IARW North Atlantic Chapter Meeting:
An Overview of Solar Energy Opportunities in the North Atlantic Region
CONTENTS

• Why Solar? Why Now?
• Your Solar Options
• Solar Policy Overview
• Installation Video
INTRODUCTION

About HelioSage
• A solar energy project developer
• Commercial, municipal, and education clients
• Generating power in 3 states
• Contracts across 8 states

Our History
• Founded by the principals of Greenlight Energy, Inc.,
• Greenlight: a large scale wind energy project developer
• 6,000 MW development pipeline; projects in 15 states
• $500MM in financed projects (i.e. built)
• Greenlight sold to BP Alternative Energy in 2006
WHY SOLAR? WHY NOW?

Solar reduces operating costs.

Solar provides a hedge against volatile and rising utility costs.

Solar is incentivized at the federal, state, and local level.

Solar is clean, renewable power.

Solar provides marketing opportunities.

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OPTIONS FOR “GOING SOLAR”

Host a System

• Third party ownership
• No capital outlay
• Discounted power price

Types of Hosting:

• Power Purchase Agreement
• Roof or Land Lease Agreement

Buy a System

• Capital outlay
• Free power on day 1
• Federal & State incentives
• Rapid investment recapture
PROJECT CONSIDERATIONS

Host a System

- No capital outlay
- Long term contract
- Energy hedge
- Energy savings
- Find the right partner

Buy a System

- Available capital?
- Available tax appetite?
- Non-core business; ownership risk
- Find the right partner
POTENTIAL PITFALLS, SOLUTIONS

Pitfalls:
• Market full of new entrants and start-ups
• Fragmented market, differences in every state
• Multiple vendors with various motivations
• Fluid incentive markets; boom & bust

Solutions:
• Understand risks/rewards of owning and hosting a solar project
• Choose the qualified partner who you trust

“2 out of 3 projects never get built”
VARIOUS INCENTIVE MECHANISMS

• Tax Incentives
  • Federal Investment Tax Credit (ITC), 30% of project cost
  • Federal Modified Accelerated Cost Recovery System (MACRS)
  • State Sales & Property Tax Credits, Exemptions

• Feed-in Tariff (FiT)
  • Direct, fixed long-term contract for power generated by the system

• Solar Renewable Energy Certificates (SRECs)
  • Tradable, non-tangible commodity designed to assign monetary value to the environmental benefit of 1 MWh of electricity generated by solar
  • Risk of market over-supply (e.g. PA, NJ)

• Direct Rebates or Grants
  • Can be capacity-based (CBI) … $/kW
  • Or performance-based (PBI) … $/kWh
  • Programs are often fleeting; quick to run out of funding
SOLAR POLICY: “HEAT MAP”
NORTH ATLANTIC REGION

U.S.
• MA: A
• DC: A
• NJ: A-
• CT: A-
• OH: A-
• MD: A-
• NY: B+

Canada
• ON: A
• QC: C

Map of the North Atlantic Region showing solar policy rankings for different states and provinces.
SOLAR POLICY: MARKET UPDATES
NORTH ATLANTIC REGION

US

• New Jersey
  • Robust SREC program now facing rapid oversupply, market concerns
• Connecticut
  • Massive energy bill passed in June
  • Creation of new “ZREC” market and other solar incentives
• Massachusetts
  • Very successful SREC program, though some growing concerns with interconnection, net metering, and eventual SREC oversupply.
• Delaware
  • Modest SREC market soon to be bolstered by higher targets in Jan 2012
• DC
  • Modest SREC market soon to be bolstered by higher targets in Jan 2012
SOLAR POLICY: MARKET UPDATES
NORTH ATLANTIC REGION

US

• New York
  • With other policy issues now aside, NY likely to pass massive solar legislation in Q1 2012

• Pennsylvania
  • Large SREC oversupply & modest RPS targets have put market on temporary hold

• Ohio
  • New SREC market looking strong for in-state projects

• Maryland
  • Solid SREC program with continued focus on policy improvements
SOLAR POLICY: MARKET UPDATES
NORTH ATLANTIC REGION

Canada

• Ontario
  • North America’s first robust Feed-in Tariff (FiT) has led to expansive solar development in the province
  • Tariff levels have stepped down, but still strong
  • Some complaints about administrative/interconnection issues
  • Uncertainty regarding upcoming election’s impact on the future of the FiT
CASE STUDIES; REAL BENEFITS

Host

Case 1
• Scope: 1.15 MW roof mount array
• Location: Boston, MA
• Client Type: Medical Technology

Benefits
• $83,000 in Year 1 savings
• Potential savings over contract: $3M+
• Fixed power price for 20 years
• PR Value

Buy

Case 2
• Scope: 737 kW roof mount array
• Location: Maryland
• Client Type: Warehousing & Logistics

Benefits
• Investment recapture: 5-6 years
• 30% Federal cash grant
• Tax shields from accelerated depreciation
• Sale of SRECs
• PR Value
CONSTRUCTION VIDEO
OUR ROLE

- Feasibility
- Engineering
- Financial Modeling
- Project Management
- Vendor Qualification
- Operation and Maintenance
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