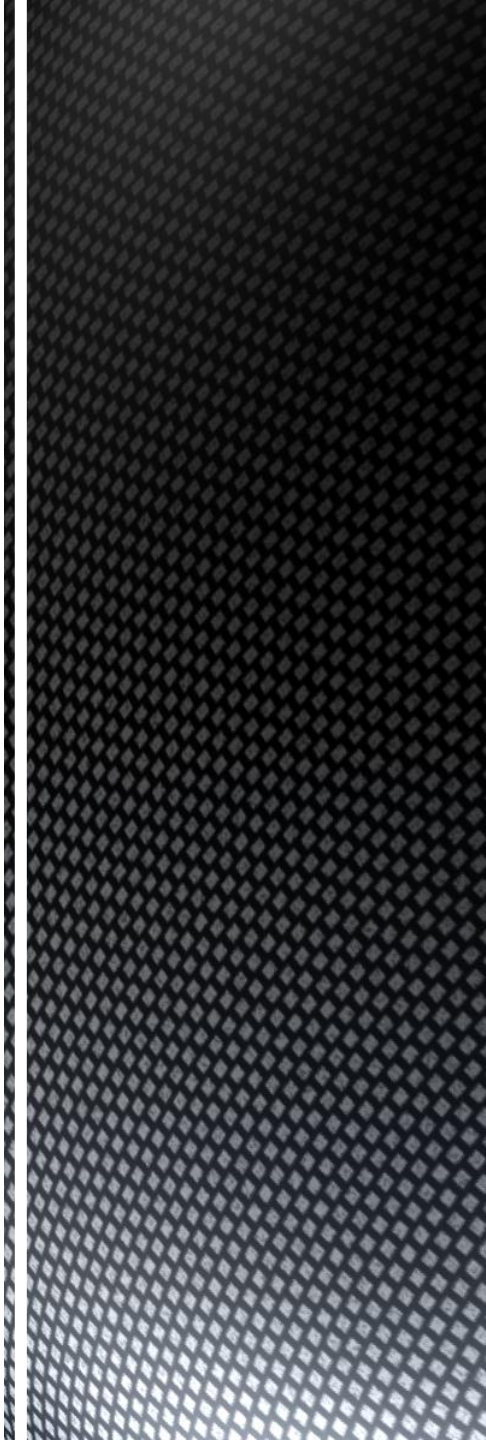
Energy Efficiency as a GHG Compliance Mechanism:

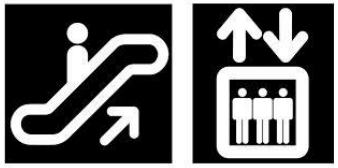
A perspective from private sector providers



Who we are

- Group of companies focused on manufacturing products and offering services that drive demand side energy efficiency in the built environment
  - Group includes Honeywell, Johnson Controls, Ingersoll Rand, Schneider Electric, Siemens and United Technologies
- Global reach & substantial U.S. footprint: 218,000 U.S. employees, 330 U.S. manufacturing facilities, Tens of billions of dollars in annual U.S. sales of energy efficient equipment and services



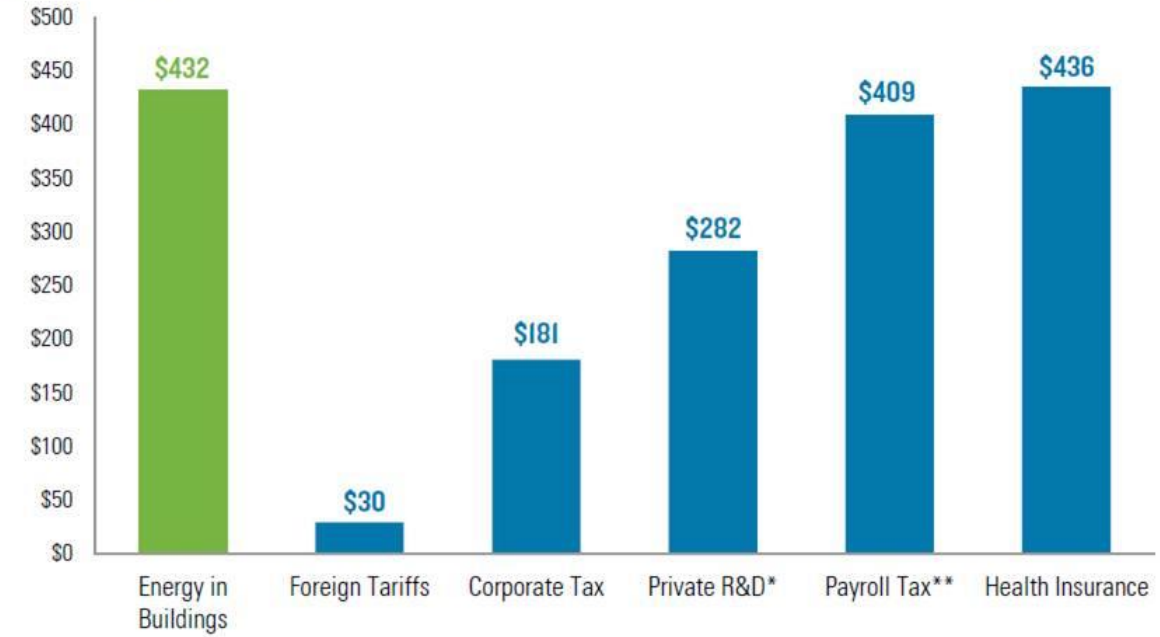

What brings a group of competitors together?

- We believe climate change can be cost effectively addressed by focusing aggressively on energy efficiency. The forthcoming 111d rulemaking should embrace energy efficiency as a pathway for state compliance.
- Our coalition believes we have something unique to offer in the discussion of this issue, namely expertise on:
  - Delivering demand side energy efficiency in numerous forms
  - How to use measurement and verification to accurately capture real CO2 reductions through energy efficiency programs and projects
  - The market barriers to greater demand side energy efficiency uptake in various market segments

Honeywell
Johnson Controls
SIEMENS
Schneider Electric
IR Ingersoll Rand
United Technologies

Why Energy Efficiency?

Figure 4: Energy Expenditures in Context



Source: CBO, 2013; EIA, 2012a, 2013a; NSF, 2012; OMB, 2013 and Rhodium Group estimates. *2009 data. **Employer contribution only.

- Residential and commercial buildings account for 40 percent of all energy consumed in the U.S. That's on par with what US businesses spend on employee health insurance and more than they pay in payroll taxes

What do we want to see under 111(d)?

1. Demand side energy efficiency must be a legally allowable and practically feasible compliance option for states and power generators
   - EPA should provide guidance to States on presumptively approvable energy efficiency provisions in compliance plans. This means EPA should be explicit, not silent, while giving States the ability to adapt and innovate.
2. Allowable mechanisms that support private sector projects
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3. Support for performance contracting, as it is a unique energy efficiency delivery vehicle
   - We believe this mechanism has a strong track record of success and can be scaled to deliver substantial CO2 reductions through energy efficiency.
4. Mechanisms for assuring the delivery of energy savings that balance the need for oversight with the demand for marketplace flexibility
   - As an example, audit mechanisms that stay focused on delivered results vs. means of getting there. Focus must be assurance of delivered savings.

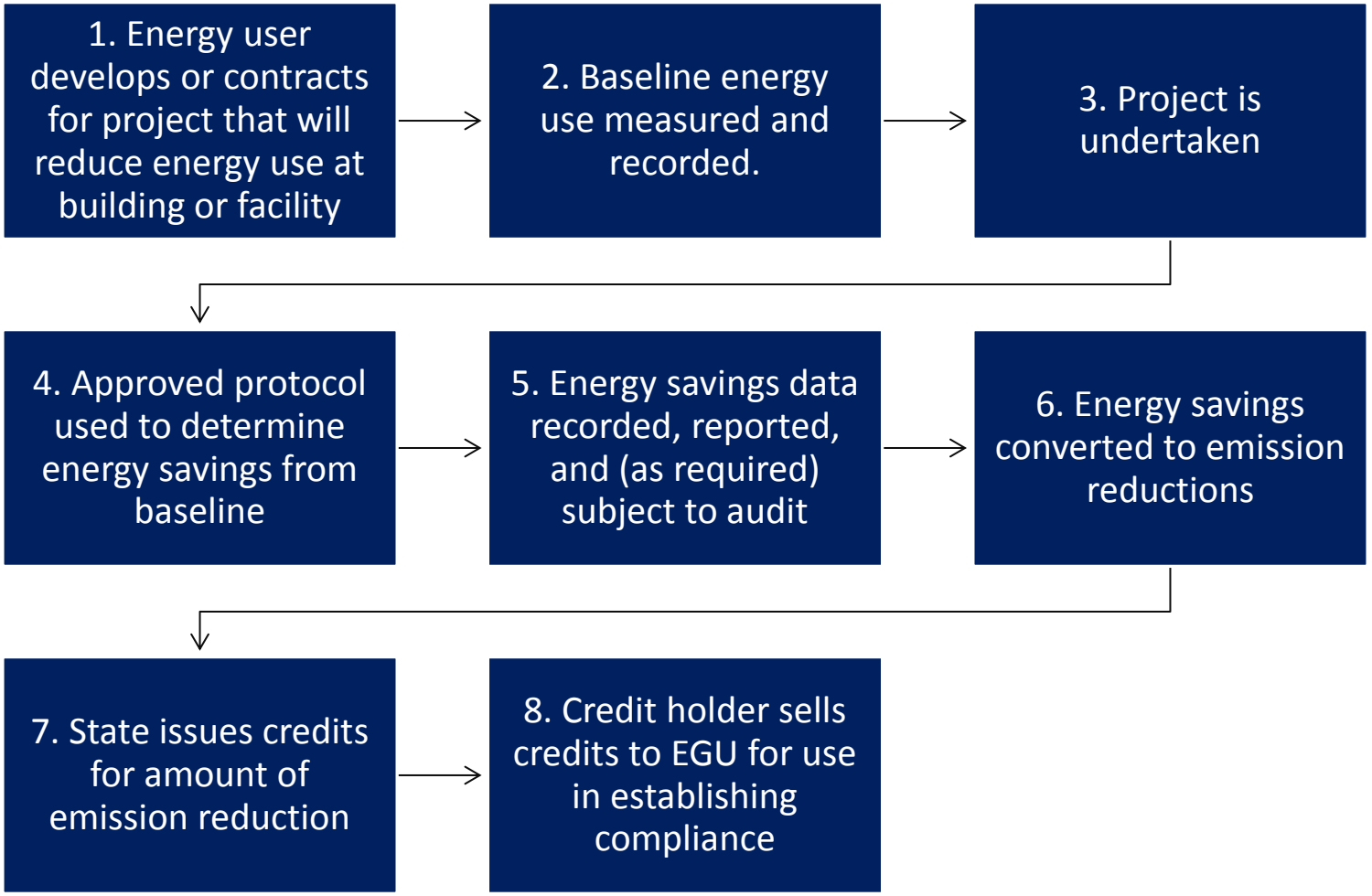
Unique role for performance contracting in private sector projects

- **Performance contracting provides guaranteed energy savings.** It has built-in M&V as well as true-up requirements, to ensure savings are delivered.
- **The approach works.** According to Lawrence Berkley National Labs ESPC database, over 18 years and ~2,500 projects, 85% delivered on or exceeded their savings targets.
- **Performance contracting can be scaled up.** Even within market segments that are considered "strong" for performance contracting, uptake is still lacking.

Table 5. Median ESCO market penetration estimates: % of total market floor area addressed by performance-based contracts since 2003[35]

Market Segment	U.S. Census Region				
	Northeast	Midwest	South	West	U.S.
K-12 Schools	45%	40%	42%	30%	42%
State / Local	39%	30%	30%	45%	30%
Federal	27%	28%	25%	27%	28%
Universities/Colleges	25%	25%	23%	30%	25%
Public Housing	20%	15%	18%	18%	18%
Health/Hospitals	10%	10%	15%	15%	10%
Private Commercial	10%	6%	8%	9%	9%

Crediting mechanism concept



Opportunities exist to look at precedent elsewhere. The UK's Carbon Reduction Commitment Scheme and India's Perform-Achieve-Trade scheme are both regulatory instruments that require verified energy reductions and create tradable credit pools

Where do we stand on other critical considerations under the 111(d)?

- We recognize that there are many significant decisions which will occur under this rule. However, we do not believe it is our place to weigh in on all of them. Specific issues which fall into this category include:
  - Baseline
  - Stringency
  - Mass vs. rate-based
  - Emissions crediting methodologies

We are sticking to what we know: demand side efficiency programs CAN deliver real kW reductions and these reductions CAN be translated into emissions reductions

Conclusion

- EPA should provide clear guidance and encouragement to the States on how to integrate demand side energy efficiency as a low cost compliance tool
- We want to work with states as you design compliance plans to incorporate demand side efficiency and to offer our expertise on how to assure energy savings in ways that are robust and assured but also work in the market

Questions

- What help or guidance do you believe private sector efficiency providers can offer?
- What challenges do you face creating when creating plans for your state?

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