

Vermont Comprehensive Energy Plan

VECAN

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Energy Resources
Division**

<http://energyplan.vt.gov>



Comprehensive Energy Plan

Team Effort

State Government

- Public Service Dept.
- Agency of Natural Resources
- Agency of Transportation
- Agency of Agriculture, Food, & Markets
- Agency of Commerce & Community Development
- Agency of Human Services
- Dept. of Bldgs & General Services

Community & Business Partners

- Public Comments
- Utilities
- Energy Services Companies and Consultants
- Public Interest Organizations and Community Groups
- Business Community
- Town Energy Committees

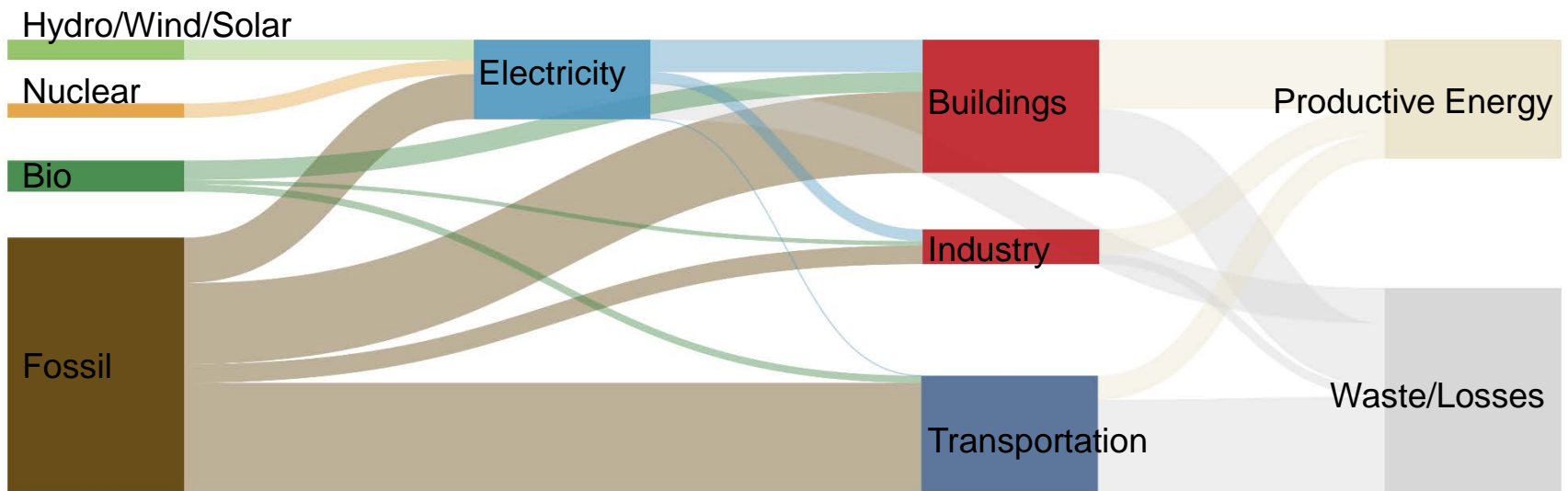
Guiding goals

- ❖ **A vibrant and equitable economy**
- ❖ **Healthy ecosystems and a sustainable environment**
- ❖ **Healthy Vermonters**

Economic, environmental, and human health ideals can be in conflict and implementation of a particular policy or program requires striking balances.

When there is consistency and an action positively impacts all of these areas, it deserves greater priority.

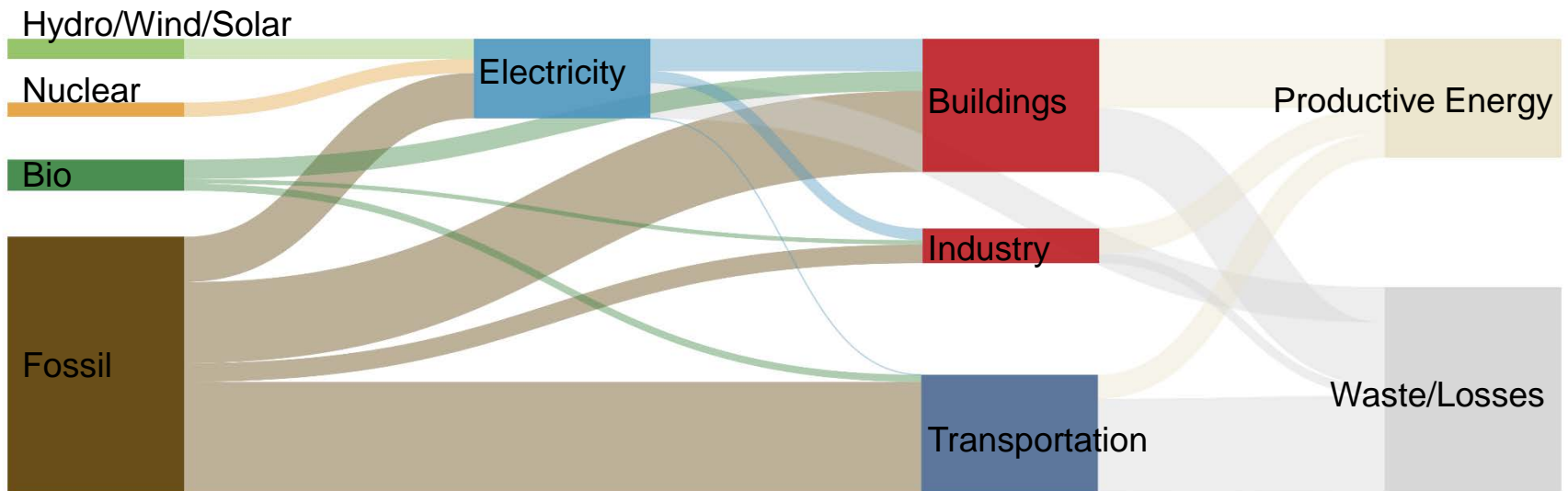
Energy Flows: 2015



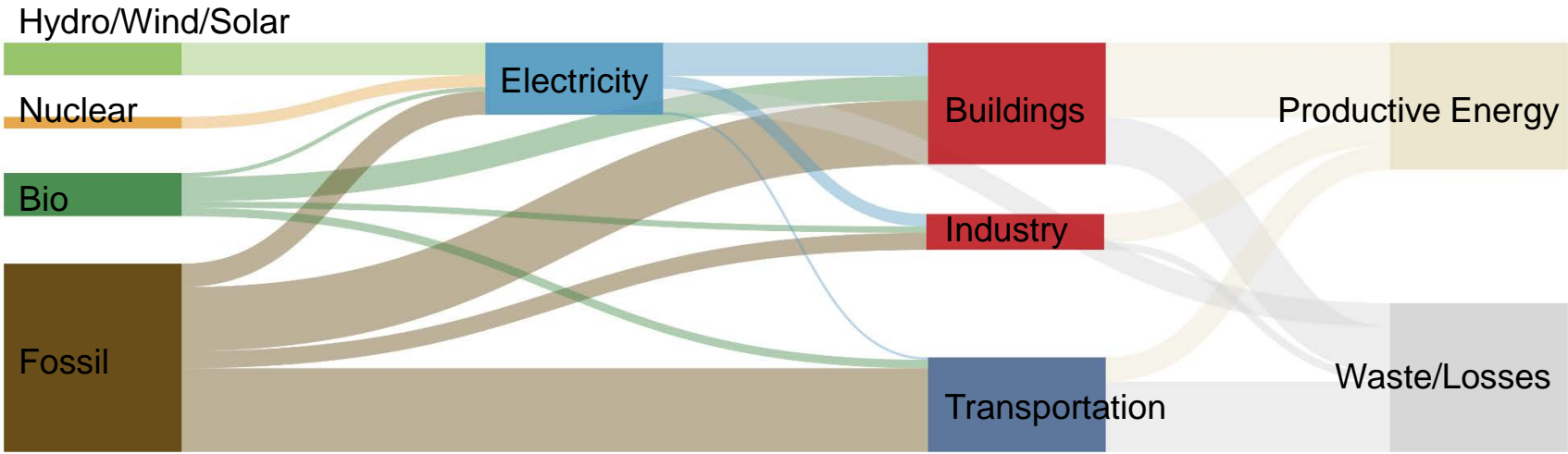
Goals for 2025 and beyond

- Reduce total energy consumption per capita by 15% by 2025, and by more than one third by 2050.
- Meet 25% of the remaining energy need from renewable sources by 2025, 40% by 2035, and 90% by 2050.

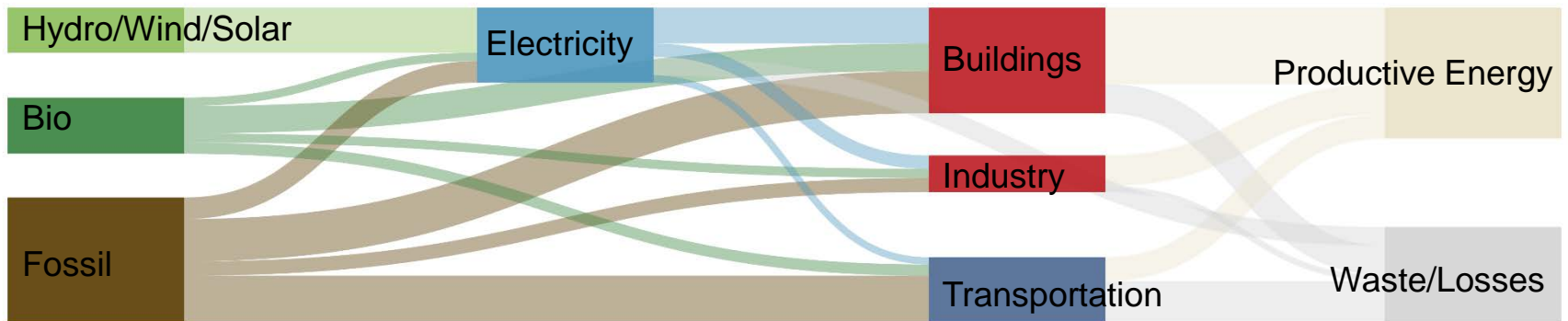
Energy Flows: 2015



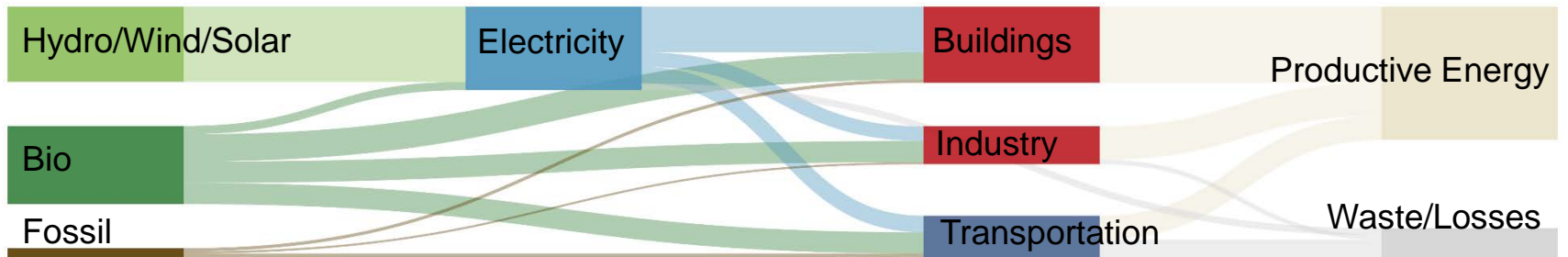
Energy Flows: 2025



Energy Flows: 2035



Energy Flows: 2050



Efficiency – 3 ways

- Continuing improvements in thermal and electric efficiency
- Fuel switching away from combustion technologies to more efficient electric powered technologies
- Declining source energy requirements of electricity generation

Sectoral Goals

Buildings

Goals:

- 30% renewable by 2025
- All new buildings net zero by 2030

Transportation

Goal: 10% renewable by 2025

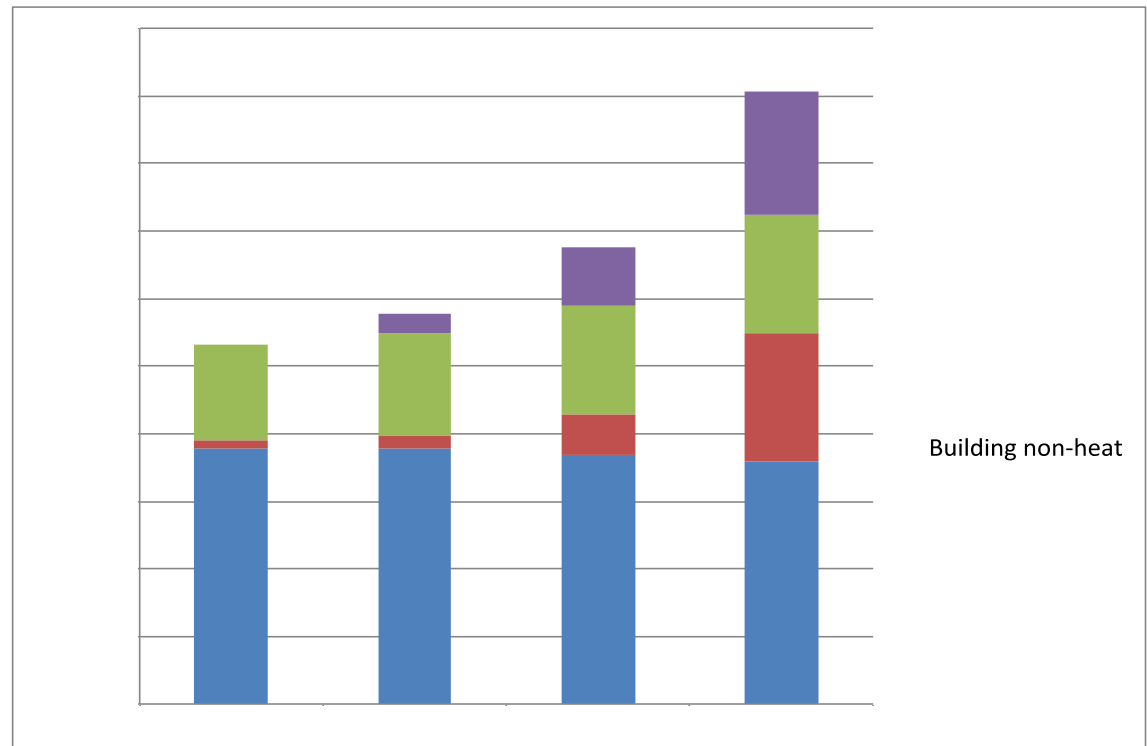
One way to get there:

- Keep VMT per capita at or below 2011 levels
- 10% of all light-duty vehicles plug in
- 10% average bio-content in diesel

Electric Power

Goal: 67% renewable by 2025

Electrifying heat and transport will increase electric energy demand:



Approach to Electric Power

Paradigm shift happening now:

- Growing portion of supply is not dispatchable
- While more demand is becoming controllable
- And storage technology is advancing

Use distributed energy resources (supply, demand, and storage) to manage the grid locally

Lower both bills and rates through efficiency and optimal use of electric infrastructure

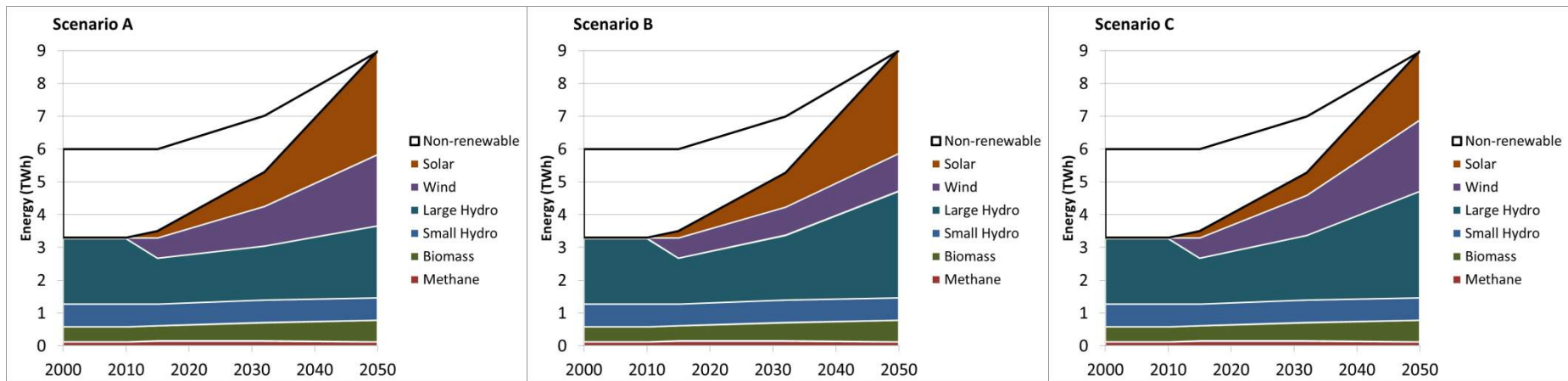
Managing Electric Demand

- Efficiency remains the lowest cost resource: Continue to pursue all reasonably available cost-effective efficiency
- Recognize need for load management of new electric uses (heat and transport)
- Use smart grid and related IT infrastructure to optimize management of the grid
 - Smart rates standard by 2018 for all Vermonters with smart meters (with choice of legacy flat rates)

2032 and 2050 Scenarios

Three illustrative 100% renewable scenarios for 2015 to 2050.

- 75% renewable (with 10% DG) in 2032
- 100% in 2050



For more information on the energy plan go to:
www.energyplan.vt.gov

