

Green Retrofits: Return on Investments - Sustainability Marketplace Observations



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Overview of Key Sustainability Market and Regulatory Drivers

▪ **Market Economics**

- Supply and Demand of Green Buildings
- Creating Value for the Client Portfolio
 - The “Energy-NOI Nexus”
- Incentives - Federal, State, Local, Utility, NGOs
- Carbon as an “Occupancy Cost”

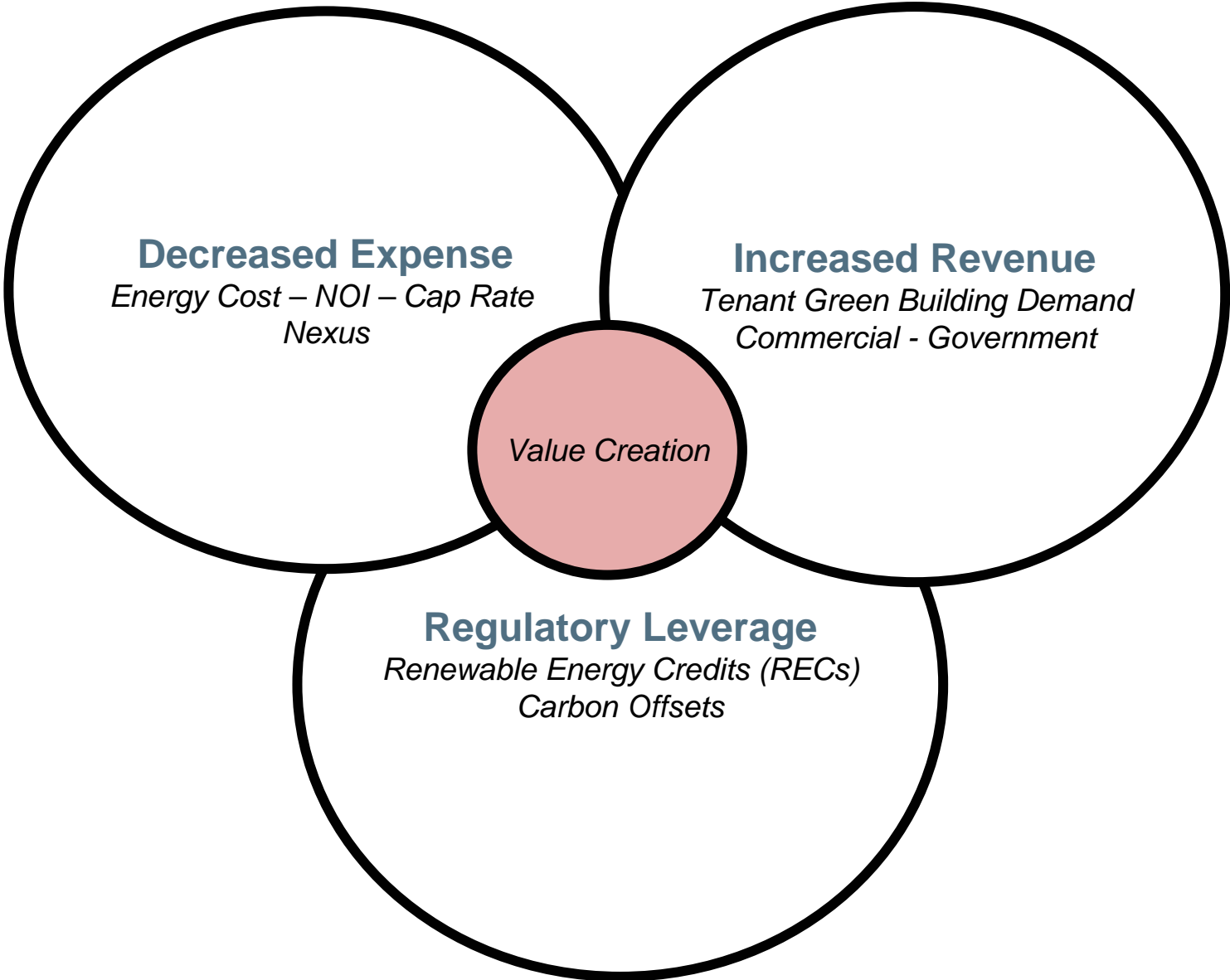
▪ **Identify and Creating “Carbon Assets”**

- Carbon as the new “Plastic”
- A New “Stick in the Real Property Bundle”
- Carbon Trading Market: International, Federal, Regional, State
- Sustainability Due Diligence: Evolution of the Process
 - -Energy Star, LEED, Capital Markets Partnership CMP Green Score / ANSI (www.CapitalMarketsPartnership.com) ASTM

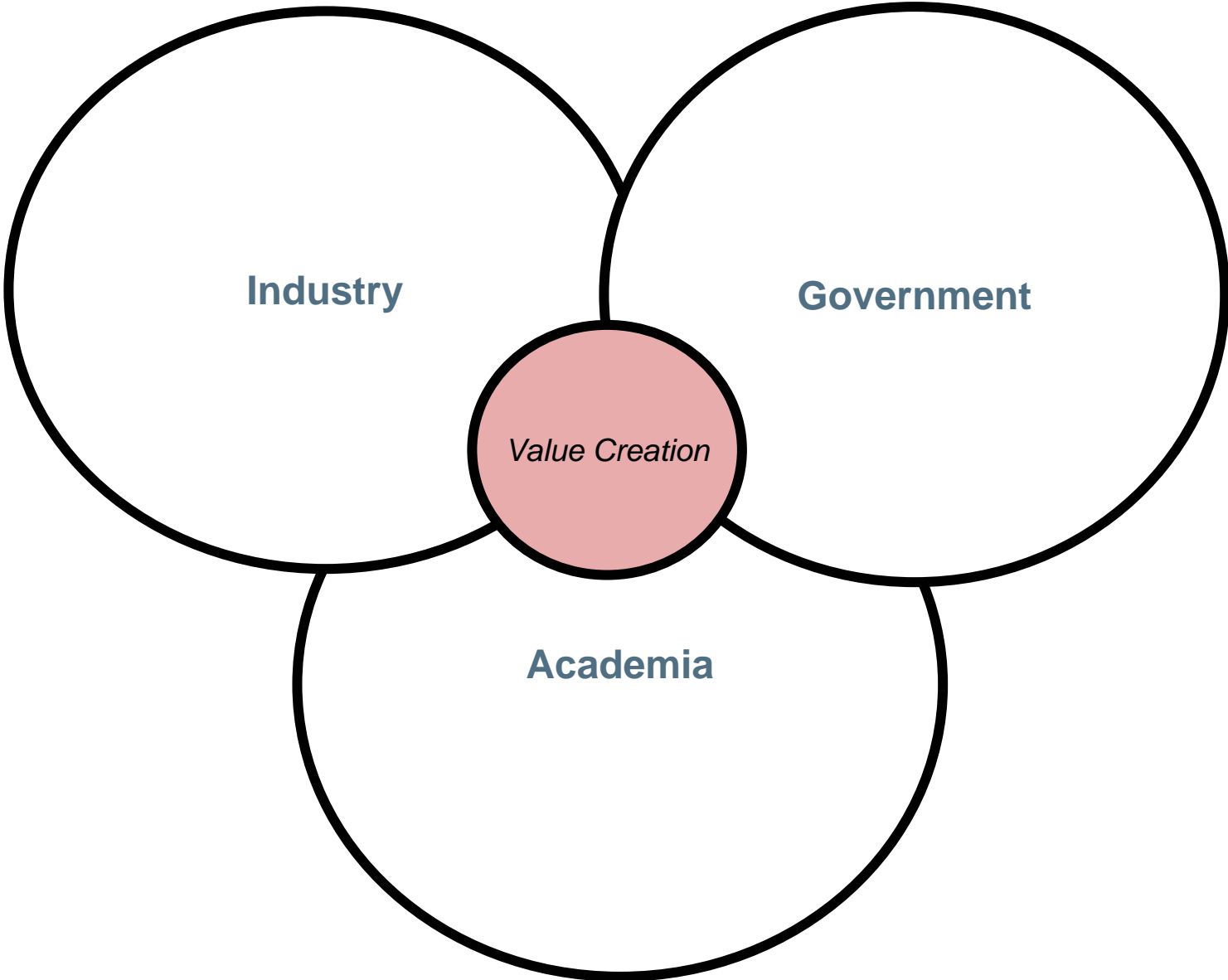
▪ **Regulatory Obligations / Mandates**

- Greenhouse Gas (GHG) Reductions – A Cost on Carbon
- Energy Efficiency Mandates
- Transactional Energy Disclosure Requirements - California AB 1103: Effective 1/1/10; EU Model

Value Creation Drivers



Value Creation Drivers - A New Paradigm



Value Creation Drivers

Decreased Expense
*Energy Cost – NOI – Cap Rate
 Nexus*

	Before	After
Gross Rent	\$20	\$20
Utility/Energy Expense	\$3	\$2
Net Rent	\$17	\$18
Net Gain PSF		\$1
Square Feet	100,000	100,000
NOI Increase		\$100,000
Cap Rate		8%
Value Creation		\$1.25 Million

*Capitalization (“Cap”) Rate = Required investment return based on capital invested.
 At a given Net Operating Income (NOI), a higher Cap Rate implies a lower value*

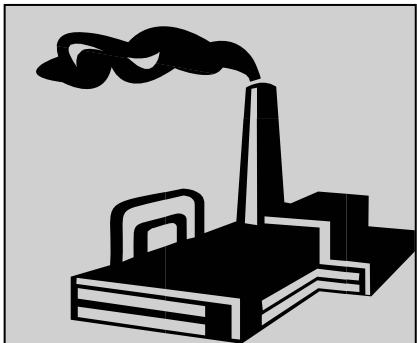
Value Creation Drivers

Increased Revenue
*Tenant Green Building Demand
 Commercial - Government*

	Before	After
Gross Rent	\$20	\$22
Utility/Energy Expense	\$3	\$2
Net Rent PSF	\$17	\$20
Net Gain PSF		\$3
Square Feet	100,000	100,000
NOI Increase		\$300,000
Cap Rate		8%
Value Creation		\$3.75 Million

*Capitalization (“Cap”) Rate = Required investment return based on capital invested.
 At a given Net Operating Income (NOI), a higher Cap Rate implies a lower value*

Avoiding Carbon Occupancy Costs



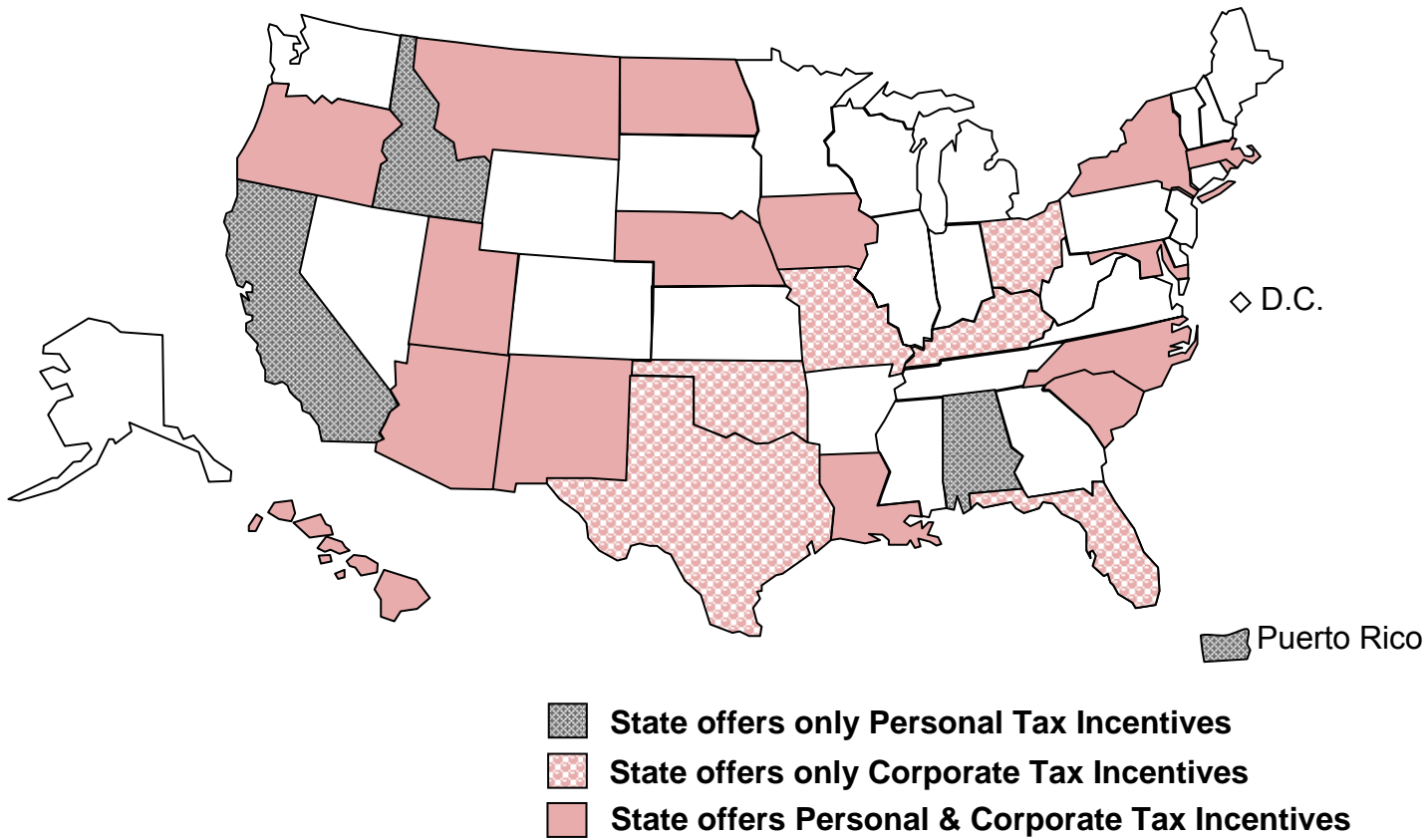
Carbon Tax / Offset
Required



Carbon Tax / Offset
NOT Required

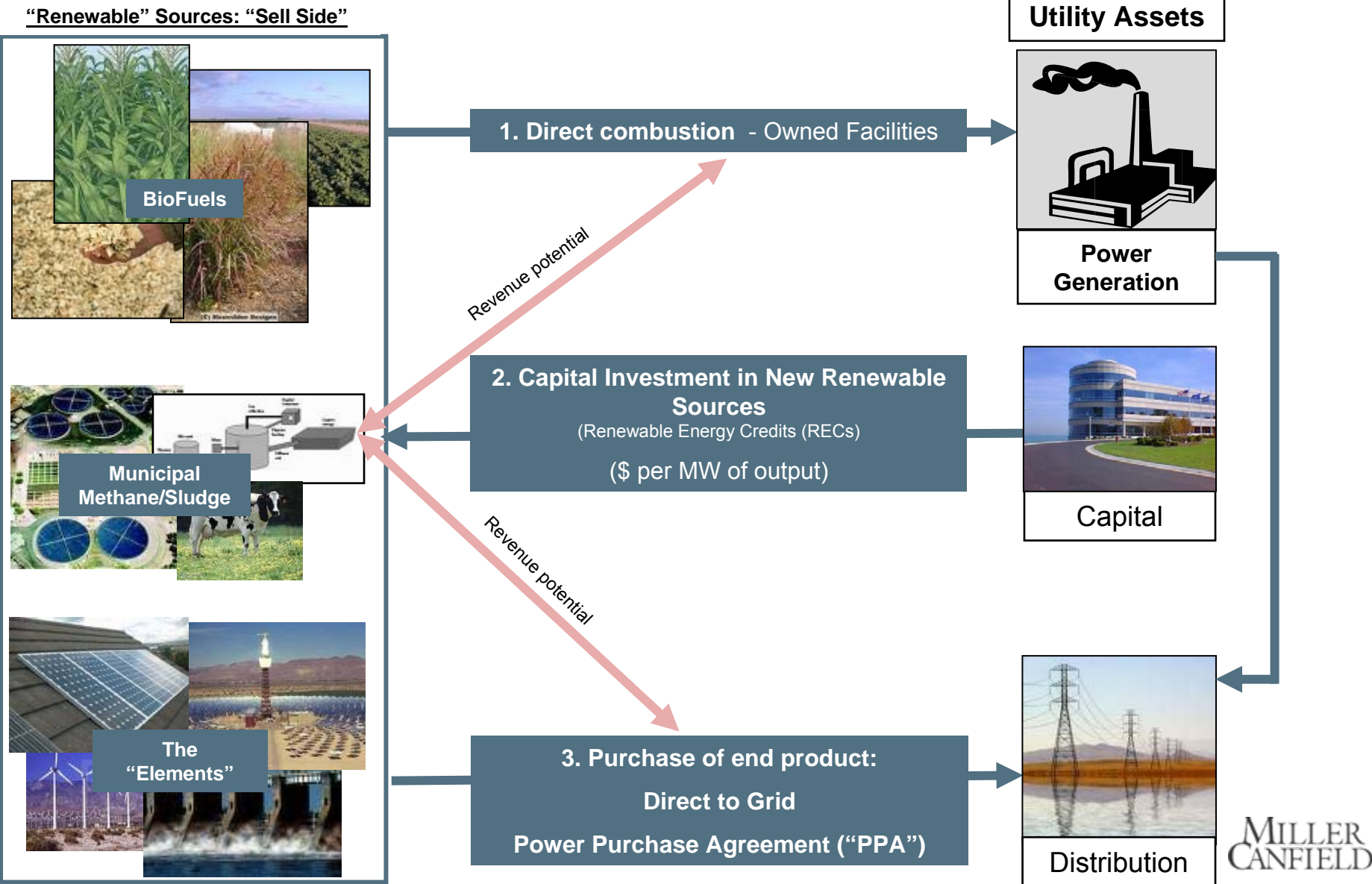


State Tax Credits & Deductions for Renewables

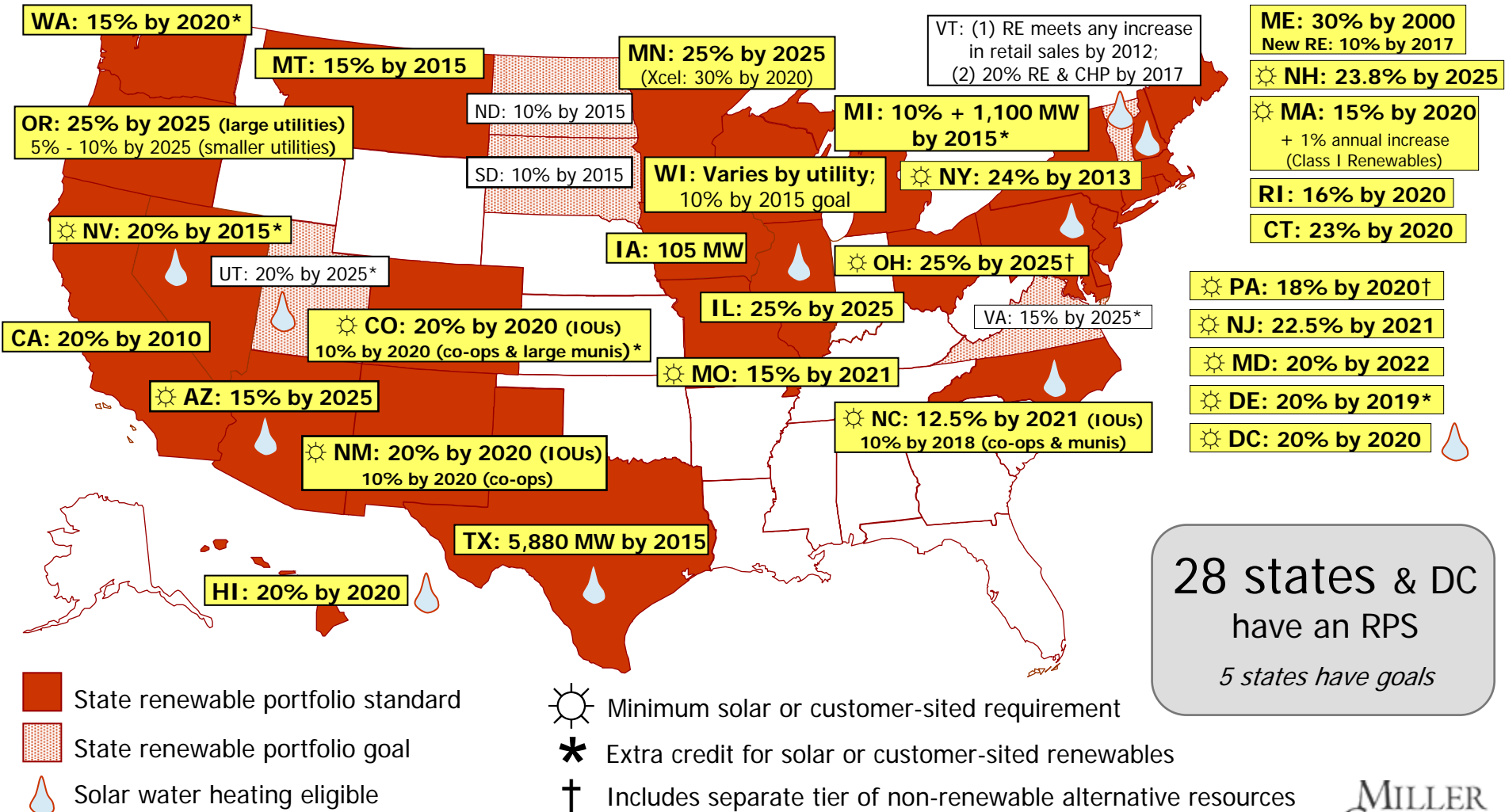


Renewable Portfolio Standards RPS

Creating Renewable Energy Credits (RECs): Three Means of Compliance



Renewable Portfolio Standards



28 states & DC
have an RPS
5 states have goals

Summary

- Educate yourself. Continually.
- Focus on opportunities as well as risks.
- Monitor constant fluctuation and evolution in the marketplace.
- Create a competitive advantage for your firm