# **Renewable Energy**

# Is the Loss of RI Forests Worth It?

Scott Millar Grow Smart RI



#### **RI Forest Land**

• RI 56% Forested

- 405,000 Forest Acres
- 80% of Parcels 10 Acres or Less
- 70% Unprotected



# **Large Forested Areas**

#### **RI Forest Economic Values**

#### \$710 million Annual Sales Forest Products

3,325 Jobs: Wood Products



# **Forests Yield Pristine Water Quality**





## **Forest Habitat**









# Wood Energy

• RI 160% increase in homes heating with wood between 2005-2012

• 135,000 cords burned annually

• Can heat over 35,000 homes

# **Forests and Climate Change Mitigation**



#### Trees:

#### The **BEST** Economical Climate Change Solution

• 1 acre of RI forest can store 88 tons of carbon

• Rl's 400,000 acres of forest can store over 35 million tons of carbon

• 35 million tons of carbon = emissions from 5.9 million cars

# Recommendations to Increase Size and Number of Trees

Reforestation

• Avoid forest loss

Good forest management

### **RI Renewable Energy Status**

- Goal: 1000 mega watts (MW) by 2020
- Currently have 230 MW
- Need 770 MW to achieve the 1000 MW goal
- 1 MW solar requires 4-6 acres
- 3,000- 4,600 acres needed for solar = 770 MW

# **70 Acre Cranston Solar Facility**



# Cranston Solar Facility cont'd



# Cranston Solar Facility cont'd



# How Can RI Achieve Renewable Energy Goals and Maintain the Forest?



# **Solar Siting Alternatives**

- Landfills
- Roof tops
- Solar Canopies in Parking Lots
- Gravel Banks
- Brownfields
- Business/Industrial Zoned Lands
- Existing Fields: Not Prime Farm Soils

## **East Providence Landfill Solar Facility**



### **East Providence Landfill Solar Facility**

3.7 MW Currently 9 MW Total 2018 70 acre project



# **Meeting Street School Roof**

- 86.19 Kw Project
- Saves \$9,000 annually



# **Solar Canopies**



### **Next Steps**

- State should provide economic incentives to site solar in preferred locations
- Model solar siting guidance should be prepared
- Towns should revise renewable energy ordinances to follow guidance
- Revise State building code to be solar friendly

**Questions?** 

# Farm and Forest Scenic Value

