

# Agenda

- Introductions
- Define the problems – loss of forestland and large solar project
- Current forest policy in RI
- How money flows in solar projects
- Key energy policy in RI guiding solar development
- Administrative challenges
- Suggested legislative action for 2021

# Primary Issues

- The Climate Crisis is urgent, and we need policy to address it!
- Rhode Island does not have a plan for siting solar to reach GHG goals in Resilient RI Act or Governor's executive order (eg. 1000 MW by 2020).
- Projects are driven by market forces created by policies. There is currently no change in incentive level for open space v. preferred areas & open spaces are cheaper to develop in. Market signals make forests & greenfields most attractive.
- **10 MW cap on project size in legislation has loopholes, so larger projects can be built that fragment forests**
- **Rhode Island does not have policies to protect forest lands for their habitat and climate resilience values.**
- **Developers will push for additional net metering off-takers, which we do not support without protection of green space.**

# 2021 Legislative Recommendations

- Forest Conservation Act (somewhat modeled after the farmland preservation act)
- Add language to the NM statute (Chapter 39-26.4) to not allow the siting of projects on contiguous parcels, **except** on already developed parcels.
- Do not allow amendments to (39-26.4-2 (5) “Eligible net-metering systems”) to increase the categories of entities eligible for virtual net metering

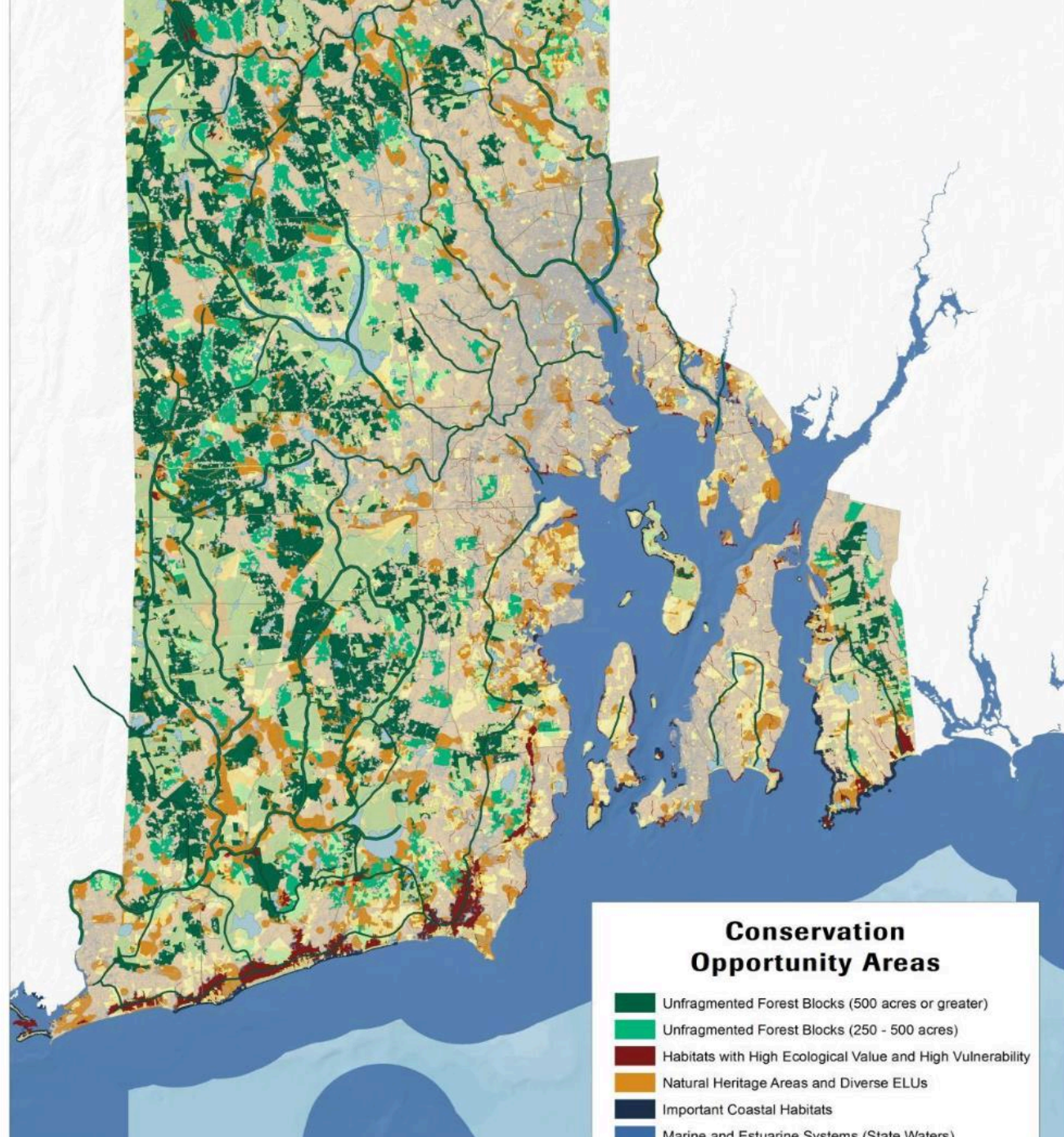
# Rhode Island forests

(from the [Value of Rhode Island Forests](#))

- More than half of RI is forested (370,00 acres)
- About 125,000 acres (34%) are permanently protected
- Core forests are blocks of forest lands greater than 250 acres. An estimated 213,000 acres (58%) is considered core forest.
- Most forestland is **privately owned**. Individual properties are typically small, but collectively control about 68% of the state's forestland.
- Forest fragmentation and conversion to other land uses are the biggest threats to RI forests. Nearly 2,000 acres of core forest were converted to other land uses between 2011 and 2018.
- Other threats to forest include invasive species, deer browsing and climate change.

# Benefits of Rhode Island's Forests

- Absorb hazardous air pollution. Rhode Island's trees provide more than \$30 million annually in pollution removal benefits.
- Clean Water. More than 80% of Rhode Island's population relies on reservoirs surrounded by mostly forested watersheds for drinking water.
- Sequester 500,000 metric tons of carbon dioxide from the atmosphere each year.
- Support outdoor recreational activities.
- Provide unique habitats that support thousands of wildlife species and close to 2,900 plants.





Hopkinton solar project status - September 2020

Status

- Denied
- Approved
- Proposed
- On hold
- Tabled
- Withdrawn

Zoning/Planning status - September 2020

## Solar projects in Hopkinton, RI

### Disclaimers:

- Map shows parcels and does not represent individual project footprints or arrays
- Map was developed with information available as of September 2, 2020

Submit suggestions, revisions, additions:  
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# EcoRI

# 38.4 MW

180 acres of trees  
cut for 160 acres  
of solar panels.

Land privately owned.





# Policies that Encourage RE Development

- High level goals (e.g. 1000 MW; full decarbonization, 100% renewable electricity by 2030)
- Policy Landscape:
  - Net Metering & Virtual Net Metering
  - Renewable Energy Growth
  - Long-Term Contracting
- Silo'd from discussions of forest & land policy
- Major focus on jobs & the economy

# Net Metering & Renewable Energy Growth

## Renewable Energy Growth

- “Buy All, Sell All”: Set price for 15-20 yrs
- Prices set based on costs of construction – involvement of DG Board & PUC
- Annual total cap of 40 MW across all project types (large solar, residential, wind, etc)
- Anti-segmentation rules

## Net Metering

- A billing process that offsets energy consumed with energy generated
- Price set by statute, based on retail electricity price
- No annual cap
- Project cap of 10MW
- No anti-segmentation rules
- On Site v. Virtual Net Metering

# High Level REG vs Net Metering Comparison

Characteristic	REG	Net Metering
Does the program have an annual cap	Yes - 40 MW	No
Project Size Cap	5 MW - but also other breakdowns per sub-category	10 MW (but not anti-segmentation rules)
Competitive Pricing	Annual pricing based on costs with opportunity for adders (e.g. carports)	Pricing set in legislation through 2050; no opportunity to change pricing for preferred sites.
Program Oversight	DG Board, yearly program approval at PUC	No annual/regular reviews; no oversight board.



# What about Virtual Net Metering?

- Off-takers are limited to entities in the ‘public interest’: state and municipal government, non-profits, college & universities.
- These facilities are the “load”, and they basically enter into a power purchase agreement (PPA) with a developer.
- Essentially an accounting practice:
  - The “meter” runs forward and backward, but the generation is located off-site.
- Rate is still set as the same as in statute at ~retail rate

# Sources of Funding: Virtual Net Metering

## Grants/Tax Incentives

- Federal Tax Incentives:
  - Investment Tax Credit
  - Production Tax Credit
- State Grants/Tax Exemptions
  - Renewable Energy Fund

## RECs

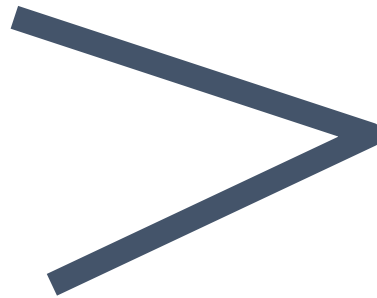
- Renewable Energy Credits
- For every unit of electricity generated (MWh), 1 REC is generated.
- Can be bought by National Grid for RES, but also can just be sold in the market

## Renewable Remote Net Metering Credits

- VNM credits are approximately the retail rate of electricity for that rate class
- Project that can generate electricity for less than that rate can be profitable
- The difference between the retail rate & what the developer can produce is where there is opportunity for profit

# Virtual Net Metering Credit

**Virtual Net  
Metering Credit  
for Each KWh  
off-set**



**Costs of  
Production, per  
KWh**



The difference between these is the potential revenue stream for developers. Off-takers/Load can be willing to pay developers just up to what their credits are worth.



# Sources of Funding: Renewable Energy Growth

## Grants/Tax Incentives

- Federal Tax Incentives:
  - Investment Tax Credit
  - Production Tax Credit

## RECs

- REG projects are required to sell their RECs to National Grid for RES compliance. But they are still a separate source of revenue that can drive project finance.

## Ceiling Prices

- Ceiling prices are set annually by the DG Board. Projects need to competitively bid under these ceiling prices to be considered for the project.

# Is there space in non-green spaces? **YES!**

## **Solar Siting Opportunities for Rhode Island**

An analysis of potentials and costs of rooftop, landfill, gravel pit, brownfield, commercial and industrial ground-mounted and carport solar

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**Prepared for Rhode Island Office of Energy Resources**  
August 18, 2020

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# East Providence: Forbes Street Former Landfill Solar Project





# What is included in the Cost of Development?

Interconnection

Site Identification

Land Clearing,  
Site Remediation

Construction

Permitting &  
Administrative  
Processes

Decommissioning

Local Property  
Taxes

# This problem is not new -- what is happening now to promote solar siting at preferred locations?

- OER and Statewide Planning developed a model ordinance for RI Cities and Town.
- OER has assisted municipalities, universities and other eligible offtakers with their RFP for VNM. The RFPs specify priority given to already disturbed sites.
- State of RI has developed RFP for state purchase of VNM which includes priority for already disturbed sites.
- Community Solar Expansion Bill will be introduced this session and will include language to prohibit co-location.

# 2021 Legislative Recommendations

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# Remaining Questions/Considerations

- Tracking projects - do we want to know how the landscape is changing?
- State siting report - what do we do to take advantage of the preferred locations? What could incentives/disincentives look like?
- What are the opportunities for inter-agency partnership and programs to coordinate strategy to guide development to preferred locations.
- National Grid has a broad role in the VNM program.



- **§ 39-26.6-9. Project segmentation prohibition.**

In no case may a project developer be allowed to segment a distributed-generation project on the same parcel or contiguous parcels into smaller-sized projects in order to fall under a smaller-size project classification. Notwithstanding this prohibition, a project developer may designate a generation unit on the same parcel or contiguous parcel for net metering or other means of participating in electricity markets, provided that the unit, or portion of the unit, designated for net metering or other market participation is not receiving performance-based incentives under this chapter; is capable of being segregated electrically; is configured with the electrical segregation; and is separately metered. Further, a project shall not be considered to have been segmented if:

- (1) There is a lapse of at least twenty-four (24) months between: (i) The commencement of construction of new distributed-generation units on a parcel that is the same as, or is contiguous with, a parcel upon which a distributed-generation project has already been constructed; and (ii) The operation date of the preexisting project; or
- (2) The new project is a different renewable technology.