

Exploring Solar Panel Installations in Rhode Island Highway Rights-of-Way

Presented to:

The Rhode Island Legislative Committee for the
Placement of Solar Panels on Interstate Highways

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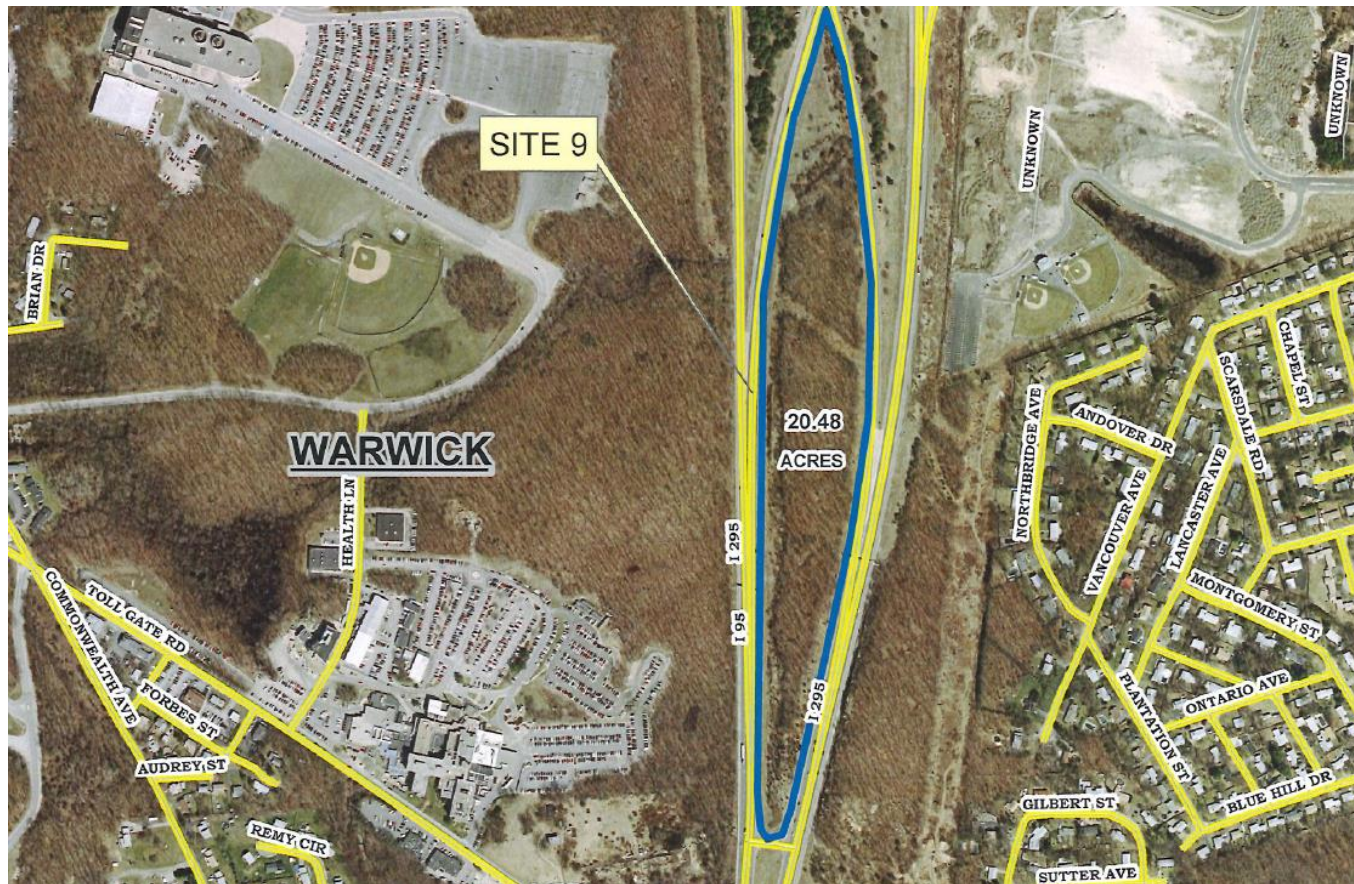


Benefits of installing solar panels in highway right-of-ways

- Significant amounts of “controlled access” vacant land available
- Reduces the need to site solar installations on farm or forested land
- Proximity to electrical infrastructure/grid
- Energy generated can offset state facilities electricity cost via “net metering”
- Aides Rhode Island in achieving its green energy goals under 2021 Act on Climate.

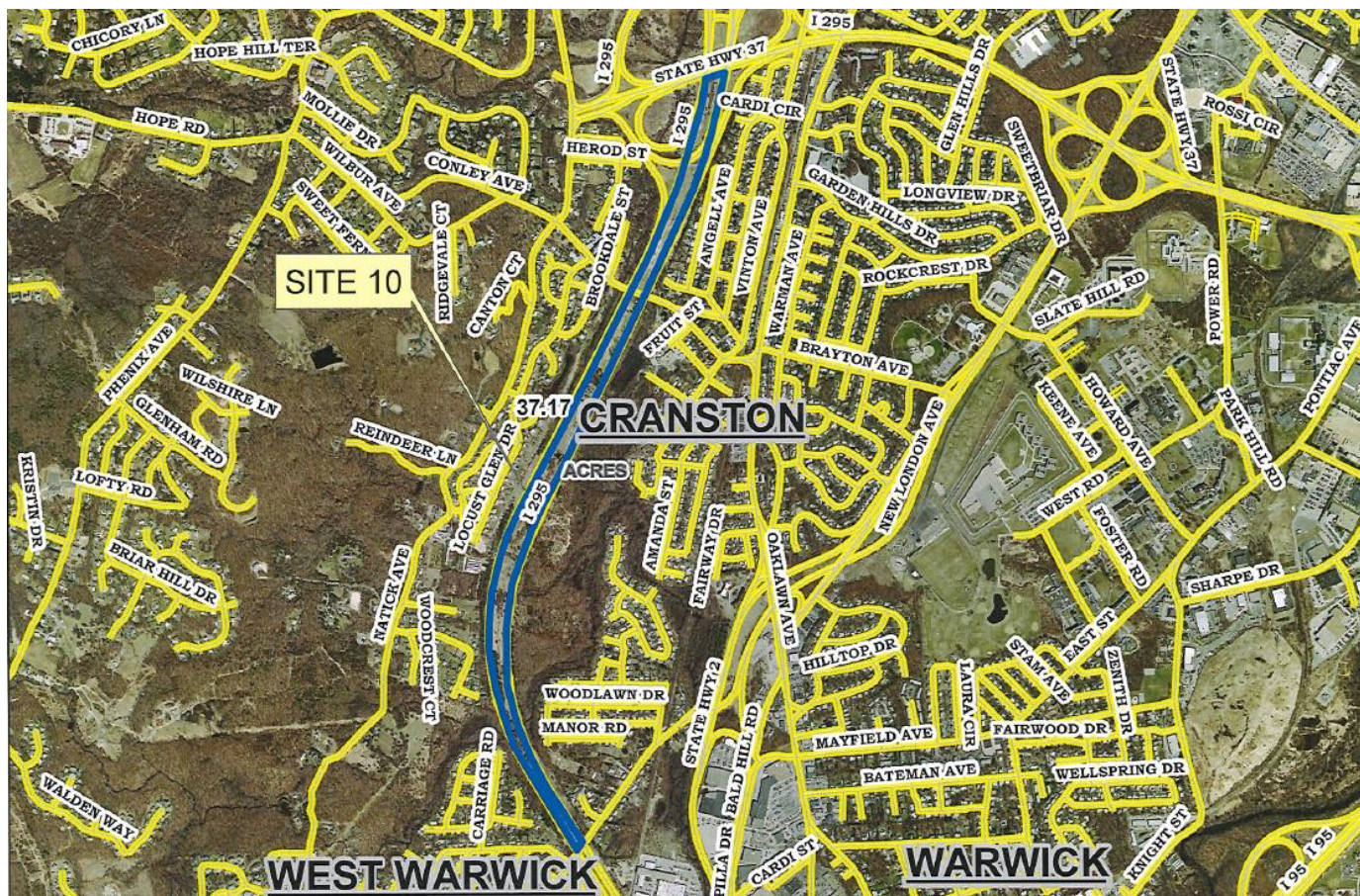
Potential Installation Sites

I-95/I-295 Interchange, Warwick



Potential Installation Sites

I-295, Cranston



Potential Installation Sites

I-295 Median, Johnston



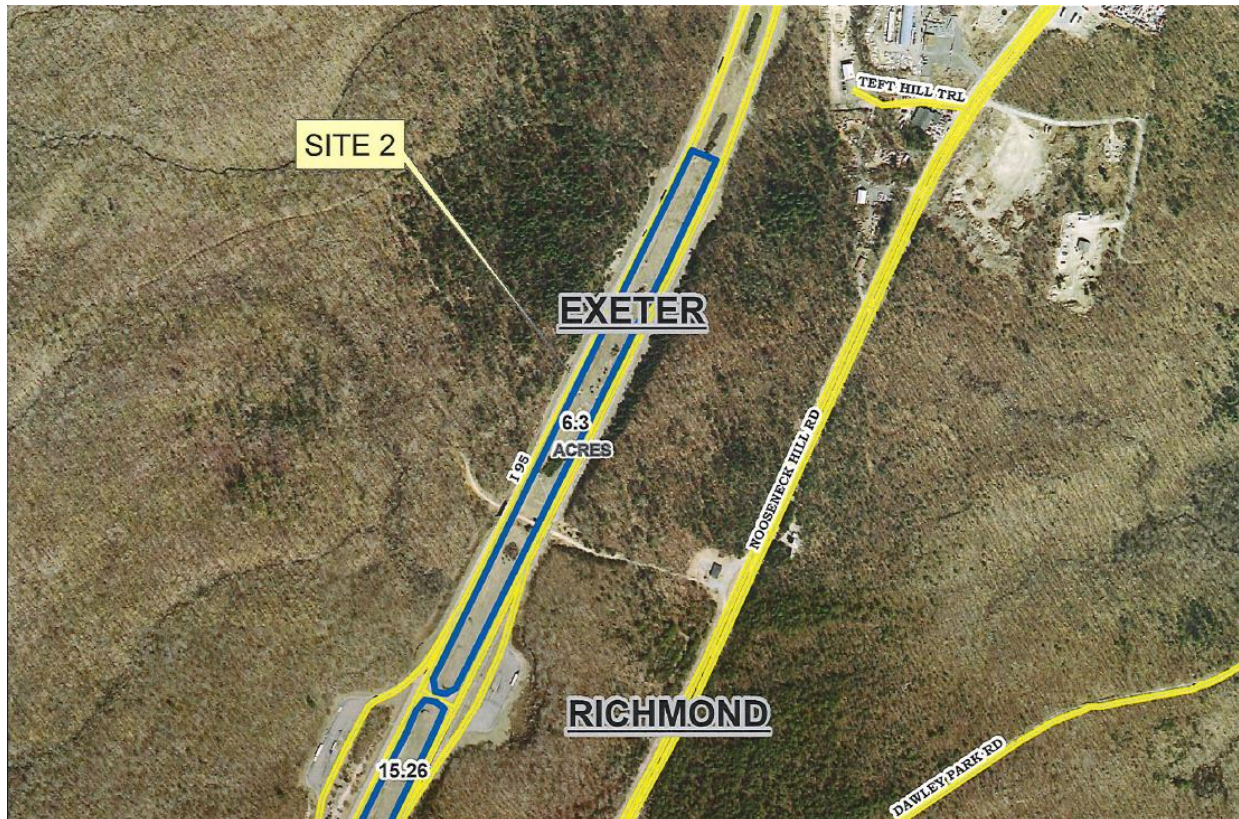
Potential Installation Sites

I-295 Median, Lincoln



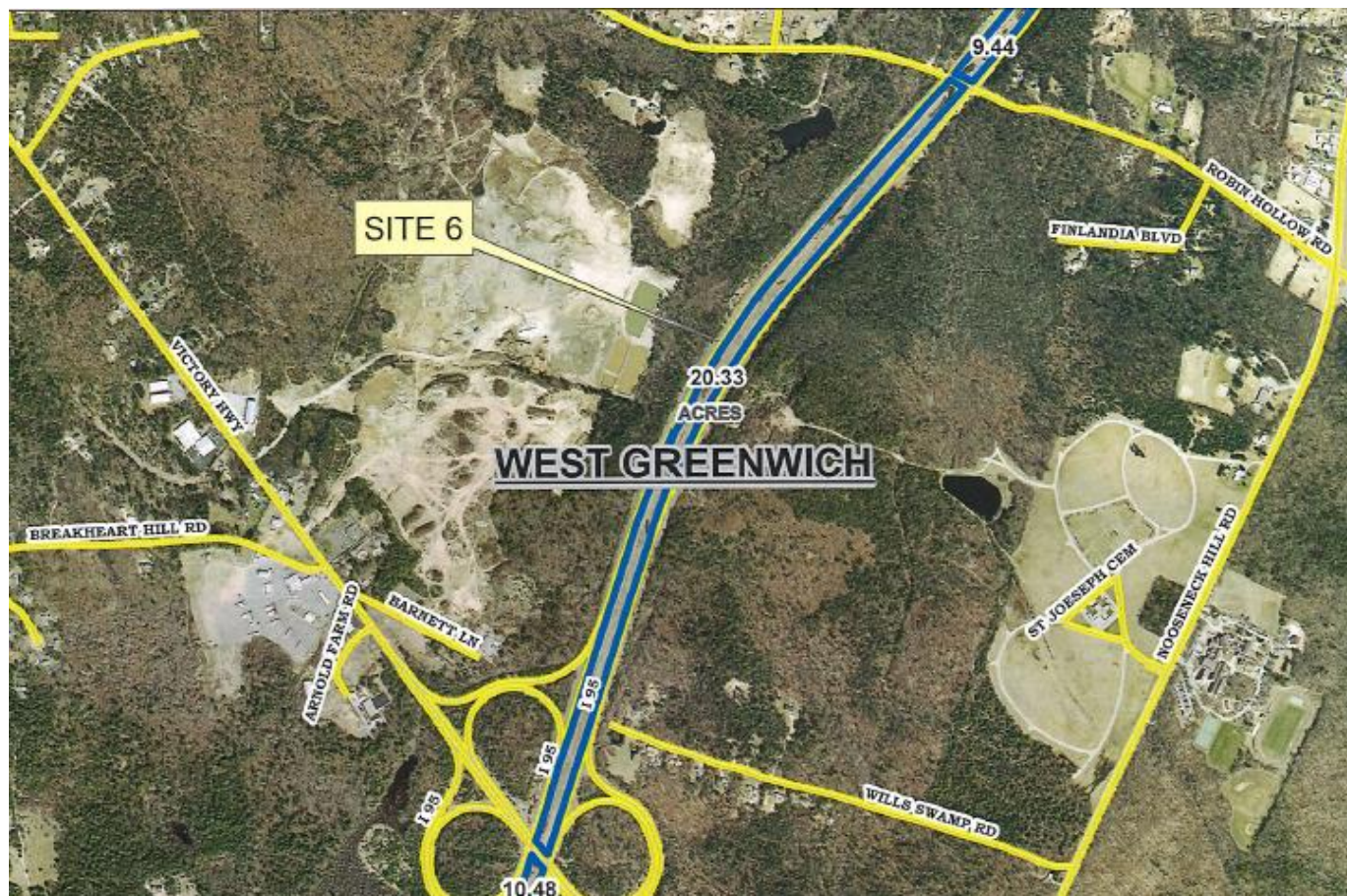
Potential Installation Sites

I-95 Median, Exeter/Richmond



Potential Installation Sites

I-95 Median, West Greenwich



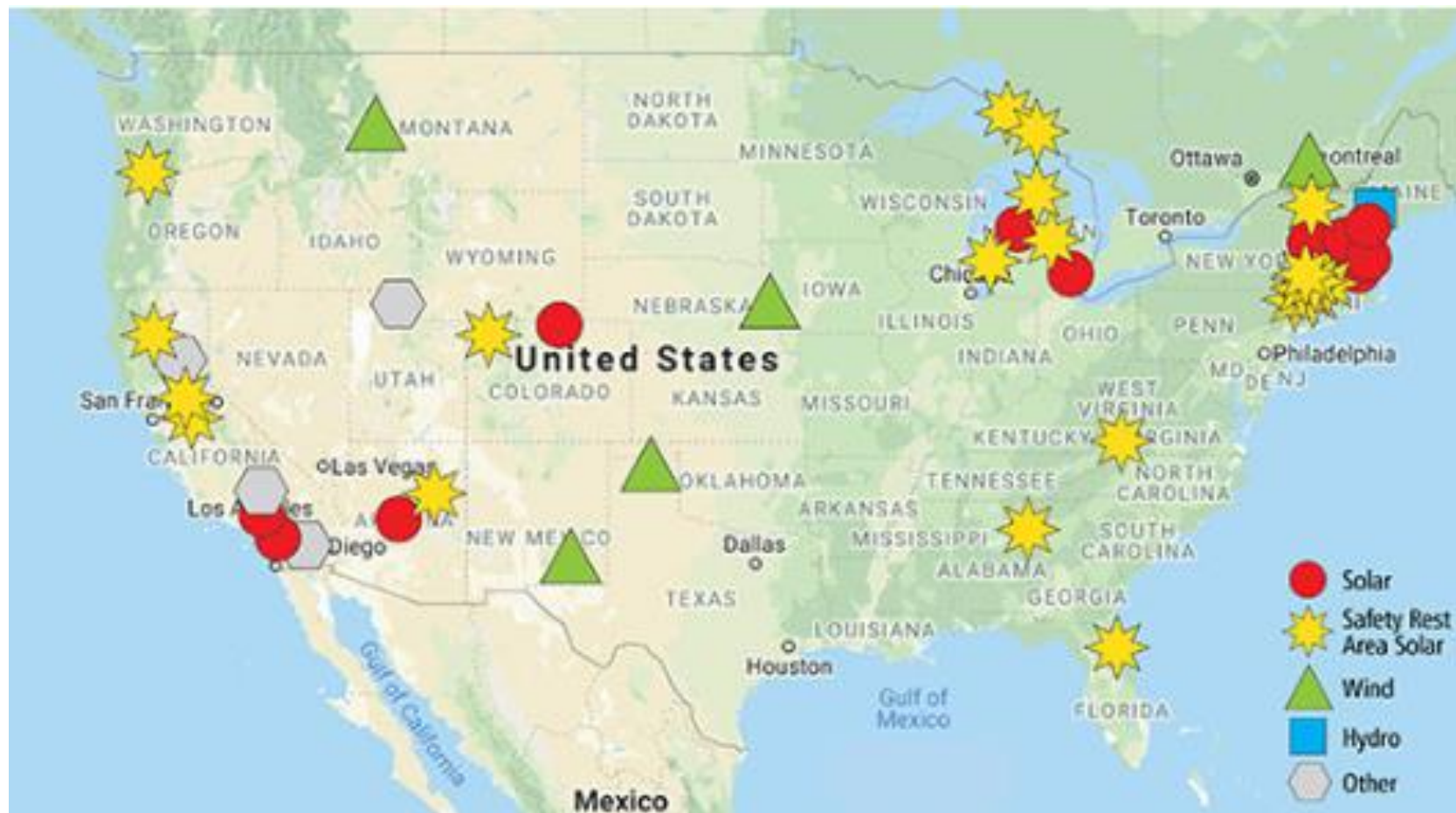
Ramp Cloverleaf & Roadside Installation Examples



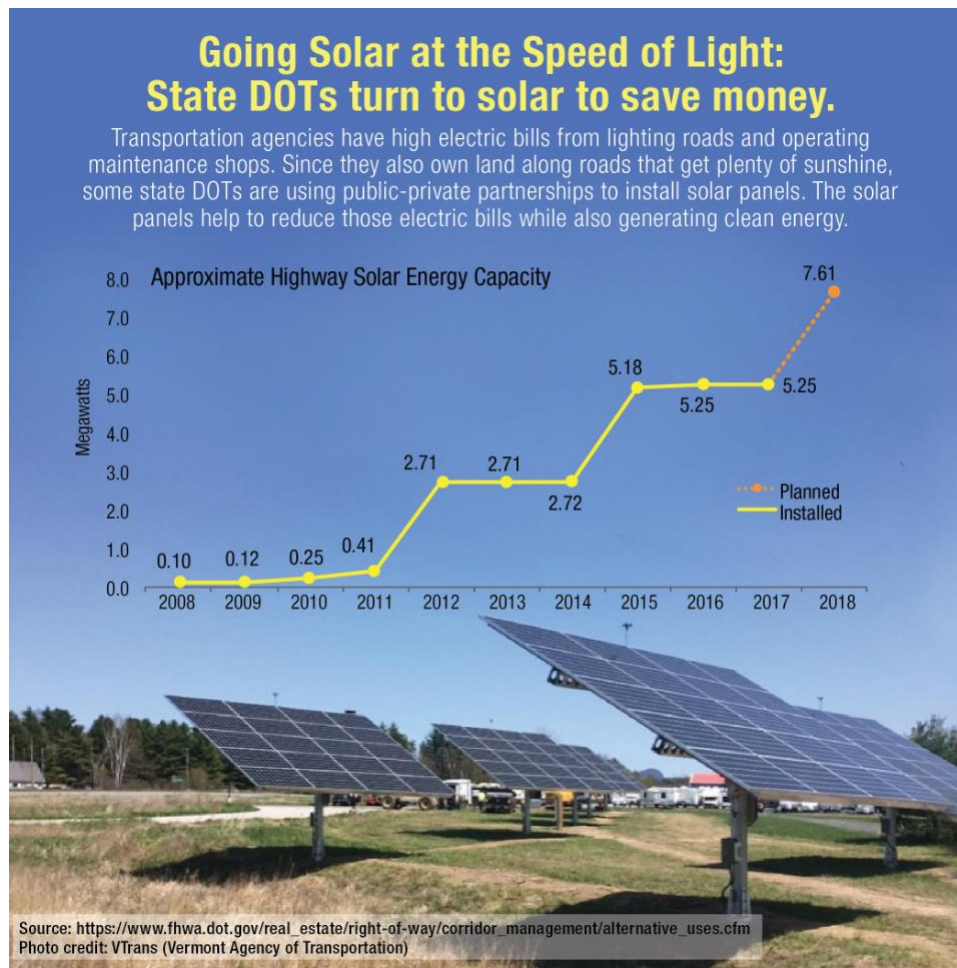
Solar panels installed by MassDOT on I-90 in Framingham, one of many sites installed throughout Massachusetts



Highway Renewable Energy Projects in the United States



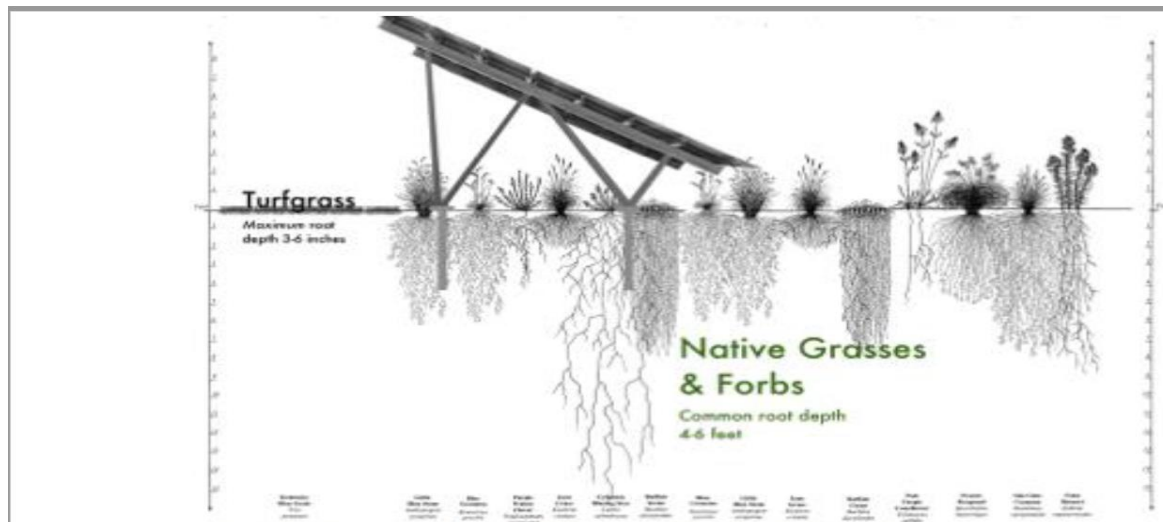
Snapshot of Highway Renewable Energy Projects in the United States



Federal Highway Administration Requirements

Environmental Assessment/NEPA

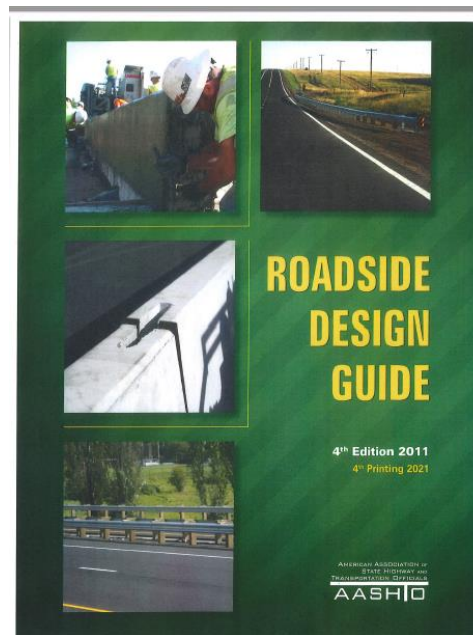
- Public health or safety
- Historic or cultural properties
- Wildlife
- Ensure there are no disproportionate impacts to minority populations



Federal Highway Administration Requirements

Roadside Traffic Safety Consideration

- Maintain 30 Foot “Clear Zone” from Travel Lane, or
- Place Behind Guardrail or Barrier



Federal Highway Administration Requirements

Inclusion in RIDOT's "Utility Accommodation Policy"

290-RICR-20-00-5

TITLE 290 - DEPARTMENT OF TRANSPORTATION

CHAPTER 20 - GOVERNMENT AND UTILITIES

SUBCHAPTER 00 - N/A

Part 5 - Accommodating Utility Facilities Within Public Freeway Rights-of-Way and Public Railroad Rights-of-Way

5.1 Authority and Purpose

A. Authority

1. The following regulations are promulgated to administer the Department's policy for accommodating utility facilities within Freeway rights-of-way and Railroad rights-of-way pursuant to The Utilities Act, 23 C.F.R. § 645.201 *et seq.* and R.I. Gen. Laws §§ 24-8-34, 24-10-2, 24-10-3, 37-7-8 and Chapter 42-35.

B. Purpose

1. The purpose of these regulations is to prescribe conditions for the regulation of utility facilities within Freeway rights-of-way, and granting of easements and right-of-way within Railroad rights-of-way. No easement or right-of-way will be granted that will or may adversely impact future transportation needs of the citizens of Rhode Island.

Other Requirements & Considerations

- State specific regulatory issues
- Proximity to electric grid
- Capacity of the nearby utility infrastructure
- Site solar orientation
- Aesthetics
- Security (theft/vandalism)