



TOWN OF SUMNER

INDUSTRIAL

WIND ORDINANCE

OCTOBER 26, 2011



AGENDA

PROTOCOLS: MMA RULES

TONIGHT'S OBJECTIVE

IWOC MEMBERS AND PROCESS

UPCOMING MEETINGS

ORDINANCE NECESSITY

IWOC Committee: VALUES & OPERATING PRINCIPLES

THE FOUR MAJOR TOPICS

- ENVIRONMENT**
- SAFETY**
- HEALTH**
- ECONOMICS**

DISCUSSION AND INPUT GATHERING

TONIGHT'S OBJECTIVE

- **SHARE IWOC FINDINGS ON FOUR MAJOR TOPICS**
- **COLLECT COMMUNITY INPUT ON EACH TOPIC**
- **PROVIDE DETAILS ON TOPIC RESEARCH**
- **AFTER TONIGHT: WEAVE INPUT INTO ORDINANCE PROPOSAL FOR DISCUSSION AT 11/2/11 PUBLIC HEARING**

IWOC MEMBERS/PROCESS

(Active)

| ECONOMICS | ENVIRONMENTAL | HEALTH | SAFETY |
|----------------|-----------------------------------|--------------|--------------------------------|
| John Allen | Jessica Doe <i>Vice- Chair</i> | Jeff Pfeifer | Kathy Emery <i>Chairman</i> |
| Larry O'Rourke | James Gammon <i>Secretary</i> | Lana Pratt | Diane Todd |
| | Diane Todd | | |

INDUSTRIAL WIND ENERGY FACILITY ORDINANCE MEETINGS

- **OCTOBER 27TH:** IWOC
MEETING: Town Hall 7PM
- 10/26 Town Input To Be
Integrated Into Proposal
- **NOVEMBER 2nd:** 7PM HSES:
PUBLIC HEARING: Resident
Comments/Input on IWOC
Proposal Based on Town Input
- **NOVEMBER 3rd:** IWOC
MEETING: Town Hall 7PM:
11-2 Hearing Input Integrated
Into Final IWEF Ordinance
Proposal To Be Published 11-8
- **NOVEMBER 9th:** 7PM HSES
PUBLIC HEARING: Presentation of
Final IWEF Recommendation for
Town Vote
- **November 16th:** **VOTE
YES on the IWEF
Ordinance**

ORDINANCE NECESSITY

To Ensure That If Wind Comes to Sumner It Is Done Responsibly

Town-Established Guidelines Guarantee:

- Economic Benefits
- No Risk to Health, Safety, Taxes and Environment
- Keep Local Control

In The Absence of a Town Ordinance:

- State Permitting Rules Apply
- Guidelines Are Established by the Developers Proposal
- Town Objections Are Litigated In Augusta
- **Help Us Craft a YES Proposal**

INDUSTRIAL WIND ORDINANCE COMMITTEE

OPERATING PRINCIPLES

VALUES

- Communities Are Resident' Safe-Havens
- Communities Are Not Risk Taking Entities
- Businesses Are Risk Taking Entities
- Ordinances Should Leave Business Risk On The Developer

PRINCIPLES

- Draft An Ordinance Which “Does No Harm”
- Create a Framework for Responsible Development
- Maximize Town Economics
- *Short Version*
 - Eliminate Down-Side Risk
 - Maximize Up-Side Opportunity

ENVIRONMENT

- Pre and Post Construction Wildlife & Habitat Studies
- Protect Environmentally Sensitive Areas
- 5 Mile Visual Impact Assessment
- Protect Drinking Water Quality
- Hazardous Waste Disposal Plan (for the life of the project)
- Protect Our Ponds, Rivers & Streams

SAFETY

- Includes Fire Prevention and Emergency Response Plans
- Ensures Prompt Response to Complaints
- Requires Liability Insurance for all Events
- Provides a Comprehensive Blasting Plan
- Guarantee Surety Bonds to Cover Infrastructure
- Requires Town Approved Security Plan
- Developer Funds SVFD Special Equipment, Training & Insurance

Health, Safety & Property Values

Setback/Safety Buffer Protecting Against:

- **Infrasound (Low Freq.)
Noise & Vibration
Affecting Health**
- **Forest Fire/Ice Throw
Perimeter Providing Safety**
- **Distance from an IWEF
Protecting Property
Values**

Noise Limits Affording Protection From:

- **Sleep Disruption and
Illness**
- **Internal Organ Disruption
(Infrasound) and Illness**
- **Disruption of Rural Quiet
/ 24-7-365 Noise**

ECONOMICS

- Requires Pre-Funded Decommissioning Plan
- Applicant To Hold Town Harmless From Litigation
- Requires Guarantee of Projected Town Revenue
- Escalates Sumner Revenue Proportionate to IWEF Revenue Increase
- RFP Issued If Sumner Votes to Consider IWEF
- Provides Property Value Guarantee: Fair Market Appraisal, 2.5M Radius

ENVIRONMENTAL

Ensuring the protection of our precious environmental resources.

- **Wildlife Protection-** Pre/Post Construction studies to mitigate damage to wildlife populations and ecosystems. No DEP variance allowed.
- **Environmentally Sensitive Areas-** Requires appropriate measures to protect said areas during construction and operation.
- **Scenic/Special Resource Standard-** Establish a provision for a visual impact assessment within 5 miles of an IWEF to assure the Town's scenic character is preserved.
- **Erosion Control and Water Quality** - Measures to keep ponds, rivers, streams and water sources protected.
- **Hazardous Waste** - Detailed plan demonstrating compliance with all local/state/federal regulations regarding the generation, storage, cleanup, and disposal of wastes throughout project life

HEALTH

- Protects Everyone's Health:
- Now and 20 years from now
- Especially our most vulnerable:
- Elderly, infants & chronically ill
- Setbacks = Safety Buffers Against:
- Forest Fires
- Tower collapse
- Blade Throw
- Ice Throw

LEGAL

Wind Ethics for Town Officials:

No Conflicts of Interest

SETBACKS & SOUND LIMITS

**Protect Against Noise
you can hear &**

- **Infrasound:**
- **Noise you can't hear**
- **but your body feels**
- **Low Frequency &
Vibrations**

**Noise You Can Hear --
Causes:**

- **lack of sleep**
- **High Blood Pressure**
- **Stress & Anxiety**
- **Annoyance**

INFRASOUND -- CAN'T BE HEARD -- CAUSES:

- Cardiac Arrhythmia
- Migraine-like Headaches
- Dizziness & Nausea
- Damages:
 - Heart, Liver & Immune System
- Travels for miles in Rocky Maine
- Goes right through your House
- Vibrations diminish over distance
- Longer distances Are Safer

SETBACKS

- **Why Setbacks? - Health**
- **Infrasound vibrations reduced**
- **Fewer Health Complaints**
- **Provides Safety Buffers**

NOISE LIMITS

Why Noise Limits?

- World Health Organization: 30 dBA
- Sumner has a deep rural quiet
- Let's keep it that way
 - Audible: 35 dBA
 - Infrasound: 50 dBC

**RECOMMENDATION ON
DECOMMISSIONING
AUGUST 30, 2011**

**Sumner IWOC
Economic Sub-Group**

DECOMMISSIONING

NO CONSTRUCTION TO BEGIN PRIOR TO:

-DECOMMISSION PLAN APPROVAL BY PB

**-ESTABLISHED ESCROW
ACCOUNT/PERFORMANCE BOND**

**-ADJUSTED/FINANCIALY U/W EVERY 2
YEARS**

DECOMMISSIONING

- Funding guarantee equal to 100% of **DECOMMISSION** costs
- If fund inadequate Town TAPS salvage value.
- The **OPERATER** shall decommission at end of the useful life.
- 30 days after decision to stop generating electricity
- 90 days after catastrophic failure unless restored within 90 days -180 days after **NO** electrical **GENERATION** for any reason

DECOMMISSIONING

- Decommissioning to be completed < six months
- Includes removing **EQUIPMENT**, buildings, etc.
- DEP assessment TO certify **NO** environmental risks.
- If **NOT** decommissioned < 6 months Town can contract To **3RD** party

ECONOMIC IMPACT-NON TIF

- Per Capita (919 Taxpayers)
- Savings Year 1 & 2 = \$227 annually = 62 cents daily
- 3rd year = \$198 annually 54 cents daily
- 4th > 20th year \$94 annually = **26 cents daily**
- Property Values < \$100k (648 Persons, 71% of Taxpayers)
- Savings Year 1 & 2 = \$113 annually = 31 cents daily
- 3rd year = \$99 annually = 27 cents daily
- 4th > 20th = \$47 annually = **13 cents daily**

Town of Rumford Bullet Point Comparisons

The proposed Wind Energy Facility Ordinance

Nov 2010

June 2011

Nov 2011

| | | | |
|---|----------------|-------------------|----------------------------------|
| Setbacks from Non-Participating Property Owners | 5,280 feet | 3,000 feet | 4,000 feet |
| Flicker Standards | 10 hours/yr. | 24 hours/yr | 12 hours/yr |
| Blade Glint Standard | Yes | No | No |
| Sound Limits: Nighttime | 40 dBA | 45 dBA | 40 dBA |
| Sound Limits: Daytime | 50 dBA | 55 dBA | 50 dBA |
| Sound Study Procedures | Yes | No | No |
| Planning Board Review of Application | 90 days | 45 days | 90 days |
| Planning Board Approval of Application following Public Hearing | 120 days | 60 days | 90 days |
| Wind Turbine Height | 400 feet | 450 feet | 450 feet |
| Decommissioning | 100 % up front | 100% in ten years | 50% up front & 12.5%/yr (2-5) |
| Inspections | Yes | No | Yes |
| Project Phasing Plan | 6 months | 12 months | 12 months |
| Operational License | Yes | No | Yes |
| Mitigation Waiver Financial Disclosure | Yes | No | No |
| Enforcement of Violation Agreement Provision | Yes | No | Yes |
| Pre-blast Survey Requirement | Yes | No | Yes |
| Community Benefits Provision | No | No | Yes |

Security Plan and Requirements

- The Application shall include a security plan that contains the information and meets the requirements in this section.
- A Wind Tower shall not be climbable up to fifteen (15) feet above ground surface.
- All ground-mounted electrical and control equipment and all access doors to a Wind Turbine shall be labeled and secured to prevent unauthorized access.
- Clearly visible warning sign concerning voltage must be placed and maintained at the base of all pad-mounted transformers and substations. A warning sign must also be placed at the base of each turbine.
- All motor vehicle access points to the Industrial Wind Facility from public roads shall be locked and gated.

Fire Prevention and Emergency Response Plan and Requirements

- Describe the potential fire, rescue and hazardous materials scenarios that may require a response from fire, emergency medical services, HAZMAT response, police or other any other emergency responding agencies.
- It will describe all emergency response training and equipment needed to respond to a fire or other emergency.
- Provision for additional firefighting or rescue personnel, services, training, materials, or vehicles as may be required to address any emergency related to the Industrial Wind Energy Facility beyond the current capabilities and duties of the local fire department.

Blasting Plan and Requirements

- Pre-blast survey required
- Baseline Radon Levels and Air & Water quality levels
- Blasting plan shall be reviewed and approved by the Sumner Planning Board
- A seventy-two hour notice shall be given to all residents within a two mile radius of the blasting area (measured horizontally) before blasting can begin.

Emergency Shutdown Plan and Requirements

- “*Emergency*” means any condition or situation caused or aggravated by a wind energy facility that presents a potential threat of physical danger to life or property.
- Emergency events include but are not limited to tower collapse, catastrophic turbine failure, fires, leakage of hazardous materials, extreme ice conditions, thrown blade or hub, injury caused by the Industrial Wind Energy Facility, and/or any other event that affects the public health and safety of the Town of Sumner or its residents.

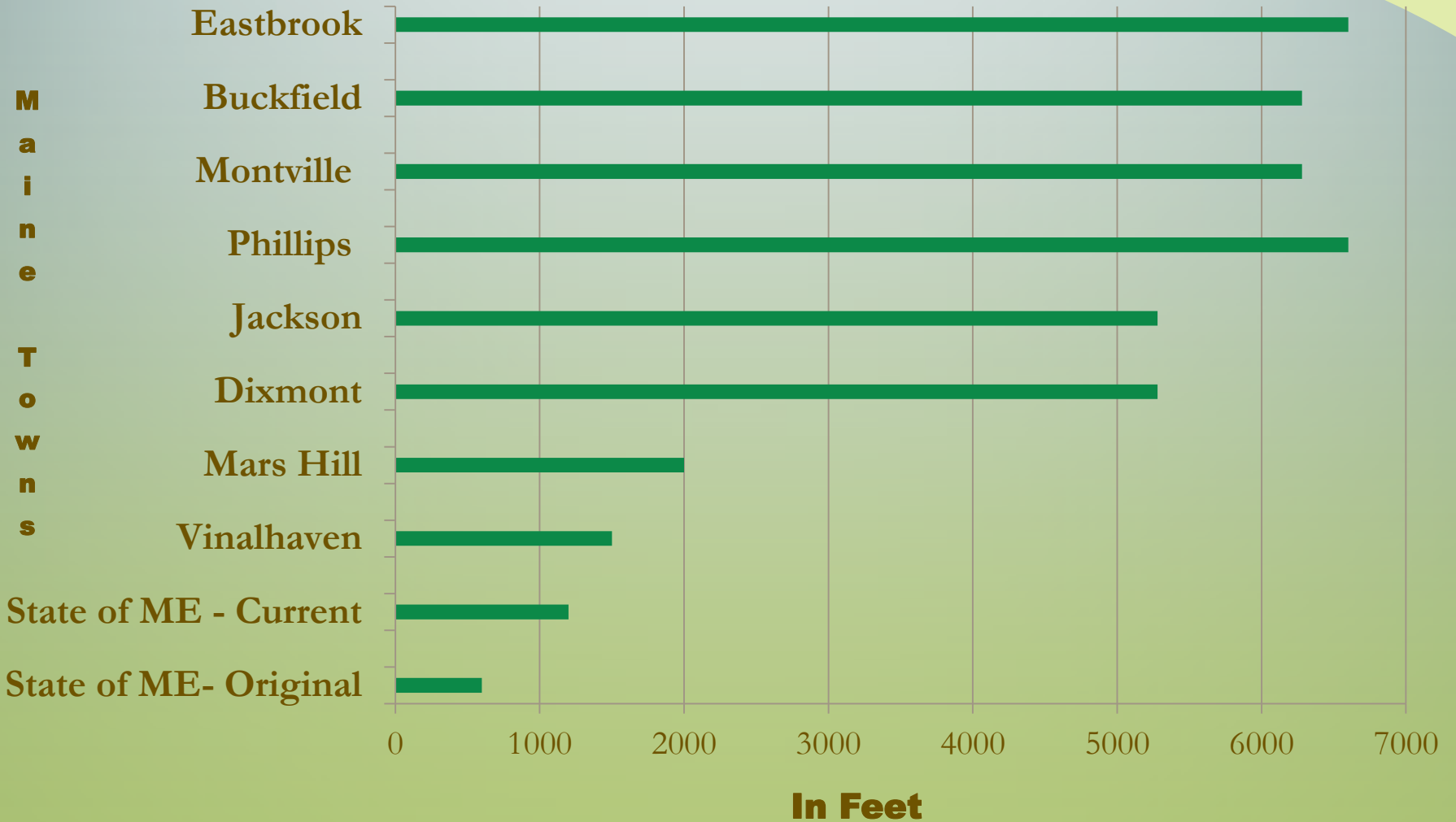
Public Inquiries and Complaints

- **Maintain a toll- free telephone number 24 hours a day, 365 days a year**
- **Make reasonable efforts to respond to all public inquiries and complaints**

Plan and Risk Assessment for Road and Property Use

- A description and map of all public ways, and other property, in the Town to be used or affected in connection with the construction of the Industrial Wind Energy Facility
- The Town of Sumner may bond the road(s) in compliance within the State of Maine regulations.
- A traffic control and safety plan relating to the use of public ways in the Town in connection with the construction of the Industrial Wind Energy Facility
- The Applicant shall be responsible for paying for any damage to any public way with a pre-funded surety bond

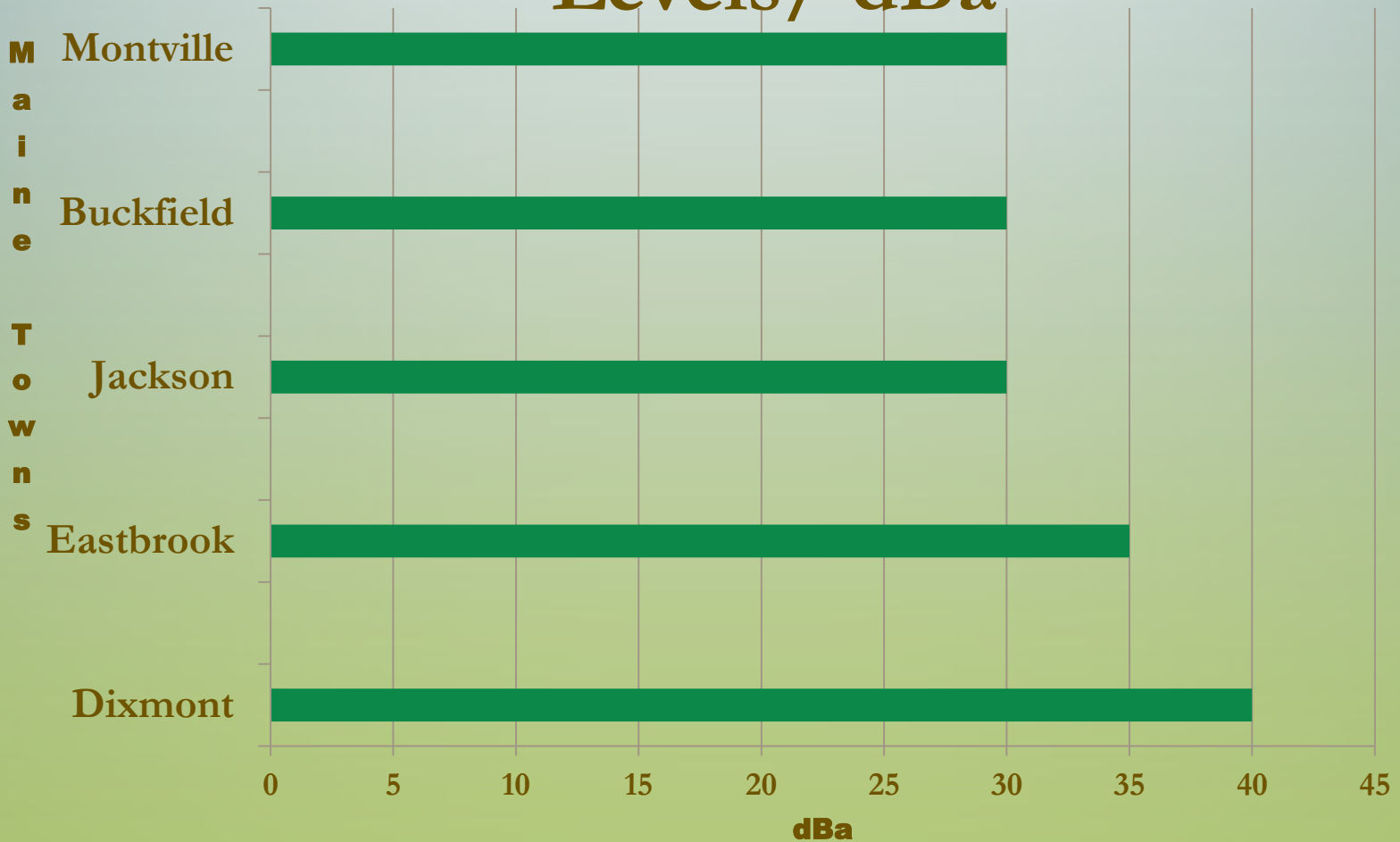
Brief History of Maine Setbacks



Global Setbacks



Brief History of Maine Noise Levels/ dBa



Global Noise dBa

