

Moving Forward to a Smarter Energy Reality





- World-renowned research center in Niskayuna for 100+ years
- More than 3,000 GE Energy employees and 12,000 total GE employees
- 12 major manufacturing operations
- Executive training center in Crotonville
- Working with NY to deploy smart grid solutions
- GE Foundation donating nearly \$30 million to NYC-area education initiatives



Why Everyday People Need Us To Move Forward

- **We need more power**
 - By 2030, more than 60% of the global population will live in cities
- **Power must remain affordable**
 - Double-digit price increases are already commonplace
- **Sustainability must be achieved**
 - More than 40% of our current emissions are from electric generation



Why the Energy Industry Needs Us To Move Forward

- **Industrialized nations are living on borrowed time**
 - More than 50% of installed transformers are reaching the end of their design life
- **Emerging economies will compete for resources**
 - Per capita electricity use will soar around the globe
- **Prosperity vs sustainability**
 - Competitiveness will be determined by our ability to grow in a prosperous yet sustainable manner



imagination at work



There is no
“Smart Energy”
switch...

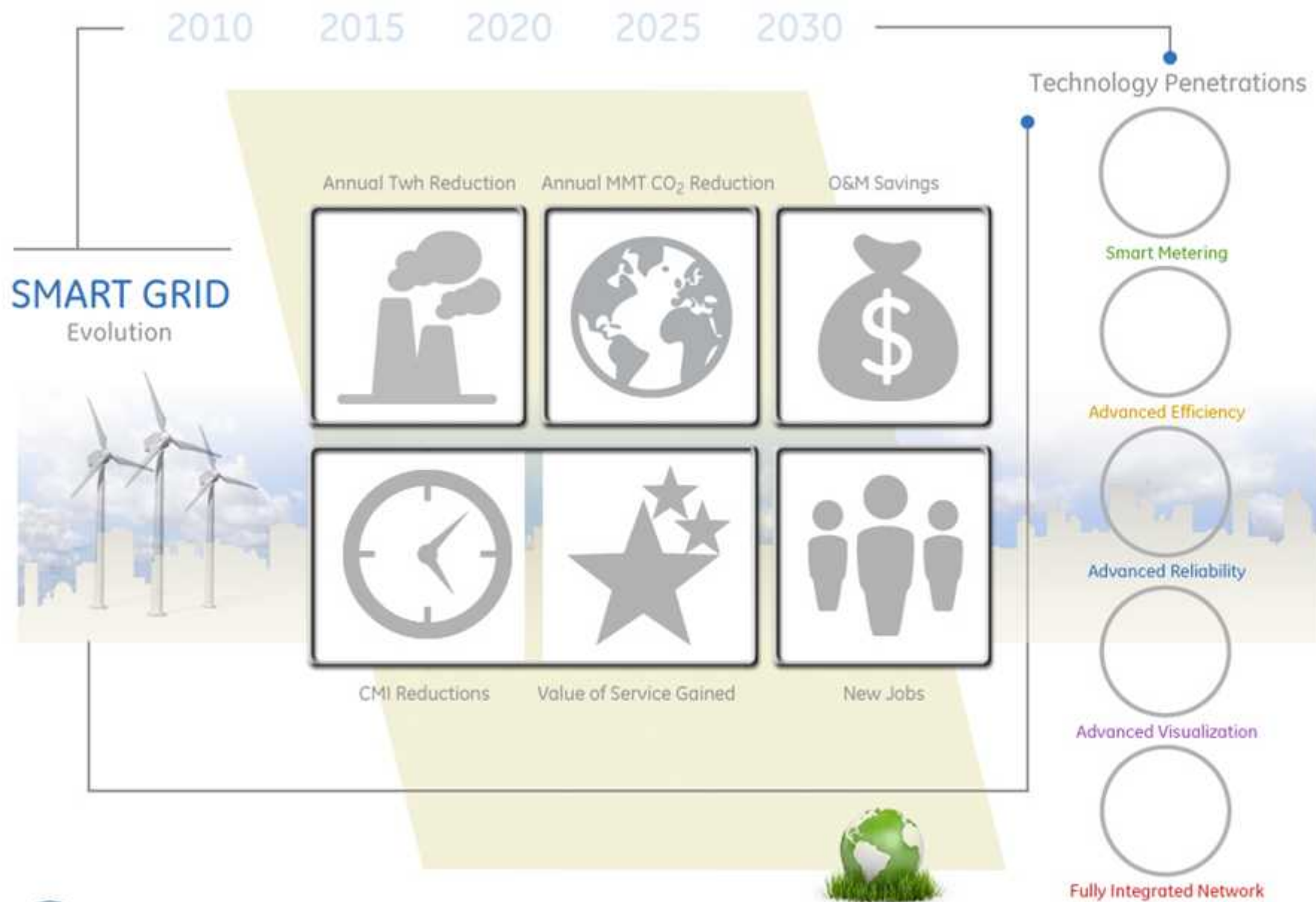
to solve our power
problems

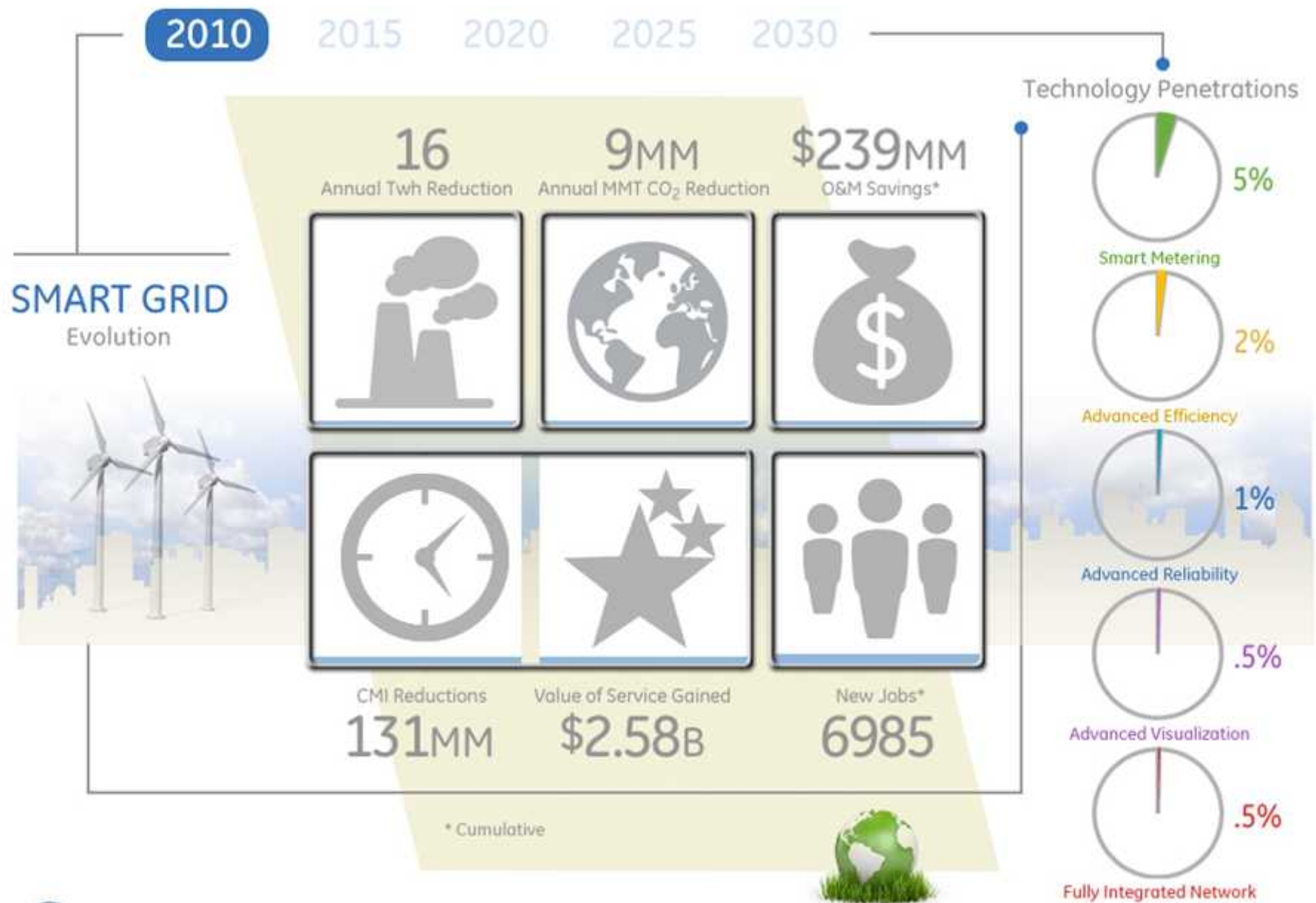


imagination at work



- Today's investments build the foundation for a sustainable energy future
- As our energy landscape evolves, benefits will kick in gradually
- Ratcheting up our collective Grid IQ moves our energy prospects from dim to bright

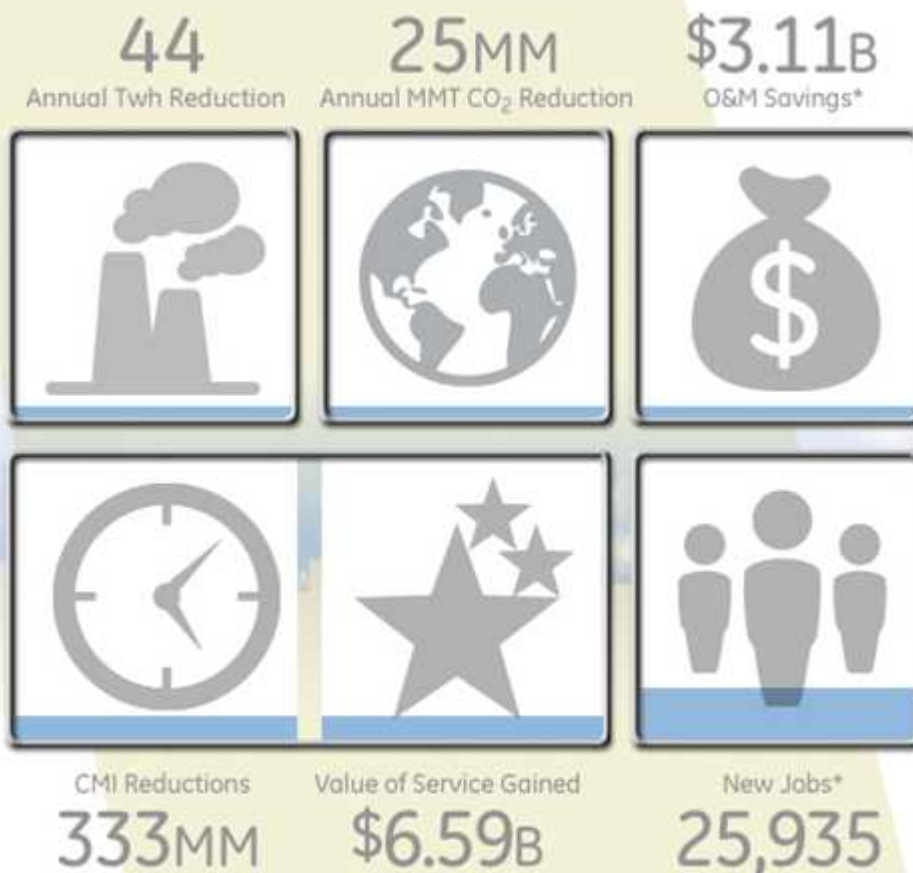




imagination at work

2010 2015 2020 2025 2030

SMART GRID Evolution



* Cumulative

Technology Penetrations

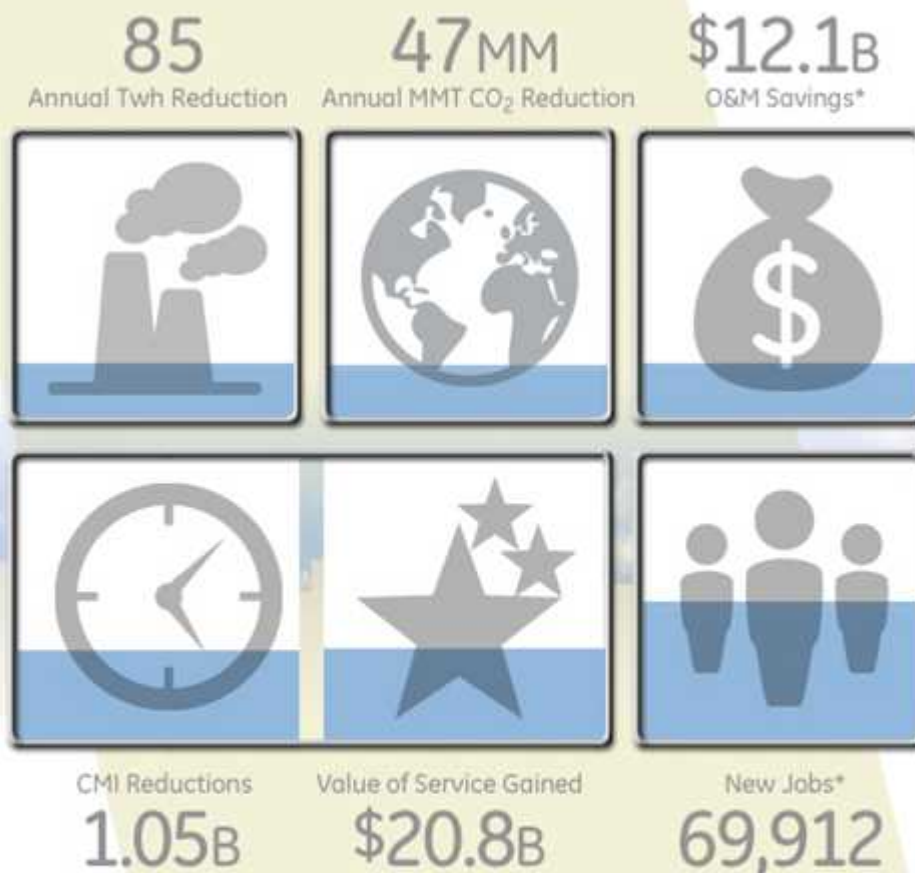


imagination at work



2010 2015 **2020** 2025 2030

SMART GRID Evolution



* Cumulative

Technology Penetrations

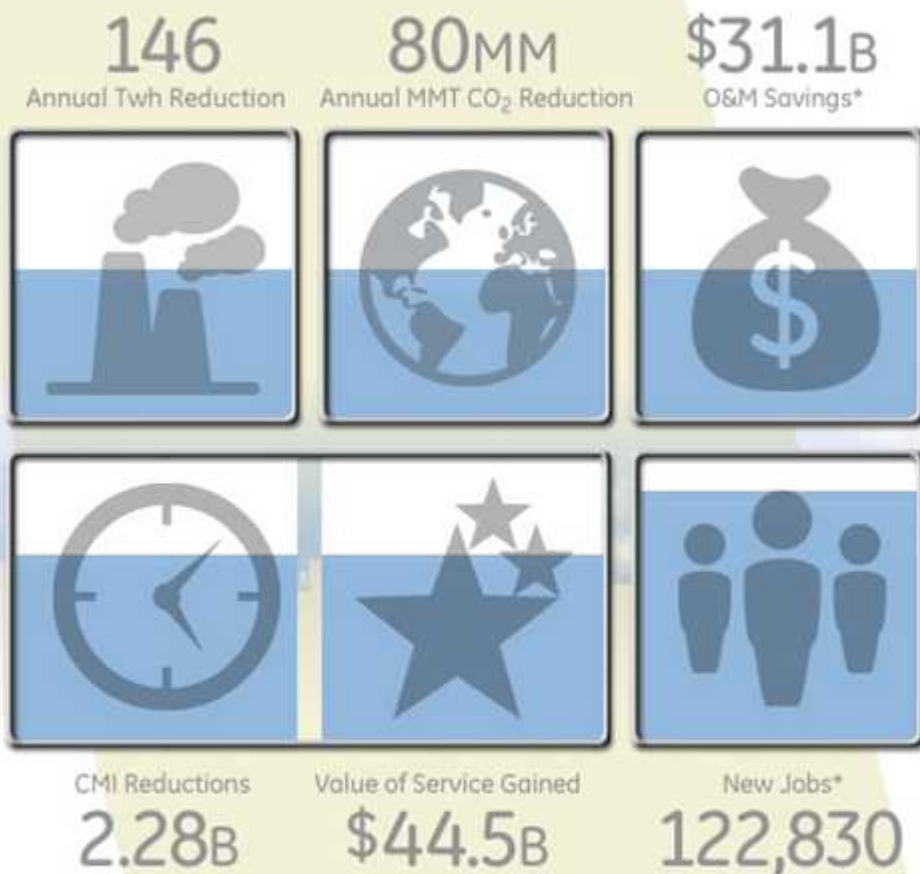


imagination at work



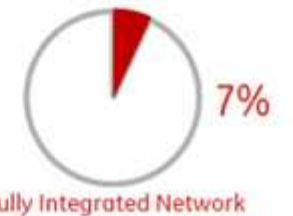
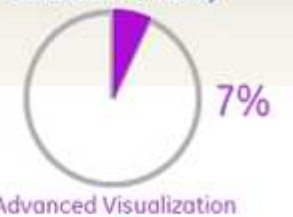
2010 2015 2020 **2025** 2030

SMART GRID Evolution



* Cumulative

Technology Penetrations



imagination at work



2010 2015 2020 2025 **2030**

SMART GRID Evolution



* Cumulative

Technology Penetrations



imagination at work

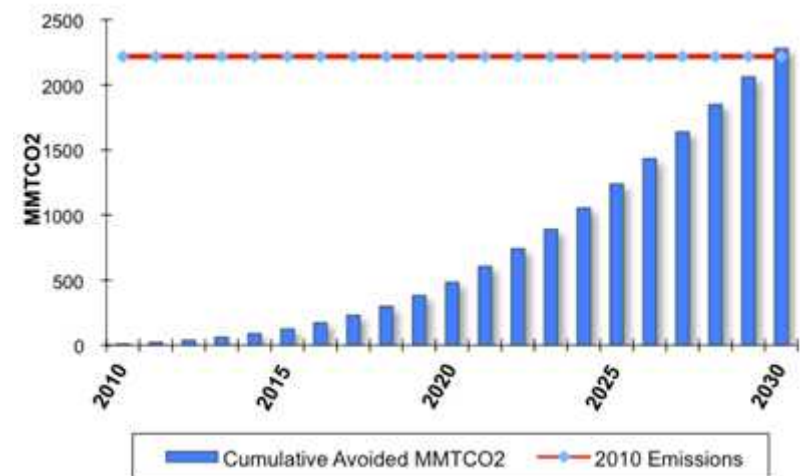




Net result:

Like 2010 never happened

If these very conservative smart grid adoption estimates prove true, the savings will exceed our total electrical consumption and electrical CO₂ output for 2010





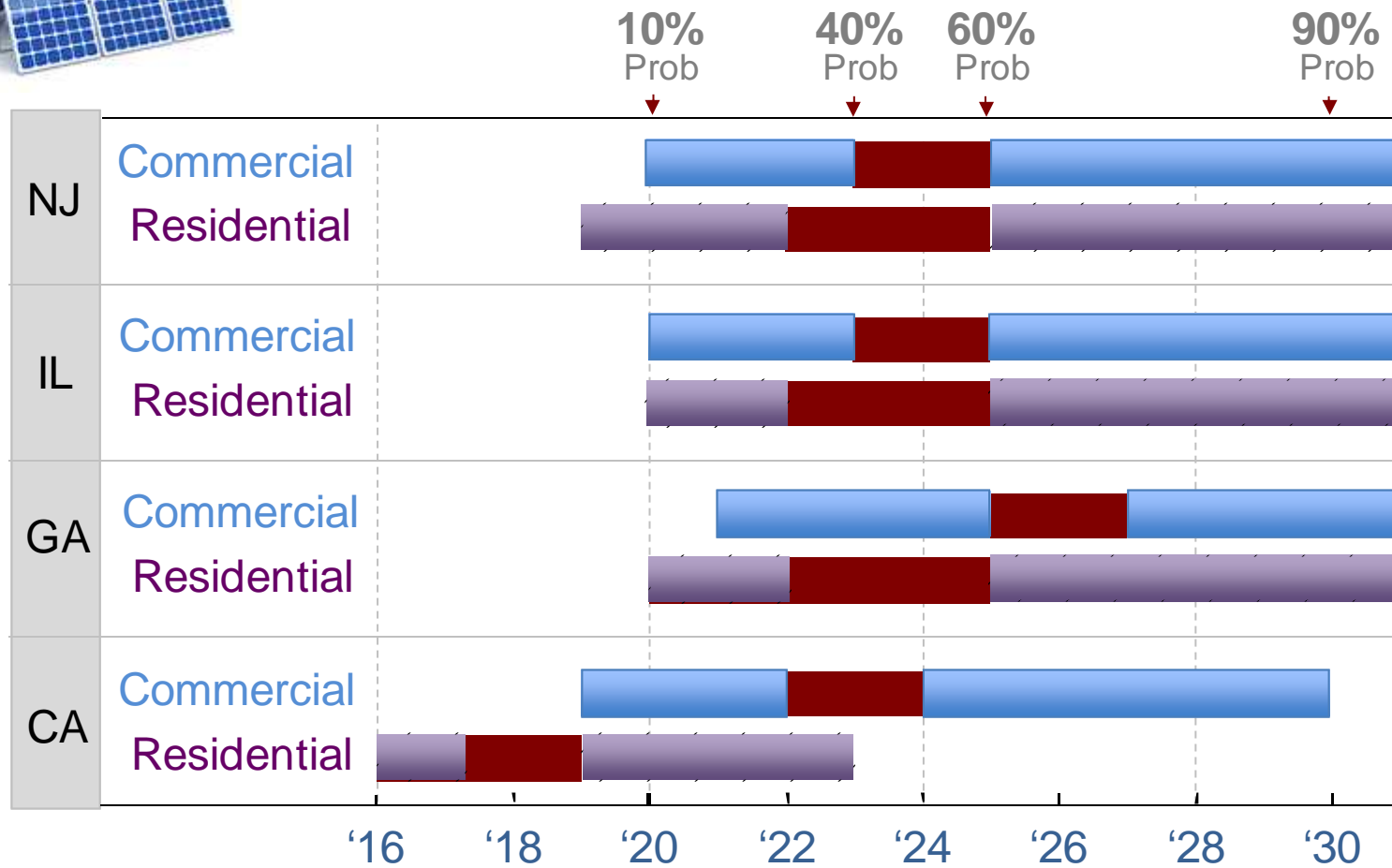
More Results: New lifestyle options

- 73% of cars, SUV's and pickup trucks or 84% of light duty vehicle fleet could be powered by existing electrical generation, transmission and distribution*
- Green house gas emissions ... reduced 27% max
- Organic compounds down 93%, CO₂ down 98% and NOX down 31%
- Reduce oil imports by 6 million barrels per day

*Impacts assessment of plug-in hybrid vehicles on electric utilities & regional U.S. power grids Pacific Northwest National laboratory, Nov. 2007



More Results: Mainstream distributed solar PV Grid Parity is Coming ... without incentives



10-25% IRR's today in AZ, CT, HI, MA, NJ, & OR with incentives

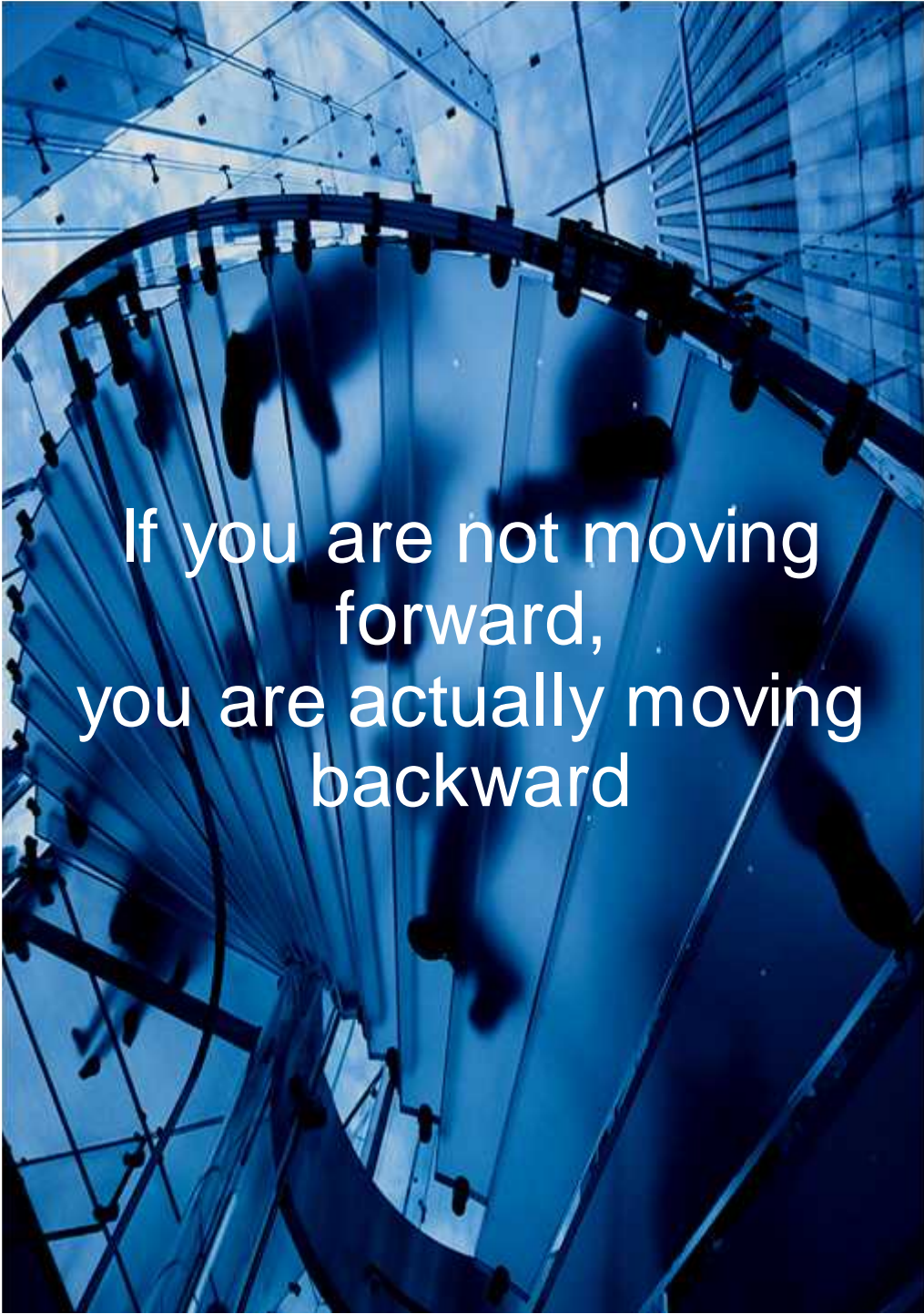
Smart Policies Help Us Move Forward

Policymakers...establish the targets

1. Energy Efficiency resource standard
 2. Peak load reduction standard
 3. Clean energy standard
-

Regulators...provide the incentives

1. Cost recovery guidelines
2. Innovative rate designs
3. Equal treatment of demand-side resources



If you are not moving
forward,
you are actually moving
backward

- Energy-savvy regions will leapfrog late-adopters in business, lifestyle and opportunity
- The revolution begins with the first steps of the evolution
- Smart grid technology and software foundations are scalable, adaptable and flexible for future breakthroughs
- Forward-thinking decisions today ensure a secure, robust energy tomorrow