid.

Q44: *What street addresses will the residential high voltage power line manholes be located in front of? Aren't these manholes located every 1,500 ft? - J. D'Amato*

Tim O'Leary, Project Manager

I don't know if you are referring to Beverly or Salem, but in Beverly there is a manhole on Broadway, up across Cabot there's a manhole that will be going on Thorndike. There's one on Hill Street that's approximately right around 81 to 83 Hill Street. down on East Lothrop Street around 203, we swapped up in that vicinity right before I think it's on Smithson Drive. And then over on to Cross Lane, around 55 Cross Lane, after the Cavendish Square area there'll be a manhole as well. And then on to Boyles St, which will enter into our substation. For Salem, the manhole locations will be right on Wake St, right outside or new substation we are building, over on to Grid St as well, prior to going underneath the Veteran's Memorial bridge.

Mark Rielly, National Grid Counsel

There was a previous question about the availability of the detailed construction drawings and again we'll need to consult with the city about their concerns but perhaps we could resolve those, maybe we would post those drawings to the website, if not then maybe we could post some modified version of that that eliminates what the city is concerned about. So, we can take that away and think about that.

*Q45: What will the maintenance of this project look like? Will the streets have to be dug up again to maintain? – Michele Green*

*Sinan Ashkouri, Engineering*

For the maintenance of the new line, there will be no digging up of the streets. All the maintenance will be accessed through the manholes that we will be installing. Which is really the convenience piece of it. So, we can enter and exit the manholes without having to dig up any of the streets.

*Q46: What guarantees can you give if our property values plunge because of the public perception that magnetic radiation has made this unsafe for families? - Timothy C Averill*

*Mark Rielly, National Grid Counsel*

We wouldn't provide compensation like that. We don't do that in the normal course. Obviously, our projects are impactful not just on EMF but it could be visual, things like that, and if we started compensating people for every real or perceived impact that they had then all of our projects would be massively more expensive, and all those costs would flow down to the customers. We do not compensate, we don't buy properties, except in really extraordinarily circumstances. I think it has happened in the past, and I would add to that, we've actually been involved with projects where we've had witnesses testify that have studied these questions, whether transmission lines diminish property values. The answer is no, again except in really extreme circumstances like overhead lines immediately adjacent to the residences.

*Q47: Will residential properties have restricted access during construction and if so, what will the typical duration be? - Rick Plenge*

*Tim O'Leary, Project Manager*

There will be some restricted accesses, very minimal, as we move up the street we work with each business or residential owner to make sure they have proper access to and from their driveways or their businesses. There are times that where there may be a little bit of a delay if we're digging right in front of a driveway there obviously will be a tome of communication prior to that, and well work as well as we can within the boundaries of the hours that we're allowed to work in the street s, and at that time there have been occasions were someone will come out and say "I need to get out" and it will take a few minutes. It's not going to be two minutes, it might be five or ten, for the crew to be able to clean up, get some sort of a plate down, or provide an avenue of access in and out of the driveway. So it depends on what your definition of an inconvenience is. Yes, it'll be a little bit of an inconvenience, with any construction in the street, trying to get in and out, whether is right in front of your driveway or a little bit up from it, but all of our sites will have police officers there to help direct traffic, help direct folks in and out, and then if we need to put some sort of a temporary plate to provide access to and from when you need it, because that is your place or business or place that you reside, we'll work with you to provide that. There's no cookie cutter answer, every single location is a bit different, and everyone's needs are a bit different for timing. Our contractor for national grid who's doing the construction will work with you as best as they can and we'll get the police department involved as well to help with the traffic mitigation to get you in and out or your customers in and out of your business.