

PRESENTATION FOR
ACEEE
ENERGY EFFICIENCY
AS A RESOURCE
LITCHFIELD PARK, AZ
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THE GAME IS CHANGING:

What role does energy efficiency play in the utility of the future?



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DUNSKY OVERVIEW



EXPERTISE

- ▶ **Energy Efficiency** & Demand Management
- ▶ **Renewable Energy** & Distributed Resources
- ▶ **Sustainable Mobility**

SERVICES

- ▶ **Assess** clean energy opportunities
- ▶ **Design** policies, plans, programs and strategies
- ▶ **Evaluate** performance

CLIENTELE

- ▶ Governments
- ▶ Utilities
- ▶ Private firms
- ▶ Non-profits

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2. WHAT DOES THE UTILITY OF THE FUTURE LOOK LIKE?

3. WHAT IS THE ROLE OF ENERGY EFFICIENCY?

-- ENERGY EFFICIENCY IN THE RESOURCE MIX

-- ENERGY EFFICIENCY AS THE CORNERSTONE RESOURCE

The game is changing.



What does the utility of the future look like?



- Good question; no clear answer at this point.
- We do know that certain drivers are shaping the utility of the future:
 - ▶ **Innovations in technology and data analytics** that create new platforms for communicating with consumers and providing services
 - ▶ More **consumer choice**, and they are voting with their feet
 - ▶ **Public policy mandates** that require significant new investment in clean energy resources and decreased reliance on fossil fuels
 - ▶ Relatedly, a push toward **electrification of buildings and transportation** to meet the commitments
 - ▶ A move to **integrate more distributed energy resources** such as behind-the-meter solar PV and storage
 - ▶ A need to **modernize the grid** to allow for improved grid insights and facilitate two-way flow of electricity

What is the role of energy efficiency?



1. Energy efficiency will play a central role in the utility of the future. Without it we cannot meet our public policy goals at least costs to consumers.
2. We need to move beyond simply thinking of energy efficiency as the first energy resource. It is that, but it is also much more than a standalone clean energy resource:

Energy efficiency is the cornerstone resource that will connect the pieces of the energy transition.

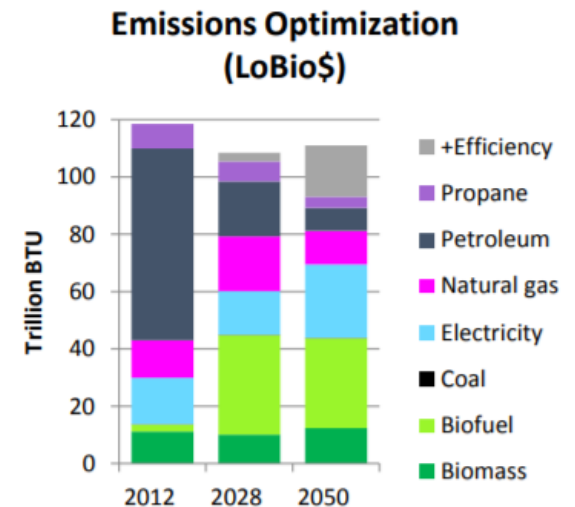
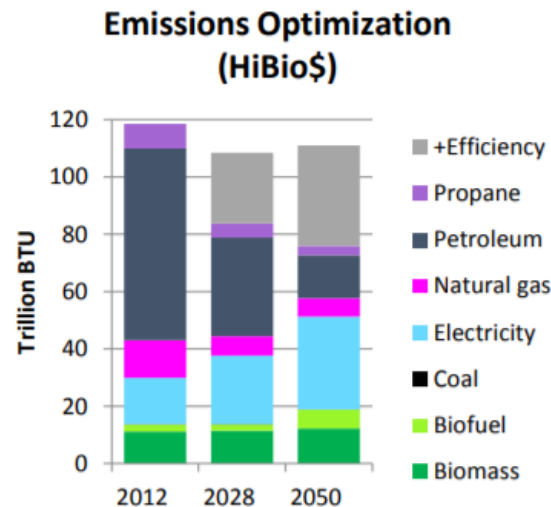
Energy efficiency in the resource mix.



- Energy resource pathway exercises show **energy efficiency will play a central role in the new energy economy**, and thus the utility of the future's services.
- This was the case in the **Vermont Total Energy Study**, which included a comprehensive modeling assessment led by Dunsky using the FACETS optimization model

Spotlight on Efficiency:

The study found that investment in energy efficiency beyond the already aggressive levels in the BAU scenario is needed to achieve Vermont's mid and long-term GHG and clean energy goals.

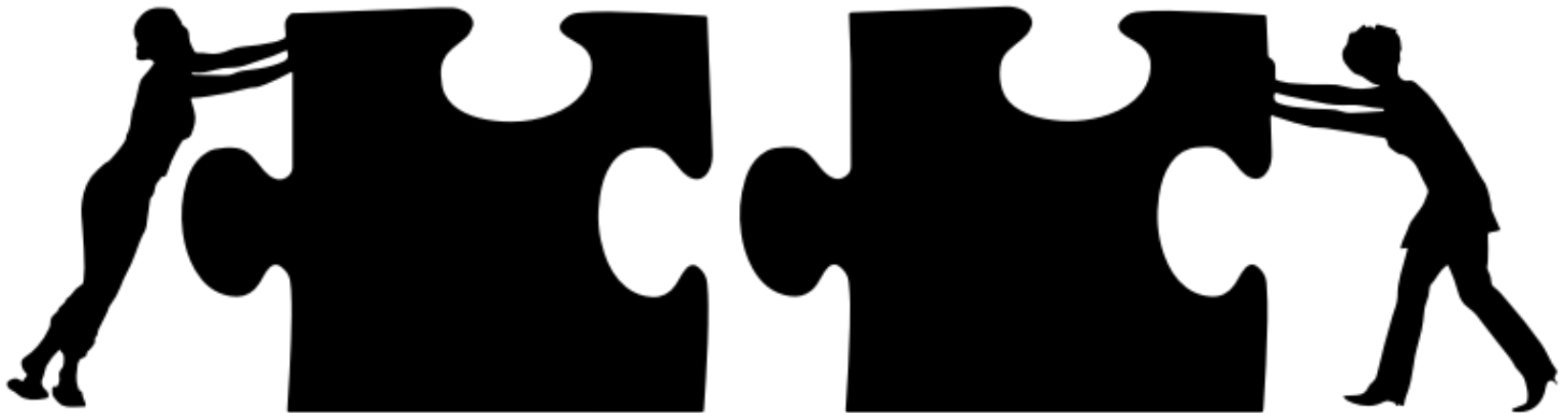


EE as the cornerstone resource.



- Can go beyond ramping up energy efficiency programs
- Use energy efficiency to bring the pieces together and help facilitate the transition
 - ▶ **Help optimize grid investments** – Geotarget EE to high-value locations to help avoid more costly infrastructure upgrades
 - ▶ **Help integrated Distributed Energy Resources (DERs)** – Use energy efficiency programs to deploy Active Load Management to help integrate DERs and generally optimize the grid
 - ▶ **EE programs can help facilitate fuel switching** – For example, incorporate efficient heat pumps into EE programs
 - ▶ **EE programs are an important touch-point with utility customers** – New analytics and engagement platforms for EE programs can enhance customers experience and be a jumping off point for organizing energy services
 - ▶ **Transportation efficiency!**

EE and the utility of the future...



QUESTIONS ?

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