



September 14, 2017

Jonathan Idman, Chief Regulatory Officer  
Cape Cod Commission  
3225 Main Street  
Barnstable, MA 02630

Re: Sagamore Line Reinforcement Project - Western Segment, Phase III,  
Development of Regional Impact Exemption Application

Dear Mr. Idman:

On behalf of Colonial Gas Company d/b/a National Grid (the “Company” or “National Grid”), the purpose of this letter is to address the concerns expressed by the Towns of Sandwich and Barnstable (the “Towns”) in their letter to the Cape Cod Commission (the “Commission”), dated September 11, 2017, relating to the Company’s proposed installation of approximately 2.2 miles of 20-inch diameter coated-steel natural gas pipeline along, in and under Service Road beginning at Chase Road in East Sandwich and extending easterly to the crossing of Service Road and the Eversource transmission right of way in West Barnstable (the “Project”).<sup>1</sup> In the Towns’ letter, the Towns request the Commission’s “assistance in advancing a mutually acceptable project that meets the goals of both National Grid and the Towns of Sandwich and Barnstable.” Notably, in the Towns’ letter, the Towns do not explicitly oppose the Company’s Project, nor do the Towns argue that the Commission should deny the Company’s DRI Exemption Application.

The Towns, however, do make a number of assertions that the Company wishes to address on the written record of this proceeding. Among other assertions, the Towns state that they prefer that the gas pipeline be located “in the northerly layout outside of the road pavement” and not in the alignment proposed by the Company in part because, according to the Towns, if National Grid proceeds with its proposed alignment for the Project, the monetary impacts to the Towns would be costs “in excess of \$15,000,000.” The Towns also suggest that the proposed alignment for the Project represents “a change” from what is “currently permitted.” Each of the Towns’ assertions will be taken in turn below.

With respect to the route alignment proposed by the Company, the Company has attempted to do as much as possible at each turn to work constructively with the Towns. The Company began discussions with the Towns of Sandwich and Barnstable regarding the layout for Phase III in April of 2016 (please see SLRP Western Segment Phase III DRI Exemption Application Table 2-2, which is appended hereto for reference as Attachment

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<sup>1</sup> The Company submitted its Development of Regional Impact (“DRI”) Exemption Application for the Project to the Commission on July 28, 2017.

A). In addition to multiple in-person meetings, the Company and the Towns also exchanged numerous written communications in an earnest and thorough attempt to develop a mutually agreeable alignment for the Project. The Project alignment proposed by the Company in its DRI Exemption Application does not represent “a change” from what is currently permitted; rather, it is entirely consistent with the plans approved by the Energy Facilities Siting Board (the “Siting Board”) and MEPA in 2006 and is also the result of numerous discussions with the towns of Sandwich and Barnstable during the course of developing the Company’s application as submitted to the Commission in July. By contrast, for the Company to adopt the Towns’ desired alignment off of pavement, the Company would need to submit an entirely new application to the Cape Cod Commission and would need to seek approval of the project changes with MEPA and the Siting Board. As the Company has explained to the Towns on several occasions, that would necessitate a very time and resource intensive process at the Siting Board and MEPA. With respect to the Siting Board in particular, a project change proceeding is a very time and resource intensive process and the Company does not believe it could satisfy the Siting Board’s standards on need and cost and environmental impact minimization for approval of a project change of the magnitude contemplated by the Towns. Please see Attachment B for additional information on the increased impacts of off-pavement construction that was presented by the Company to the Towns in March 2017.

In their letter, the Towns also state several other areas of concern related to the Company’s proposed in-road alignment, including “difficulty of installing future Town infrastructure, safety for Town workers, premature road failures, traffic disruption, and most importantly, significant costs borne by both Towns.” But, these issues are not new between the Company and the Towns. Indeed, starting as far back as July/August 2016, the Company and the Towns have discussed these issues and the Company has worked hard to satisfactorily address the Towns’ concerns to the extent practicable. To that end, please see Attachment C for a copy of Sandwich’s first letter to the Company on these issues and Attachment D for the Company’s response. The Company’s response addresses all of these concerns in a logical and reasoned manner. Moreover, to the extent the Towns have lingering concerns regarding the potential impacts of the Project on the Towns, the Towns will have the opportunity to explore those issues further during the local street opening permit process.

Finally, the Towns claim that the Project will result in \$15,000,000 of additional costs to the Town. Conspicuously absent from the Towns’ letter, however, is any explanation of the basis for the Towns’ calculation of the asserted monetary impacts. Without evidence or any explanation of these supposed costs, the Towns’ claims lack merit. As the Company has stated throughout its interactions with the Towns, the Company is and will remain willing to engage constructively with the Towns to address issues of concern *related to the Company’s proposed gas pipeline Project*. The Towns’ written comments reference concerns that are largely aimed at having the Company facilitate and pay for the Towns’ plans for a bike path along Service Road. As the Company has explained to the Towns on numerous occasions, the Company cannot agree to the Towns’ desires in this regard because it is unrelated to the Project and, as noted

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above, would necessitate a new application to the Cape Cod Commission, as well as a project change filing with the Siting Board and MEPA.

The Company sincerely appreciates the opportunity to address the Towns' concerns and will continue to work with the Towns of Sandwich and Barnstable to the extent practicable to achieve a resolution that will allow this important gas infrastructure project to commence.

Respectfully,



Lauren Peloquin Shea

cc: George H. Dunham, Town Manager – Sandwich  
Mark S. Ells, Town Manager – Barnstable

**Table 2-2 Consultations with agencies and municipalities**

<i>Date</i>	<i>Group and Topic</i>
April 15, 2016	1 <sup>st</sup> Town of Sandwich meeting with the Company, DPW Director and other officials to discuss Project Plans and construction strategy.
April 15, 2016	1 <sup>st</sup> Town of Barnstable meeting with the Company, DPW Director, and other officials to discuss Project Plans and construction strategy.
September 2, 2016	2 <sup>nd</sup> Town of Sandwich Meeting with same attendees and topic as first meeting to discuss updates
September 16, 2016	2 <sup>nd</sup> Town of Barnstable Meeting with same attendees and topic as first meeting to discuss updates
March 10, 2017	Joint Meeting with Town of Barnstable and Town of Sandwich on same topic
March 27, 2017	DRI Pre-Filing Meeting with CCC staff, Grid, and consultants
May 4, 2017	Dr. Eve Schluter of NHESP, Company, Epsilon (wildlife, MESA compliance) see Attachment I
May 2017	Door-to-door outreach with abutting property owners by the Company's Community Relations Department
May 2017	Notification to State Representative Randy Hunt of DRI Exemption Filing
June 1, 2017	Project Update Consultation Letter to Massachusetts Historic Commission (see Attachment J)
June 28, 2017	Company meets with Barnstable and Sandwich and Town of Sandwich's bike path design engineer to discuss if the Company could obtain Town Letters of Support for the Project prior to the DRI Exemption Filing.
July 20, 2017	Company has follow-up in-person conversation with Town of Sandwich DPW Director

## 2.7 Summary of Project Impacts

The discussion below provides a summary of Project-related impacts.

### 2.7.1 *Land Use*

Other than temporary construction-period restrictions, the Project will have no effect on existing land uses. The proposed main has been designed for installation within the existing roadway layout, beneath pavement or within 10 feet of pavement, and as such will only be located in previously-disturbed areas. Furthermore, the Project route parallels the route of the existing main.

### 2.7.2 *Wetlands*

The Project will have no direct impacts to any wetland resource areas. The Company has designed the Project to be constructed within the existing roadway layout beneath pavement or within 10 feet of that pavement, thereby eliminating any filling of or permanent impacts to wetlands. While no direct impacts to wetlands are anticipated in

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# Sagamore Line Reinforcement Project

## Western Segment Phase III

Sandwich and Barnstable, MA



March 10, 2017

Meeting with the Towns of Barnstable and Sandwich



# Introductions



## National Grid Representatives

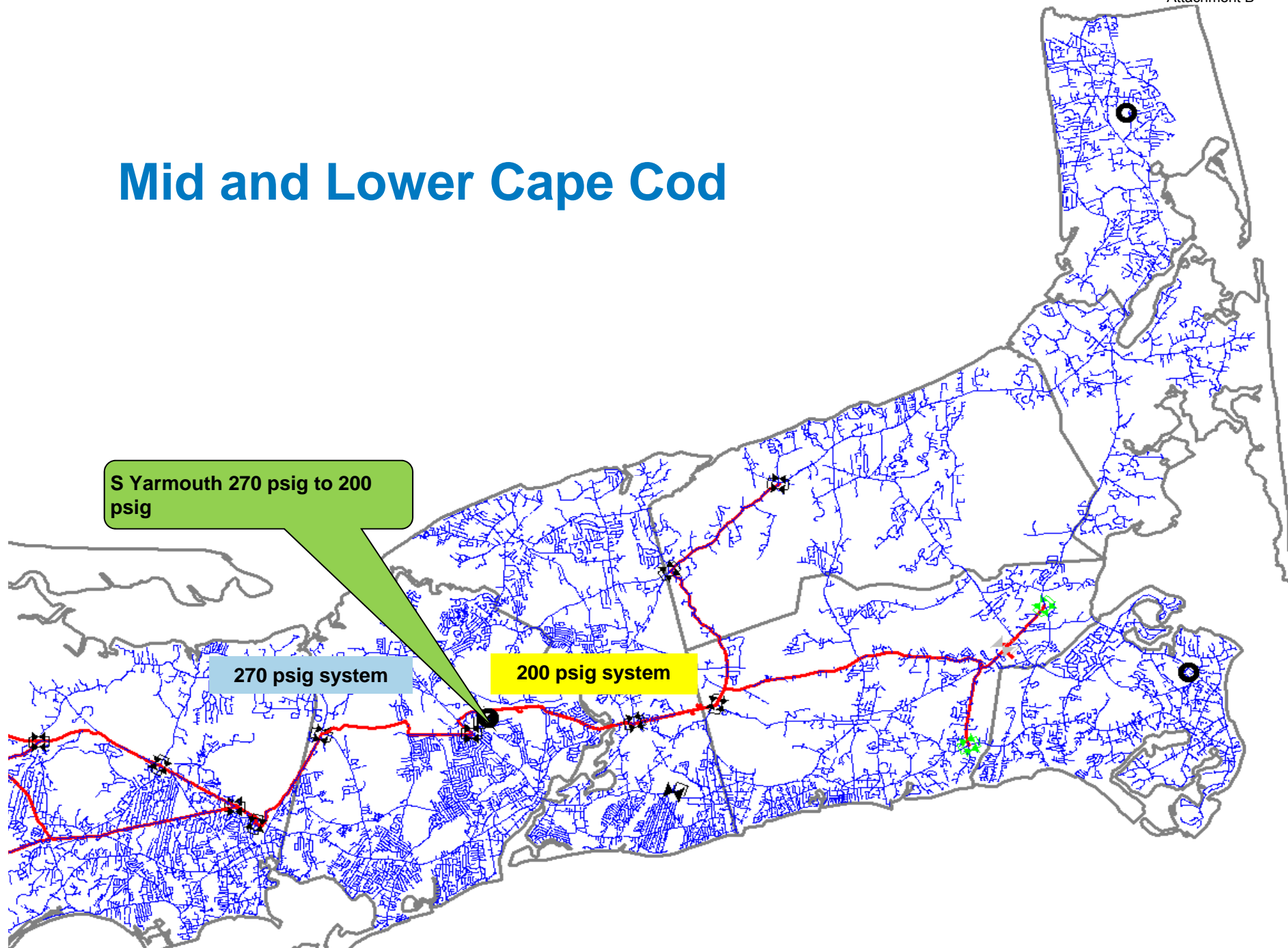
- Luke MacDonald, Project Manager
- Bess Gorman, Assistant General Counsel & Director
- Jeff Montigny, Manager of Engineering
- Thomas Mulkeen, Manager of Construction
- Bill Ciocca
- Dennis McCaffery



# Agenda

- ❑ Western Segment Project Need
- ❑ Cost Update For Phases I and II
- ❑ Phase III Description & Design
- ❑ Anticipated Permitting and Construction time line for Phase III
- ❑ Regulatory Requirements for Energy Facilities Siting Board Project Change Approval
- ❑ Comparison of costs and time lines of under pavement and off-pavement
- ❑ Conclusions
- ❑ Questions/Discussion

# Mid and Lower Cape Cod





# Sagamore Western Segment Project Need

- Purpose: Vital project for maintaining system reliability in mid and lower Cape. Reduces low-pressure issues on the existing system during winter conditions and increases pipeline gas supply on the Cape allowing for future growth.
- Phase III in combination with Phases I & II of western segment reduces LNG dependence at the South Yarmouth facility during winter conditions.
  - This means better reliability during winter/less need for LNG infusion
  - Fewer LNG trucks



# Cost of Phases I and II

## Phases I and II

- Construction grade estimate (+/-10% after EF SB project change approval in August 2014) was \$25.6M
- Current spend to date \$33.1M
- Approximate remaining spend \$.9M
- Projected total spend \$34M
- **Final Cost over 32% more than original construction grade estimate**



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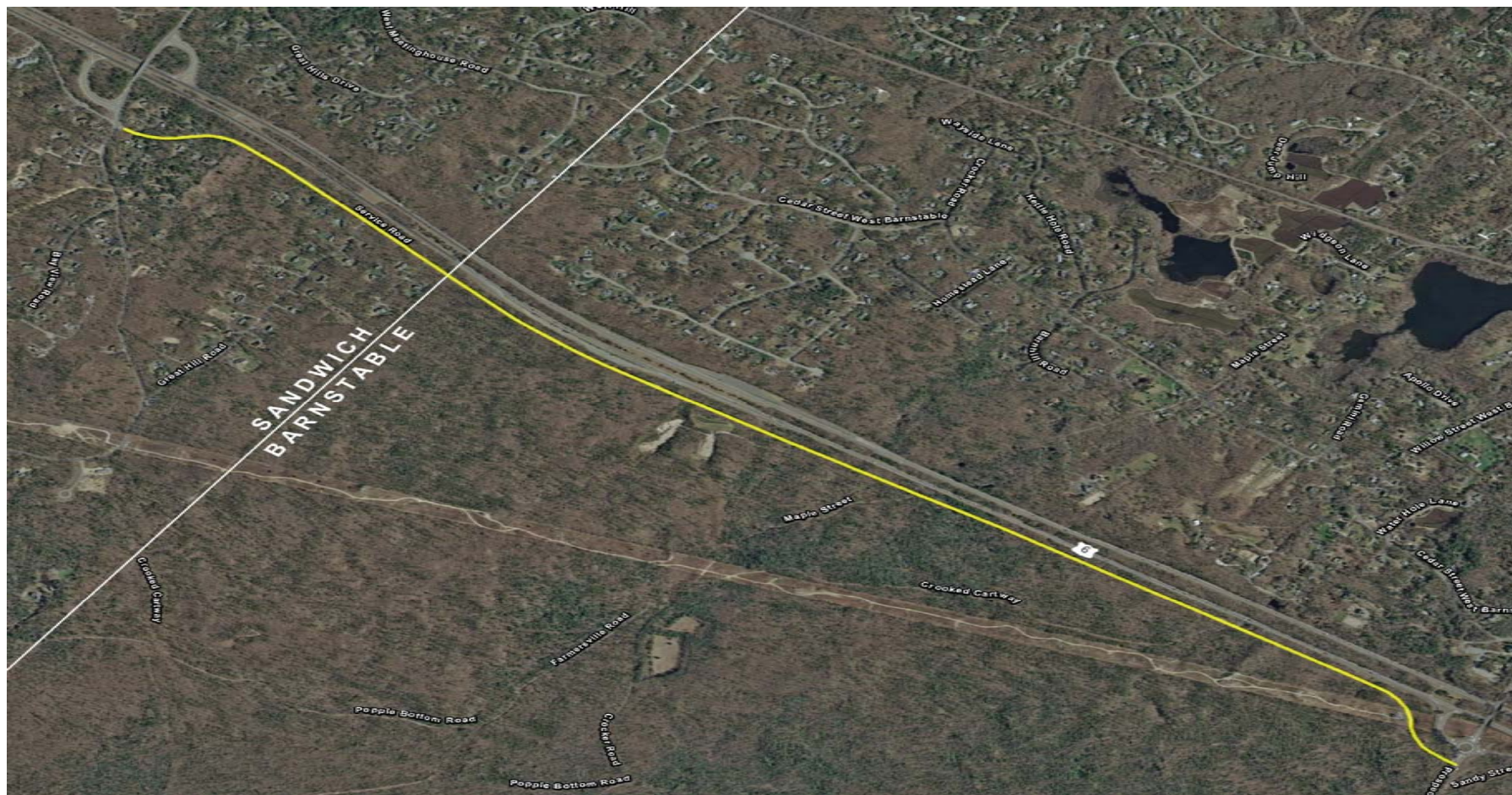
# Cost Differential



- Increase from construction grade estimate (+/- 10%) is attributable to:
  - Enhanced visual mitigation
  - Sheeting
  - Fill removal and backfill
  - Steel Plates
  - Site grading
  - Tree clearing
  - Utility pole support
  - TOY delays/plan deviations

# Phase III Location

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## Phase III Description and Design

- Total of 2.2 miles of new 20" steel - .4 miles in Sandwich and 1.8 miles in Barnstable
- National Grid received approval from the MA Energy Facilities Siting Board in 2006 to construct Western Segment under pavement with some tree trimming but no tree clearing or impact to rare species. Approval expires on December 2019
- Pipe has been designed for installation on right side under pavement in accordance with EFSB approval
- Currently no other utilities under pavement. Two gas pipelines on right side on shoulder heading east on Service Road. Will work with towns to ensure adequate room for future town utilities (otherwise it is Company's obligation to relocate to accommodate them), that repaving is conducted to towns' satisfaction and any other concerns



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# Sagamore Western Segment EFSB Permitting History



- On June 3, 2005, Company filed EFSB Application for 13.1 miles of new pipeline in three segments-western, middle and eastern- filed
- On May 17, 2006, the EFSB issued its decision approving the Sagamore Project including the Western Segment. Construction was to be “primarily within along the edge of pavement of existing roads and within roadway layouts.” Removal of scrub shrub can occur near edge of pavement with very minimal tree removal and no impact to rare species. **Construction on all segments must be completed by December 31, 2019.**
- On October 9, 2012 the Company filed a Notice of Project Change with the EFSB for Western Segment Phases I and II at the request of the Town of Sandwich move the installation off-pavement to avoid a water line and asbestos encased line and to create a cleared and graded area to accommodate the Town’s future construction of a multi-use path. Costs to go off-road at that time were estimated to be less than to construct in-road.
- On August 14, 2014 the EFSB issued approval of the Company’s Project Change request.



# Project as approved by EFSB: Permitting Remaining for Phase III

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Permit	Expected Duration from Date of Filing
CCC DRI Review: <b>6-12/2017</b>	Up to 6 months
Local Road Opening Permits/GOLs: <b>1-3/2018</b>	1-2 months
Public Shade Tree Permit (if needed for possible tree trimming) <b>1-3/2018</b>	1-2 months



# Anticipated Phase III Timeline for Project as Approved by EFSB



- Design: 10/16-5/17
- Permitting: Commence 6/17 with Cape Cod Commission (CCC) DRI Application
- Construction: Commence between Spring 2018-Fall 2018 depending on permitting. Could commence prior to Spring 2018 if CCC approval and local road opening permits obtained in Fall 2017.
- Complete: between 4-10/2019. Could be completed in Fall 2018 if permitting completed Fall 2017





# Representative Google Maps Street Photos of Phase III

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View west of Service Road near Great Hill Road.



View of Service Road east, in vicinity of Glacier Path.



Service Road, view east near entrance to Town of  
Barnstable Shooting Range.



View of Service Road east near Eversource transmission  
ROW and eastern terminus of Phase III.

# EFSB Requirement for Off-Road Construction as now requested



- ❑ EFSB Project Change: Company is required to demonstrate that the change is necessary and is superior to the approved project in terms of **cost, environmental impact, and reliability**. This requirement cannot be met
- ❑ Costs for Under Pavement vs. Off-Pavement
  - ❑ Now known added expenses for off-pavement include: additional environmental permitting, EFSB Project Change, engineering, grading, tree clearing, increased depth of main, visual mitigation for tree clearing, utility pole support (anything else)
- ❑ Environmental Impacts for Under Pavement vs. Off-Pavement
  - ❑ Tree clearing, possible impact to endangered species, wetlands
  - ❑ TOY restrictions (turtle, long-eared bat plants leave small window for clearing)

Company cannot meet EFSB standards needed for EFSB to approve Project Change due to now known costs and impacts incurred on Phases I and II.



# Shoulder/Off-Road Construction is Highly Challenging



- Approximately 3,000 feet of the route would require utility pole holding
- Approximately 50% of the route would require a narrow work area
- Some areas may require temporary retaining walls
- Slopes of Phase III are so severe that significant costs will be incurred. In Phase I and II Company constructed in-road in 4 locations due to severe slopes. Phase III has 10 locations of severe slope and cannot go in-road as reliability could be impacted if pipeline zigs and zags in that many locations over shorter distance



# Estimated Cost of Phases III

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## ■ Phase III

- Original In-road Estimate \$12.5M
- Revised In-road estimate \$14.3M to add curb-curb and berms
- Off-Road Estimate \$22.4 M
- Estimated cost difference from in-road to off-road is \$8.1M



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# Shoulder/ff-Road Jeopardizes Dec. 31, 2019 Construction deadline

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## Under Pavement

Permit	Expected Duration from Date of Filing
CCC DRI Review	6 months
Local Road Opening Permits/GOLs	1-2 months
Public Shade Tree Permit for possible tree trimming	1-2 months

## Off Pavement

Permit	Expected Duration from Date of Filing
EFSB Project Change	up to 2 years
CCC DRI Review	Up to 6 months
Local Road Opening Permits/GOLs	2 - 4 months
Public Shade Tree Permit for Possible Tree Trimming	2 - 4 months
USFWS*	
NHESP*	
MEPA	

- EFSB approval for notice of project change would not be filed until Late Summer/Fall 2017. However, approval is not likely. Even if we receive approval it won't be received before August 2018 and could be as late as June 2019. Afterwards will need to go for local permits
- Endangered species review for off-pavement option opens possibility of lengthy Time of Year restrictions for clearing activities - adding further delays and expenses to the project timeline.





# Conclusions



- ❑ The Company cannot meet the EFSB requirement that the project change is necessary and that the off-road alignment is the least cost option with the lowest environmental impact
- ❑ Costs of additional environmental and EFSB permitting, tree clearing, visual mitigation, grading, slopes/retaining walls, sheeting, guardrails, steel plating, and repaving make off-road alignment in Phase III even more costly than in Phases I and II with greater environmental impacts than the approved under pavement installation
- ❑ Based on recent experience with Phases I and II, going off-road would significantly delay permitting and construction schedule and jeopardize the ability to meet the December 31, 2019 construction deadline. Permitting and construction of off-road much more complex and subject to delays due to TOY restrictions and grading



# Questions and Discussion

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# Western Segment Phases I and II

## Local Permitting History



### Cape Cod Commission

- After a 2011 preliminary DRI submittal, National Grid redesigned the in-road alignment in response to discussions and written comments from Town of Sandwich officials and the Sandwich Water District.
- In October 2012, the Company filed a new DRI application with the modified off-road alignment requested by Sandwich for Phases I and II
- In February 2013, CCC approved Phases I and II

### Town of Sandwich

- On September 25, 2014, Sandwich Board of Selectmen approved tree removal and road opening permit
- In March 2015 Sandwich DPW issued Road Work/Trench permit





# Western Segment (Phases I and II) Construction Schedule



- Late September 2015: commenced clearing and construction which was delayed from Spring 2015 due to Time-Of-Year restrictions for long-eared bat
- May 2016: Completed construction of Phase I
- July 2016: Completed Construction of Phase II
- August 2016: Installation of pigging launcher
- December 2016: Phase I & II Gassed in
- May 2017: Complete ROV work and Site Restoration





July 15, 2016

Bess Beikoussis German  
Assistant General Counsel and Director  
Legal Department  
National Grid  
40 Sylvan Road

Subject: Sagamore Line Reinforcement Project - Western Segment Phase III

Dear Ms. Beikoussis German, *BESS*

Thank you for meeting with the Sandwich Department of Public Works (DPW) on July 12, 2016 to present the Sagamore Line Reinforcement Project - Western Segment Phase III. This letter is in response to National Grid's two options for the installation of the Phase III gas pipeline on the Service Road in Sandwich: the "In-Road" and "Off-Road" options. Please note this letter is on behalf of the Town of Sandwich and does not represent the Town of Barnstable's opinion on this matter.

The Sandwich DPW has worked closely with National Grid for the past 8 years on Phase I and II to establish an understanding of the Town's policies, regulations and preferences regarding utility installations. Consistent with our requirement for Phase I and II of the gas pipeline project, and further emphasized in our recent meeting, the Town remains firm in its position that National Grid locate the extension of the pipeline outside of the road surface for Phase III (Chase Road to the Barnstable Town Line). Below are comments on both options and the Town's justification of our preferred "Off-Road" option:

Phase III In-Road Option (National Grid Preferred Option)

The DPW's comments regarding installation of the gas line under the Service Road are as follows:

- Per the DPW's Road Work Permit, the cutting (excavation) of public roads is not allowed. Utility installations must be bored underground. This policy is applied to all utility companies in an effort to minimize premature deterioration and/or permanent road damage. The only exception is roads in poor condition anticipated to be repaired by the

DPW in the near future. The Service Road is currently in good condition. Changing the Town's position from "Off-Road" for Phase I and II to "In-Road" for proposed Phase III would not be consistent with past policy.

- Space under public roads is reserved for Town utilities, such as drainage, water or future sewer lines. The area under the road is essentially for gravity flow utilities such as sewer and drainage that have to follow the road topography. Reserving the road for town utilities will be less costly to install and maintain for the Town than using the topographically challenging layout to the north of the road.
- The Town is better prepared to repair and maintain roads following its own public utility installation. Restoration, maintenance and "temporary ownership" of roads by private companies is problematic.
- National Grid has two gas lines on the southern edge of the Service Road. A private utility adding a third line near the road area, consuming more space, is not appropriate.
- Excavating in areas crowded with utilities is very difficult. Strict regulations regarding digging around gas lines would make excavating in the road that much more difficult for the Town, Water District and the Town's private contractors.
- Compaction of backfill materials following installation is problematic around crowded utility areas since compacting equipment cannot fit between the utility lines. This could create sinkholes.
- Installing or repairing drainage, water or other town utilities presents safety issues to town employees when working around gas lines.
- Once installed, gas lines are unlikely to be moved or relocated. Town utilities would have to be relocated first, creating service disruption and increasing costs.
- Gas lines require extensive inspection, maintenance and repairs. Road closures on the Service Road would be required, creating traffic flow and safety issues.
- The Sandwich Water District has also expressed concerns about a gas line located under the road, including but not limited to difficulty and costs of installing future water service lines under the gas line and risk to District employees working near the gas line.

#### Phase III Off-Road Option (Town of Sandwich Preferred Option)

The DPW recommends that the gas line be located north of the Service Road pavement based on the following reasons:

- The ten issues noted above related to the "In-Road" option will be eliminated.
- Public roads are laid out to reserve space for utilities. The Service Road has a layout (i.e., right-of-way) of 100 feet, wider than typical public road layouts. It is appropriate and wise planning to utilize layouts as they were intended, for utilities. Doing so will minimize disruption, costs, constant road repairs and future safety issues for the Town.
- Understanding installation of the gas line on the north side of Service Road would impact the vegetative buffer for residents, the DPW recommends that National Grid develop a vegetative mitigation plan, similar to Phase I and II. Appropriate plantings will help restore the visual and noise buffer while ensuring the long-term vegetative health of the corridor. The planting for Phase I and II is aesthetically pleasing and has received many positive comments from residents.
- The "Off-Road" option is consistent with the local, regional and statewide goal to provide a cross-Cape bicycle path from Bourne to Provincetown. National Grid's

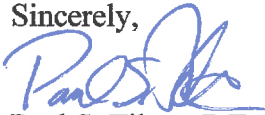
Phase I and II construction preserved and enabled the Service Road corridor to be a prime candidate for a future bicycle path, an important factor related to the State's recent \$5.8 million commitment to fund this bicycle path in Sandwich. The State's funding includes the Phase III section in Sandwich, giving more reason to continue the "Off-Road" option along the Service Road.

Based on the above, we trust National Grid appreciates the Town's position regarding our preferred "Off-Road" Option.

The Town of Sandwich has had a good working relationship with National Grid throughout the Phase I and II construction process and we look forward to continuing this relationship during Phase III. The Town recognizes that there are permitting challenges for the "Off-Road" option. However, it should be noted that Phase I and II were a good example of a private company working cooperatively with Town officials and residents in an effort to alleviate the impacts of important utility projects while meeting the goals of all those involved. Successful projects can change public perception of utility companies and possibly garner more support for future projects.

Thank you for your understating of the Town's position regarding this project and please contact me should you have any questions related to this matter.

Sincerely,



Paul S. Tilton, P.E.

DPW Director/Town Engineer

cc: George H. Dunham, Town Manager

**Bess B. Gorman**

Assistant General Counsel &amp; Director



August 10, 2016

Paul S. Tilton, P.E., Director and Town Engineer  
Department of Public Works  
Town of Sandwich  
500 Route 130  
Sandwich, MA 02563-2342

Re: Sagamore Line Reinforcement Project - Western Segment Phase III

Dear Mr. Tilton:

We appreciate you taking the time to meet with us on July 12 with the Town of Barnstable to discuss Phase III of the western segment of Colonial Gas Company's d/b/a National Grid (the "Company") Sagamore Pipeline project. We also thank you for your July 15 letter promptly responding to our discussion points from the July 12 meeting.

As we mentioned during the July 12 meeting, we have designed Phase III to be under pavement as was approved by the Energy Facilities Siting Board ("Siting Board") in its 2006 Decision. In reaching its decision, the Siting Board had evaluated other routing options for the western segment and concluded that locating the new pipeline along Service Road minimized impacts due to the temporary and minimal nature of the land resource impacts of the proposed pipeline along the preferred route. The Siting Board's determination of the temporary and minimal nature of the impacts was based on the proposed placement of the pipeline under or directly adjacent to streets. Therefore, as with Phases I and II, locating away from the edge of pavement would not be in line with the Siting Board's approval, because substantial tree clearing would have to occur and there would be impacts to resource areas, including rare species, which were not addressed by the Siting Board in reaching its decision in 2006. As with Phases I and II, the Company would need to obtain approval from the Siting Board to construct further away from the edge of pavement via a Request for Project Change. As you know from our experience with Phases I and II, this is a time and resource intensive endeavor and it is not certain that the Siting Board will approve the project change request.

In order to receive approval of the project change from the Siting Board, the Company would need to show that the revised alignment is necessary and there are no other options available that are lower in cost, or that properly minimize impacts to the environment. Your July 15 letter offered the Town of Sandwich's rationale for not allowing under pavement construction. We have discussed your concerns internally with the Company's construction and engineering experts, and we believe that we can address

Paul S. Tilton, P.E., Director and Town Engineer  
Department of Public Works  
Town of Sandwich  
August 10, 2016  
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your concerns, thus making under-pavement construction less harmful to the environment and lower in cost than the change to the alignment you have requested. I have copied your concerns below and provided initial suggestions that we can discuss further when we meet with you again in person to walk the route.

1. Per the DPW's Road Work Permit, the cutting (excavation) of public roads is not allowed. Utility installations must be bored underground. This policy is applied to all utility companies in an effort to minimize premature deterioration and/or permanent road damage. The only exception is roads in poor condition anticipated to be repaired by the DPW in the near future. The Service Road is currently in good condition. Changing the Town's position from "Off-Road" for Phase I and II to "In-Road" for proposed Phase III would not be consistent with past policy.

We understand your apprehension regarding excavation of public roads. Maintaining the integrity of public ways is a concern of all municipalities and we work closely with them to mitigate the impact of utility construction within their streets. The Company has worked well with Sandwich both for Phases I and II. As with Phases I and II, the Company will work closely with the Town of Sandwich and will be repaving curb to curb. The Company is also agreeable to using the Town's paving contractor, or paying for the Town's contractor to conduct the repaving under the supervision of the DPW, so that the work will be conducted in conformance with the Town's requirements and to the satisfaction of the Town.

2. Space under public roads is reserved for Town utilities, such as drainage, water or future sewer lines. The area under the road is essentially for gravity flow utilities such as sewer and drainage that have to follow the road topography. Reserving the road for town utilities will be less costly to install and maintain for the Town than using the topographically challenging layout to the north of the road.

We appreciate and concur with your need to have the ability to install town utilities such as drainage, sewer and water under the road in the future. We have underground utilities located all over Massachusetts in streets containing water lines, sewer and drainage. It is our understanding that, currently, no utilities are located directly under pavement along the stretch of Service Road to be used for Phase III. We have proposed a location under pavement that we believe will allow for any future town utilities. We hope to discuss this further with you and can make modifications to the alignment in order to accommodate the Town's concerns and leave room for future town utilities. If you currently have design plans, we would be interested in seeing them so that we can locate the gas pipeline in an appropriate location. We are aware that Barnstable may have future plans to install drainage, water, and sewer on Service Road and we are working with Barnstable on the pipeline alignment in order to allow for this

Paul S. Tilton, P.E., Director and Town Engineer  
Department of Public Works  
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anticipated future work. Similarly, we can work with you in the same fashion that we are collaborating with Barnstable.

3. The Town is better prepared to repair and maintain roads following its own public utility installation. Restoration, maintenance and "temporary ownership" of roads by private companies is problematic.

In order to address your concern we have offered in item 1, above, either to use the Town's paving contractor or to pay for the Town's contractor to conduct the repaving under the supervision of the town DPW so that the work will be conducted in conformance with the Town's requirements and to the satisfaction of the Town. With respect to your comment on the temporary ownership by private companies, a statutory paradigm exists that addresses the installation of gas lines by gas companies. Under M.G.L. c. 164, §§ 70 & 70A, National Grid is not a private company, but rather is a privately-owned public utility that engages in a public service. As a result, the legislature has created the ability for public utilities such as gas and electric lines to be installed within public ways. The statute does not create an ownership right, but does create the natural synergy of using public ways for public reasons such as the provision of gas and electric service<sup>1</sup> to residences and businesses. Section 70 requires a gas company to obtain the permission of the relevant board of selectmen before installing gas lines within the public way. Section 70A provides a gas company with the ability to seek the approval from the Department of Public Utilities if the approval to locate within the public way is either not granted within three months, or denied.

4. National Grid has two gas lines on the southern edge of the Service Road. A private utility adding a third line near the road area, consuming more space, is not appropriate.

As we noted in our response to item 2, above, we are not aware of any utilities that currently are under pavement on this section of Service Road as the Company's two gas lines are alongside the edge of pavement. We are committed to working with you to ensure there is adequate room under pavement for any future Town utilities such as water, sewer and drainage. We are experienced in doing this in areas that are more congested than Sandwich and want to work collaboratively to address your concerns.

5. Excavating in areas crowded with utilities is very difficult. Strict regulations regarding digging around gas lines would make excavating in the road that much more difficult for the Town, Water District and the Town's private contractors.

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<sup>1</sup> The relevant statute for installation of electric infrastructure within municipal streets is found in M.G.L. 166, §22.

Paul S. Tilton, P.E., Director and Town Engineer  
Department of Public Works  
Town of Sandwich  
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Currently, no utilities exist under pavement on Service Road along the stretch to be used for Phase III. The Company can discuss with you the regulatory requirements for clearance near gas lines for potential future Town utilities and will design the line such that there will be satisfactory clearance to allow for the installation, repair and replacement of any future Town utilities. As noted above, the Company is experienced in doing this in areas that are more congested than Sandwich and we want to work collaboratively to address your concerns.

6. Compaction of backfill materials following installation is problematic around crowded utility areas since compacting equipment cannot fit between the utility lines. This could create sinkholes.

The Company has other gas lines under pavement in other parts of Sandwich and is experienced in doing this in other areas that are more congested than Sandwich. The Company is confident that the work performed in connection with Phase III would not create sinkholes, as installing public utilities under pavement is a substantial part of our business. We have standard specifications for backfill and compaction that we provide to our contractors on all our underground utility projects. If, in the rare instance a sinkhole develops, the Company will be responsible for eliminating the sinkhole and repairing the roadway at its sole cost.

7. Installing or repairing drainage, water or other town utilities presents safety issues to town employees when working around gas lines.

We will be providing as-built plans for Phases I, II and III to the Town of Sandwich. As required by law, the Town will also have to request DigSafe utility mark-outs 72 hours prior to excavating. The provision of as-built plans and the protections afforded by DigSafe will protect against the concerns you raise. As a further protection to address your concerns, the Company can provide training when needed for the Town's construction crews.

8. Once installed, gas lines are unlikely to be moved or relocated. Town utilities would have to be relocated first, creating service disruption and increasing costs.

The Town has the ability to require relocation of the gas line at the Company's expense if needed for Town utilities or a Town project that cannot be designed around the gas line. For that reason, the Company wants to work with the Town to ensure that the location of the proposed line will allow for the installation of future Town utilities.

9. Gas lines require extensive inspection, maintenance and repairs. Road closures on the Service Road would be required, creating traffic flow and safety issues.



Paul S. Tilton, P.E., Director and Town Engineer  
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For the most part, all inspections of the proposed gas pipeline will be conducted utilizing in-line inspection techniques. Excavation is not required and traffic is not disrupted.

10. The Sandwich Water District has also expressed concerns about a gas line located under the road, including but not limited to difficulty and costs of installing future water service lines under the gas line and risk to District employees working near the gas line.

Please see the responses to items 2, 4, 5 and 7, above.

In conclusion, we believe we can address all your concerns as they are matters that we encounter frequently when installing or replacing infrastructure under pavement. We believe that under pavement construction is feasible and is the lower cost option with minimal impacts to the environment. Installing off-road as you have requested would require substantial tree clearing, regrading and impacts to rare species habitat. For Phases I and II, the impacts to rare species habitat resulted in time-of-year restrictions for clearing trees between October 31-April 1 and then again from April 15 through September 30. For that reason, once we had received the final street opening permit for Phases I and II in March 2015, tree clearing had to be delayed for at least six months due to the time of year restriction. It is not yet known what time of year restrictions will apply to Phase III; however, any time of year restrictions that are imposed when going off-road have the potential for creating substantial delays.

We would like to continue our good working relationship with the Town. To that end, we would like to schedule a time for Company representatives to walk the route and discuss the under pavement and off road options in more detail.

We sincerely appreciate and understand the Town's concerns and would like to work with the Town of Sandwich to achieve a resolution that will allow this important gas infrastructure project to commence. I look forward to our further discussions.

Respectfully,

Bess B. Gorman