



# A New Public Power Authority?

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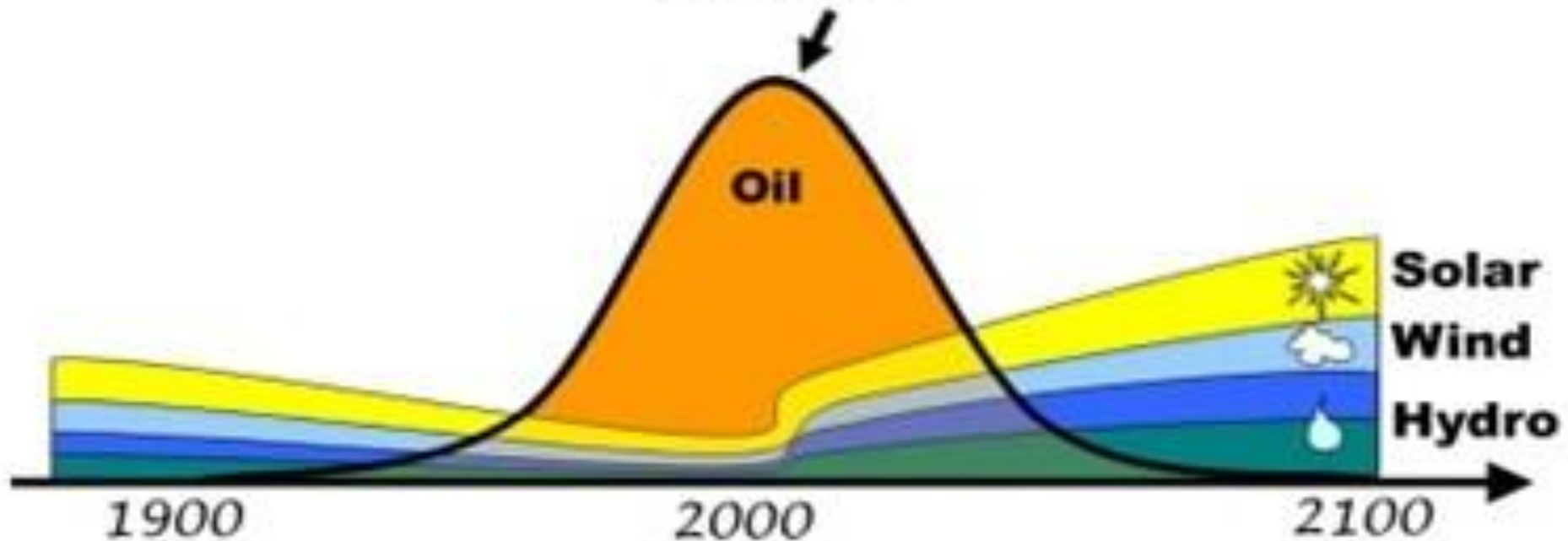
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Renewable Energy Vermont  
S. Burlington, Vermont  
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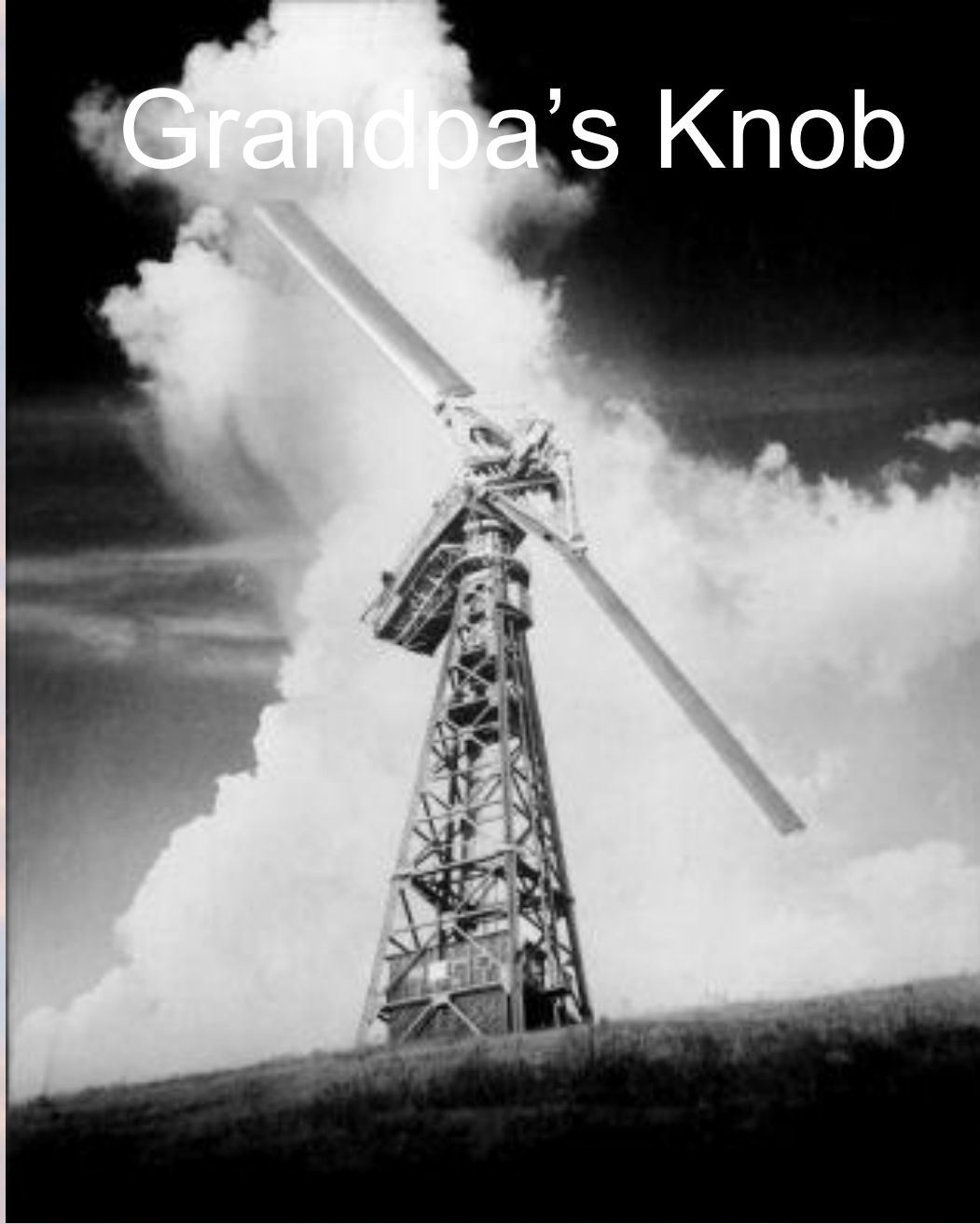
# Get ready

*We are here*



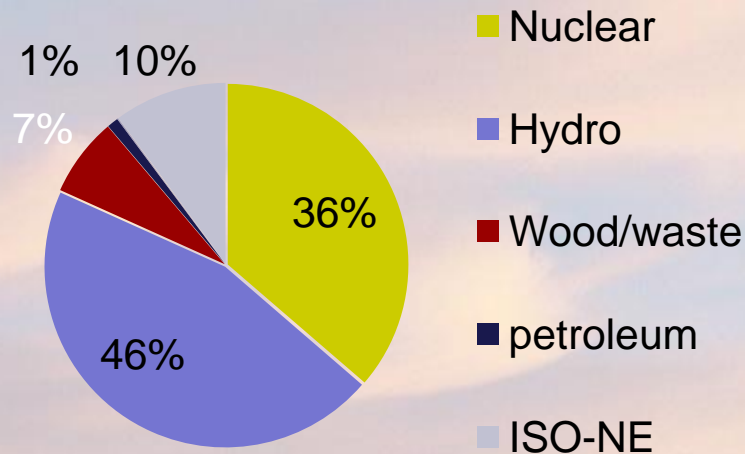
## for a low energy world

# Grandpa's Knob



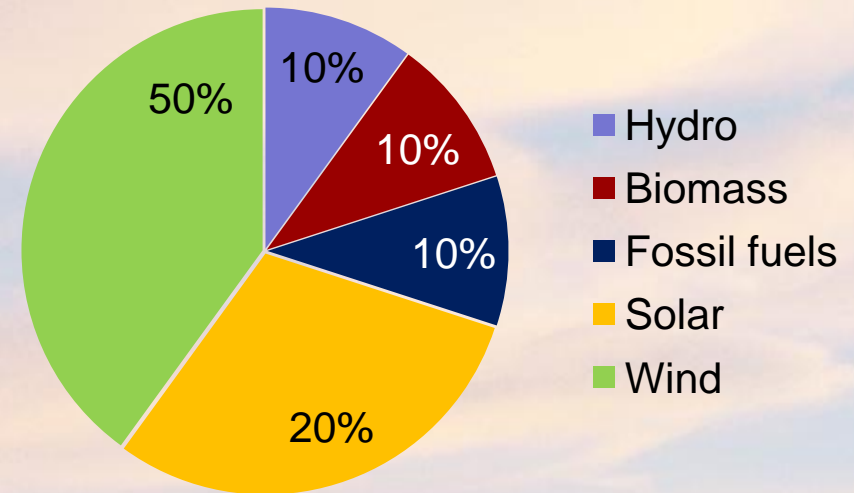
# Vermont's Electricity Supply

## Current picture 2007



700 MW average

## Future picture 2050



2100 MW average

# What does this mean?

- Shutdown Vermont Yankee in 2012 (~250 MW<sub>ave</sub>)
- Greater conservation and efficiency
- Build in-state renewables without delay
- Shift to electricity as main energy source
- New buildings to use 80% less energy
- Changing our energy mindset, moving to distributed renewable resources

# What's getting in the way?

- Misperceptions/myths
- Poor energy knowledge
- Greed over morals
- Politics vs “Doing what’s needed”
- Old ways of thinking
- Past sunk costs
- **Inability to understand a finite EARTH**



# Vermont Deliberative Poll Findings

- 90% support the building of a wind farm visible from where they live.
- 98% would like to increase the proportion of Vermont's electricity obtained from renewables.
- 69% wanted to see the electricity used by Vermonters produced mostly or entirely inside Vermont.

Source: Vermont Department of  
Public Service (2008)

# Vermont's Energy Outlook

- Electric rates to double/triple in next 10 years
- Renewables must play a **HUGE** role – fixed price
- Vermonters are demanding a clean energy future
- Fossil fuels and nuclear aren't clean or cheap
- Over 90% of VT energy imported ~ \$4 billion/year
- ALL energy prices going up – 1999 was the cheapest energy year for modern man
- Must think ahead more than a few years

# What must be done

- 80% cut in CO<sub>2</sub> by 2050 = **5% reduction** every year for 43 years = **5% reduction in fossil fuels every year**
- A \$100/ton carbon tax to fund a new green energy system
- Finite fossil fuels should only be used to back-up renewables
- Electricity to become 60-80% of energy supply, up from ~20%
- Must move to electrified mass transit and drop the auto-centric model. No new roads, airports, gas stations, car dealers, natural gas pipelines.
- Local renewable energy at homes, farms and businesses
- Massive switch to solar water heating, and wood/biomass for heating. GSHP for electric heating/cooling

# Lessons from Europe

- Community wind works!
  - Denmark: 1/4 of all wind capacity
  - Germany: 1/3 of all wind capacity
- Policy drivers (Feed-in-Tariff):
  - Right to connect to grid
  - Utilities required to purchase power
  - A guaranteed fair price



Dardesheim, Germany

# Benefits of Feed-in-Tariffs

- Distributed generation
- Building renewable energy capacity
- Local economic benefits
- Local (not corporate) ownership
- Avoid conflicts and NIMBY
- Builds local industry, jobs
- Fixed, long term prices for electricity
- Low carbon

## **Models for North America:**

- Ontario Standard Offer
- State policies in play: MI, CA, RI, MN, IL, FL

# How do we get it done?

- Public Power Supply Authority – purchases most electricity under long term fixed price contracts
- Feed-In-Tariff – standard offer 20 year fixed prices for renewables to all comers
- Low interest state financing (bonding)
- RPS – if aggressive and enforced
- Change utility regulation (allow them to survive)
- Market-based incentives – Federal and State

# It's possible!



## But it requires a whole new way of thinking