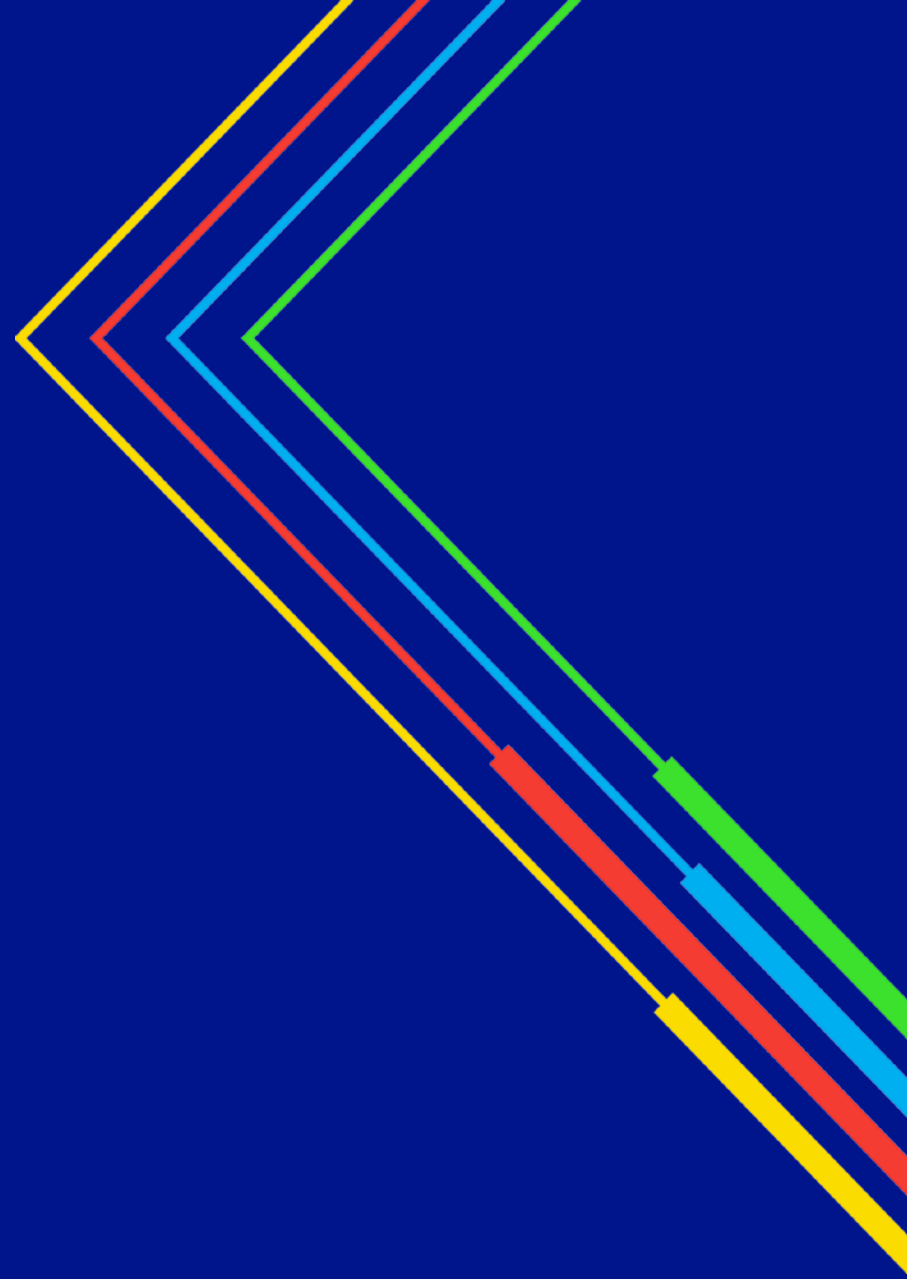


# IslandReady: Construction Plans for L8 Feeder

**Nantucket, MA**  
June 26, 2019

national**grid**



# Introductions

## National Grid Team

Joe Cardinal, Community & Customer Management

Danielle Aretz, Stakeholder Management

Adam Wilding, Project Management

Joe Henry, Distribution Planning

Fabio Santos, Distribution Design

Steve Holdgate, Nantucket Operations

Brendan O'Neil, Nantucket Operations

# Agenda

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# Project Description and Need

## Scope

Install new 13.2kV feeder to Milestone Road (101L8)

- New feeder will connect with existing network on Milestone
- Scope is comparable to typical overhead maintenance operations

## Purpose

Utilize full benefit and capacity of Bunker Road battery system and generator, as well as:

- Increase capacity for east side of island
- Improve switching ability
- Reduce potential for outages on other feeders, which serve critical facilities (L2 – sewage treatment; L4 – hospital; L7 – airport)

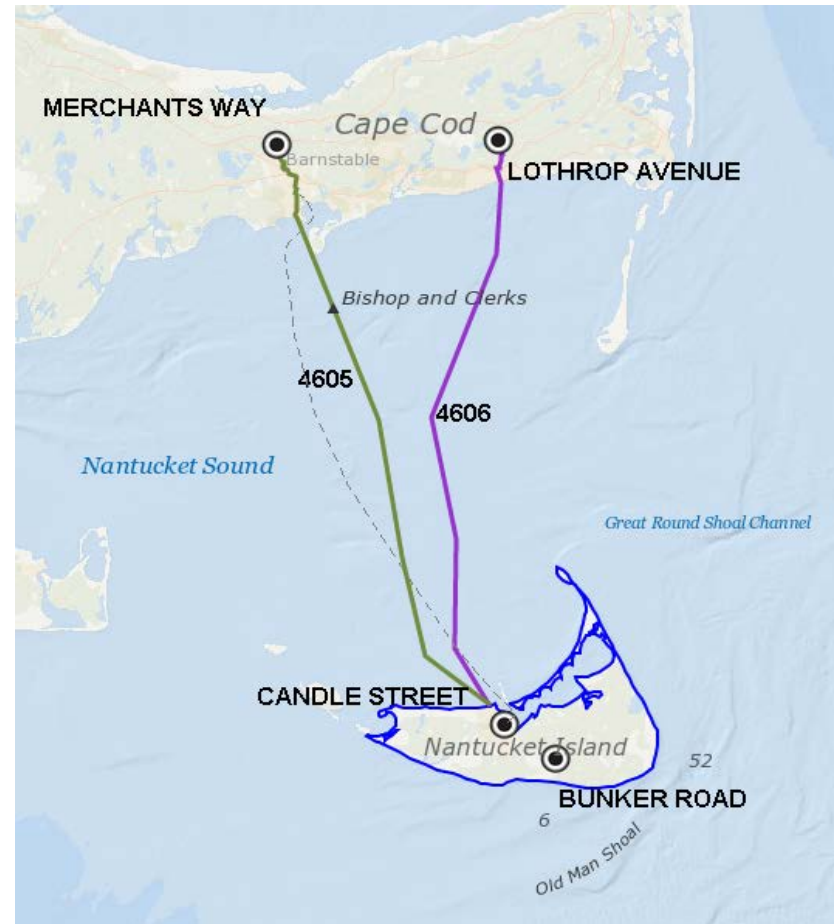
Nearing Summer capacity ratings: the wire could potentially fail and outages would result until repairs are completed

New L8 feeder alleviates summer demands on L2, L4, and L7

# Transmission Network

## Nantucket fed via submarine cables from mainland through Candle Street

- Island currently fed through two submarine cables from mainland
- Submarine cables connect to the Island at Candle Street Substation
- All of Nantucket's electricity infrastructure runs through Candle Street



# Explored Options

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## Underground (In-road)

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- All options have significant constructability challenges
- Operation of circuits deep underground = safety, reliability issues
- Significant cost of construction to meet federal standards
- Significant traffic impact (in-road excavation)
- Multi-year construction timeline

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## Harbor HDD

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- Very significant cost of construction to use HDD method
- Required splice in harbor could impact reliability
- Required environmental permits unattainable
- Significant traffic and harbor impact (in-road excavation, drilling in harbor)
- Multi-year construction timeline

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## Overhead ✓

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- Ability to utilize existing infrastructure
- Most cost-effective option
- Most-expeditious construction (~ 6-7 months)
- Modest traffic impact
- Little to no visual impact upon completion (improvement in some locations)
- Faster repair times

# Construction Elements

## Poles

There are 71 existing poles over 1.5-mile route

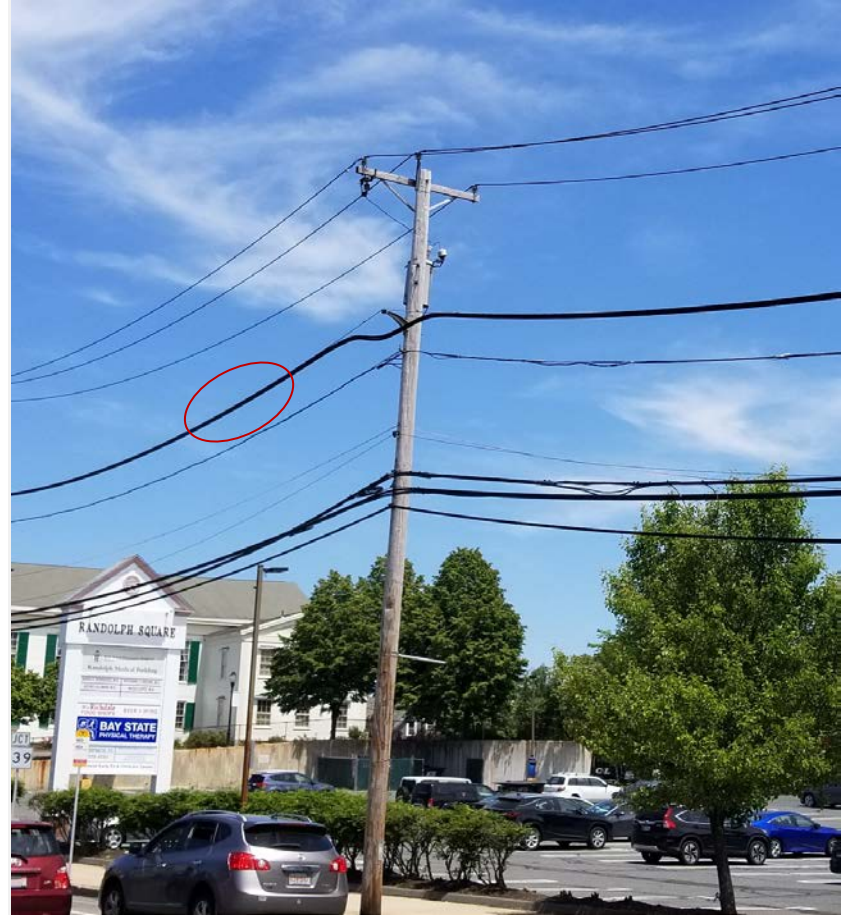
- Re-using 44 poles
- Installing 27 replacement poles (same locations as existing)
  - 16 will be slightly taller to meet clearances/standards (40' → 45')

## Aerial Cable

Provides needed capacity, reliability

Bundles cables together, reducing number of electrical wires in many locations

# Overhead Existing vs. Proposed



**Existing**

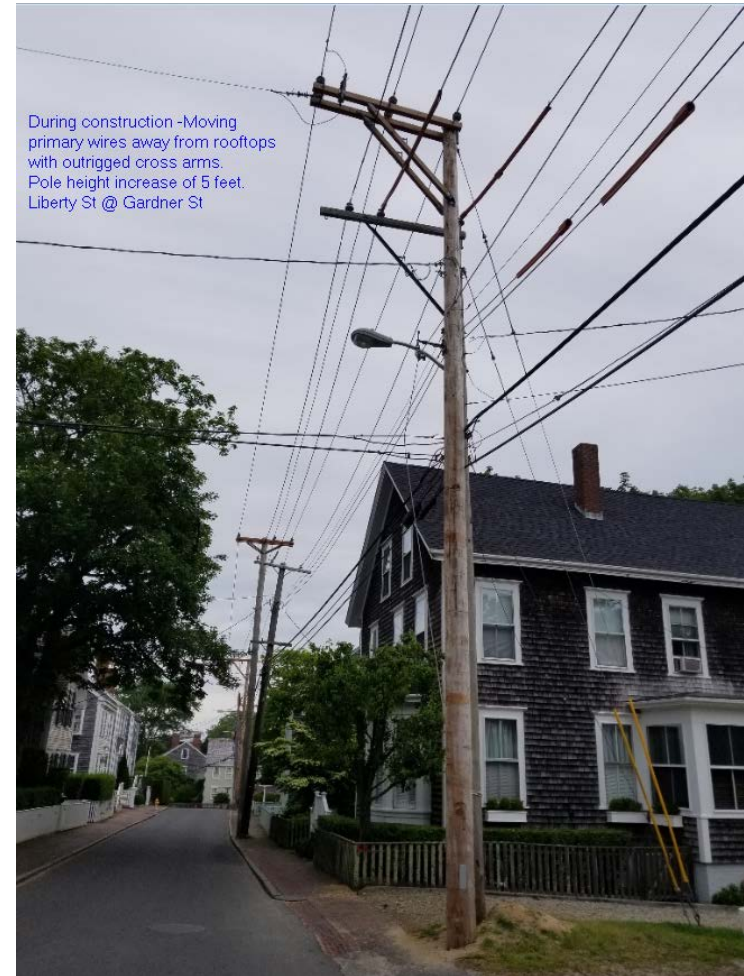
**Proposed (example)**



# Pole Comparison

## New poles required to meet standards and clearances

- Replacement poles are needed to meet current federal electrical standards, and to provide necessary clearances
- Replacement poles provide greater durability and reliability (less susceptible to damage, particularly from wind)
- Pole size comparison:
  - Existing = approx. 40'
  - Proposed = approx. 45' (and a couple of inches thicker)
- Exploring process for faster removal of old poles (limit duration of “double poles”)



# Project Route

## Minimal visual impact, connection to existing infrastructure

- **Aerial cable:**
  - Replaces three vertically-oriented wires (slightly thicker, singular wire)
- **Upgrades:**
  - Top three horizontally-oriented wires are replaced with upgraded versions
  - Lower three vertically-oriented wires converted to one triplex wire (bundled, appears as one wire)



# Traffic Management

## Traffic Management Plan

Intended to limit impact during construction

Developed in collaboration with Nantucket officials (town, police, fire)

Potential conditions include:

- Maintain one lane of travel (alternating traffic) on two-lane roads
- Temporary closures on narrow roads (e.g. East Dover, Back Street, Weymouth Street @ Union Street)

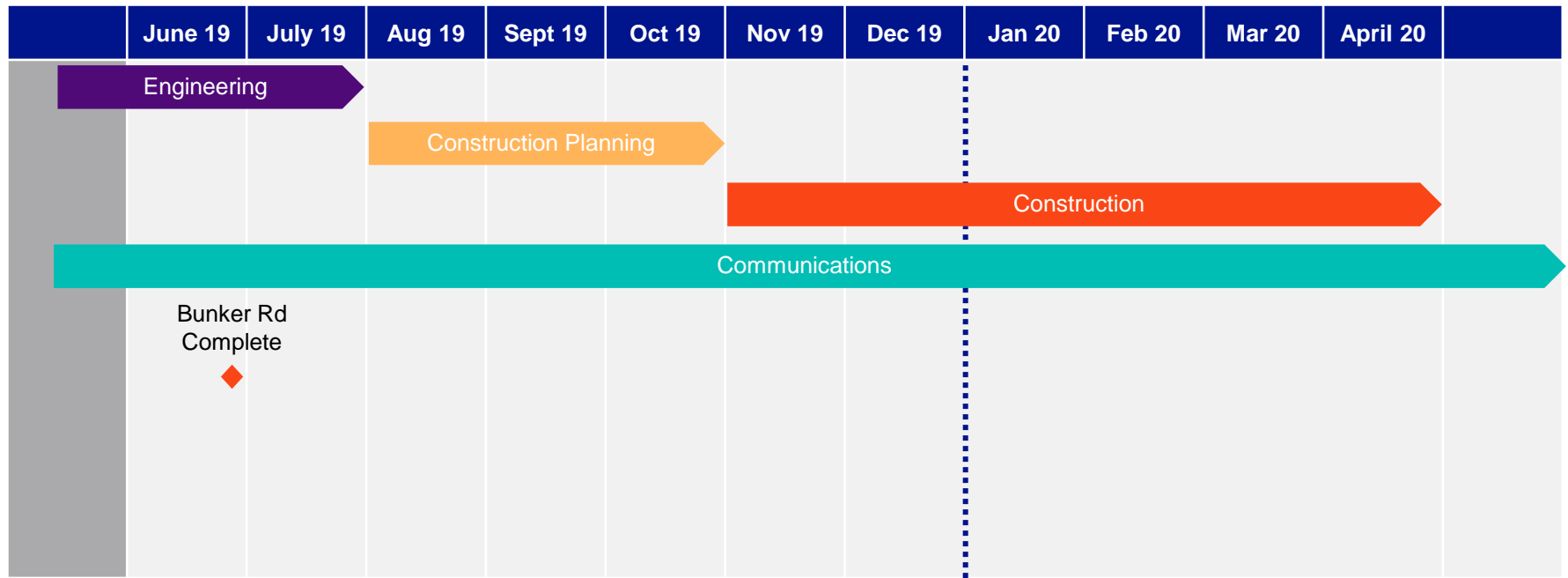
Police detail likely at all times (exact plans TBD in collaboration with NPD)

# Timeline

Fall 2019 (November) → Spring 2020 (April)

Condensed construction timeline is significant benefit of overhead solution

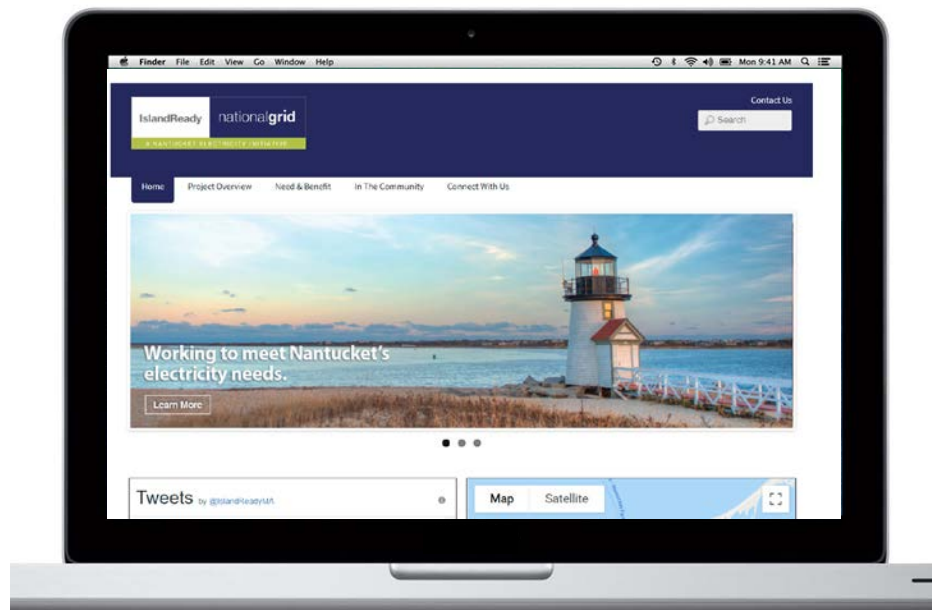
No impact to, or need to bridge, summer seasons



# Outreach

## Comprehensive Communications Plan

- Proactive outreach to project abutters and town officials re: project updates
- Door-to-door outreach, one-on-one meetings
- Public Information Sessions
- Maintain regular channels of communication (web, email, phone, Twitter)
- Provide project updates via Inquirer and Mirror (editorial + paid ads)
- Participate in Nantucket events (e.g. Nantucket Island Fair)



# Connect With Us



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508-257-5135 or 888-713-8448



[IslandReadyNantucket.com](http://IslandReadyNantucket.com)



[@IslandReadyMA](https://twitter.com/IslandReadyMA)

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# Appendix

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**01**      Underground Risers

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**02**      Prospective Underground Plan

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# Underground Risers

## Challenges w/ Relocating Riser Poles

- Several of the poles along the route have underground risers (where utilities transition from underground to overhead)
- Relocating a pole from its current location also requires relocating all of the risers
- Relocating risers requires extensive sidewalk and roadway excavation
- Proposed pole replacement plan allows for risers to remain in location, and be reattached to new pole
- Pole relocation also requires design changes, in many cases - changing the angle of lines can require additional support equipment (e.g. guy wire or push pole)

