

# 100% MACEDONIA

Transition to 100% wind, water, and solar (WWS) for all purposes  
(electricity, transportation, heating/cooling, industry)



Residential rooftop solar  
**5.6%**



Solar plant  
**38.2%**



Concentrated solar plant  
**0%**



Onshore wind  
**40%**



Offshore wind  
**0%**

## 2050

PROJECTED ENERGY MIX

Commercial/govt rooftop solar  
**8%**



Wave energy  
**0%**



Geothermal energy  
**0%**



Hydroelectric  
**8.2%**



Tidal turbine  
**0%**



### 40-Year Jobs Created

Number of jobs where a person is employed for 40 consecutive years

Operation jobs:



**7,000**

Construction jobs:



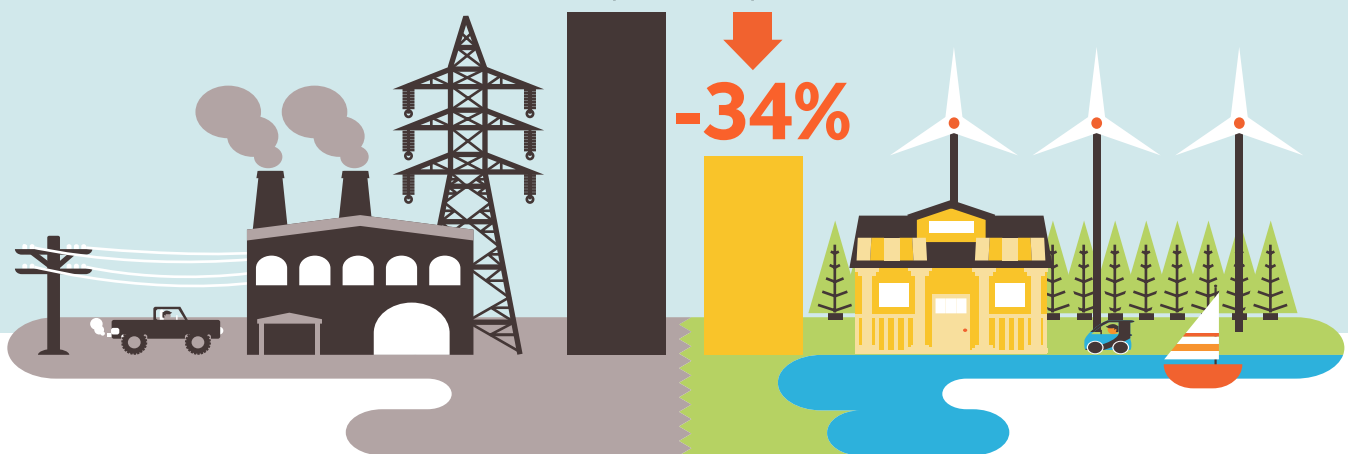
**6,667**

= 1,000

Using WWS electricity for everything, instead of burning fuel, and improving energy efficiency means you need much less energy.

2050 Demand with BAU

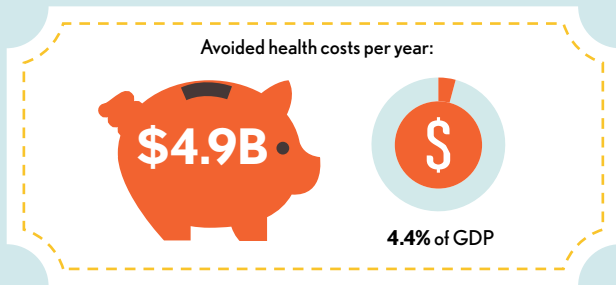
2050 Wind, Water, Solar



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## Avoided Mortality and Illness Costs



Air pollution deaths avoided every year: **474**

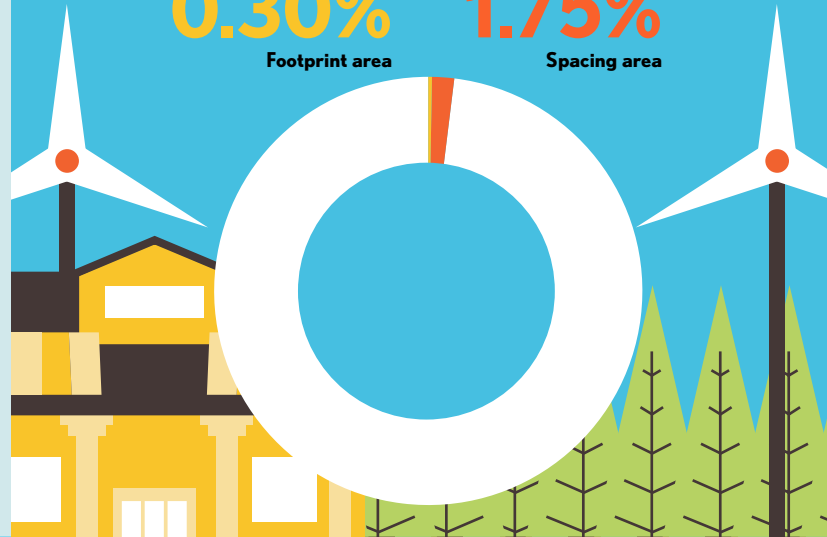


Plan pays for itself in as little as **1.3** years from air pollution and climate cost savings alone.

## Percentage of Land Needed for All New WWS Generators

**0.30%** Footprint area

**1.75%** Spacing area



## Future Energy Costs 2050

● BAU (Business as usual)      ● WWS (Wind, water, solar)



Average fossil-fuel energy costs\*

**9.4 c/kWh**

\*Health and climate external costs of fossil fuels are another 5.7c/kWh



Average WWS electricity costs

**7.5 c/kWh**

## Money in Your Pocket

**(P) = \$500**

Annual energy, health, and climate cost savings per person in 2050: **\$5,550**



Annual energy cost savings per person in 2050: **\$321**

