

environ



Nourishing Today
Sustaining Tomorrow

ENVIRONMENTAL, LABOR, AND SAFETY CONFERENCE

April 2024

INTRODUCTION



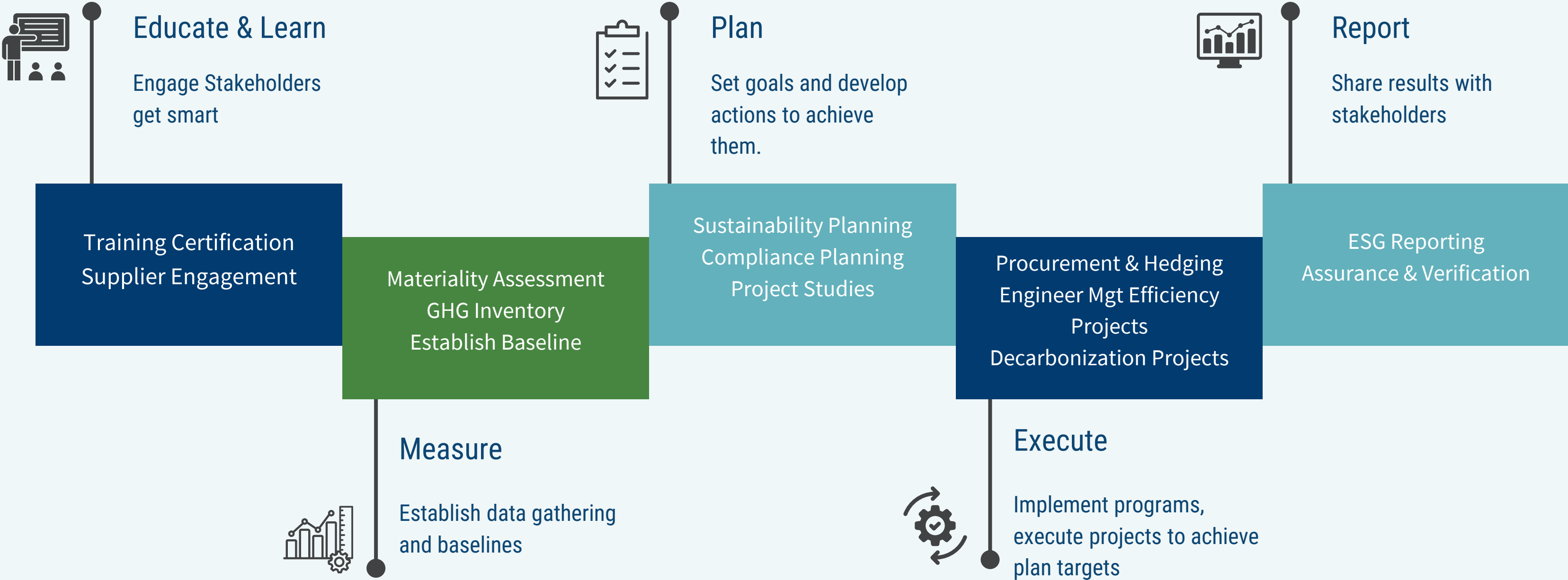
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CONSIDERATIONS WHEN EVALUATING ENERGY EFFICIENCY AND SUSTAINABLE PROJECTS AND SOLUTIONS



MEASURE

Collect Data

- What historical data do you or your utility have?
- Specific behind the meter telemetry
- What's fuels do you use?
- Start saving all invoices!

Establish a data gathering protocol

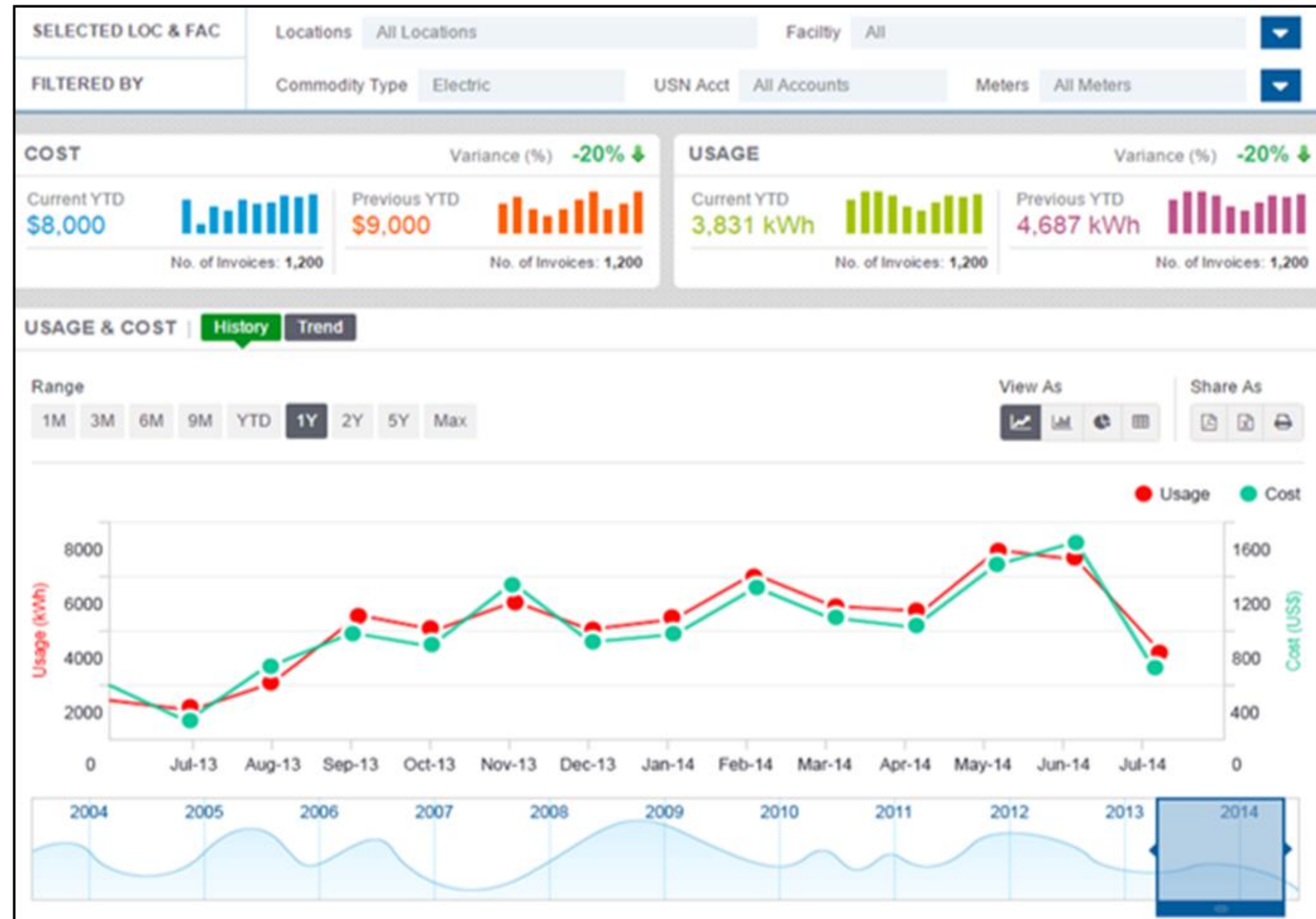
- Who's responsible for collecting and housing data?
- Are you utilizing a platform?
- Are you using excel?

Material Assessment

- Analyze the data
- Identify strategic benchmarks by usage, cost, square-footage, or specific business metrics

Identify a baseline

- Do you have data to support a baseline in a prior year
- Have you completed an efficiency project already?



NORMALIZING DATA

Is a kWh a kWh?

- The fuel mix needs to be considered for the generation of your electricity (Coal, NG, Nuclear, Solar, Biomass, etc).

What is an Emission Factor

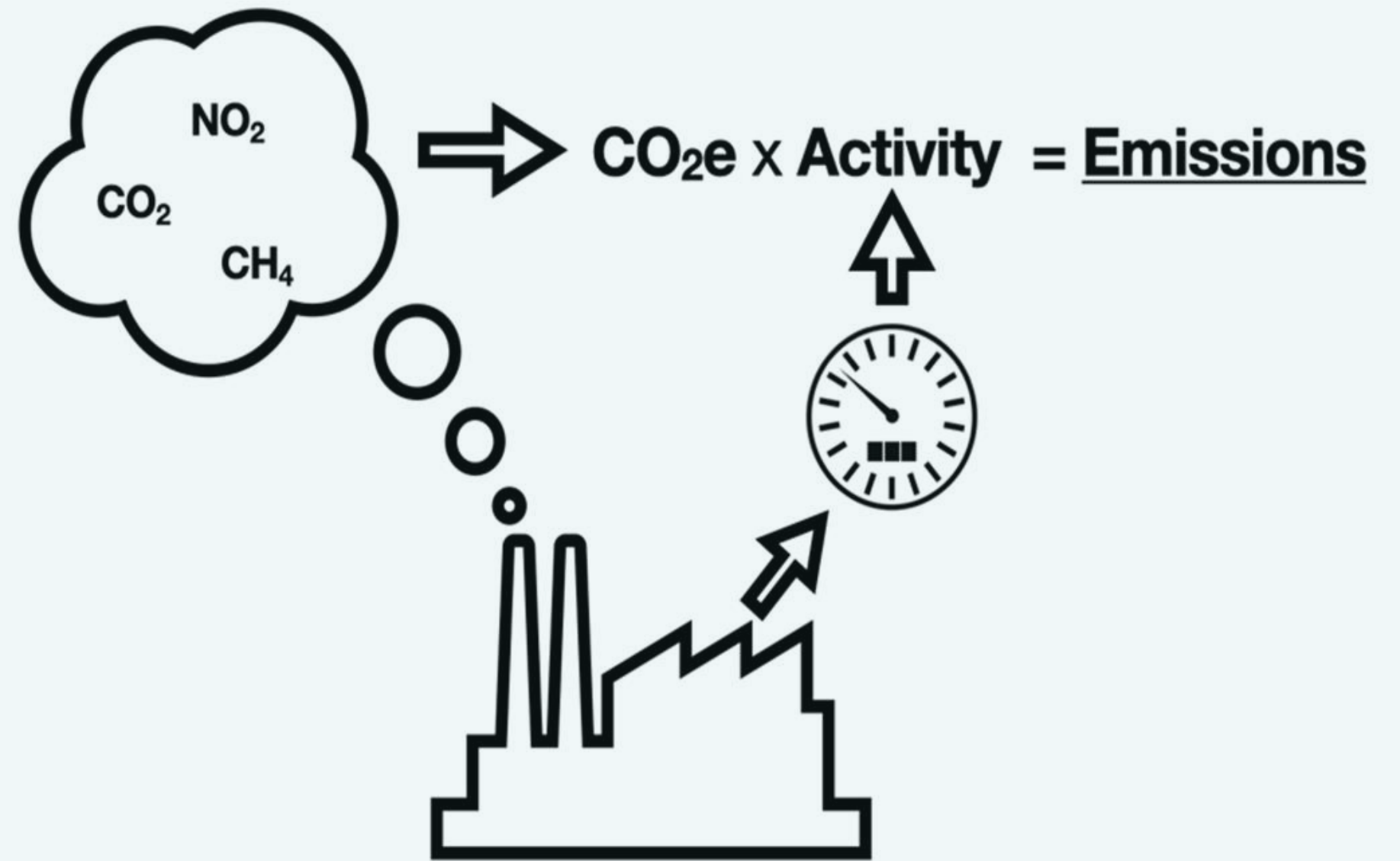
- An emission factor (EF) is a coefficient that describes the rate at which a given activity releases greenhouse gases (GHGs) into the atmosphere.
- GHG emissions are often measured in CO₂e (CO₂ equivalents) expressed in weight, normally kg (kilograms) or t (ton/metric ton).

eGRID (Emissions & Generation Resource Integrated Database):

- A comprehensive source of data from EPA's Clean Energy Division on the environmental characteristics of almost all electric power generated in the States.

Normalizing data can also draw from weather to bring more accuracy to the data sets

- Was there an anomaly in heat or cold



PLAN

Set goals and develop action plan

- What is driving the project?
- What is your time frame?
- What resources do we have?
- What did you learn from gathering/analyzing the data?

Engage with your team

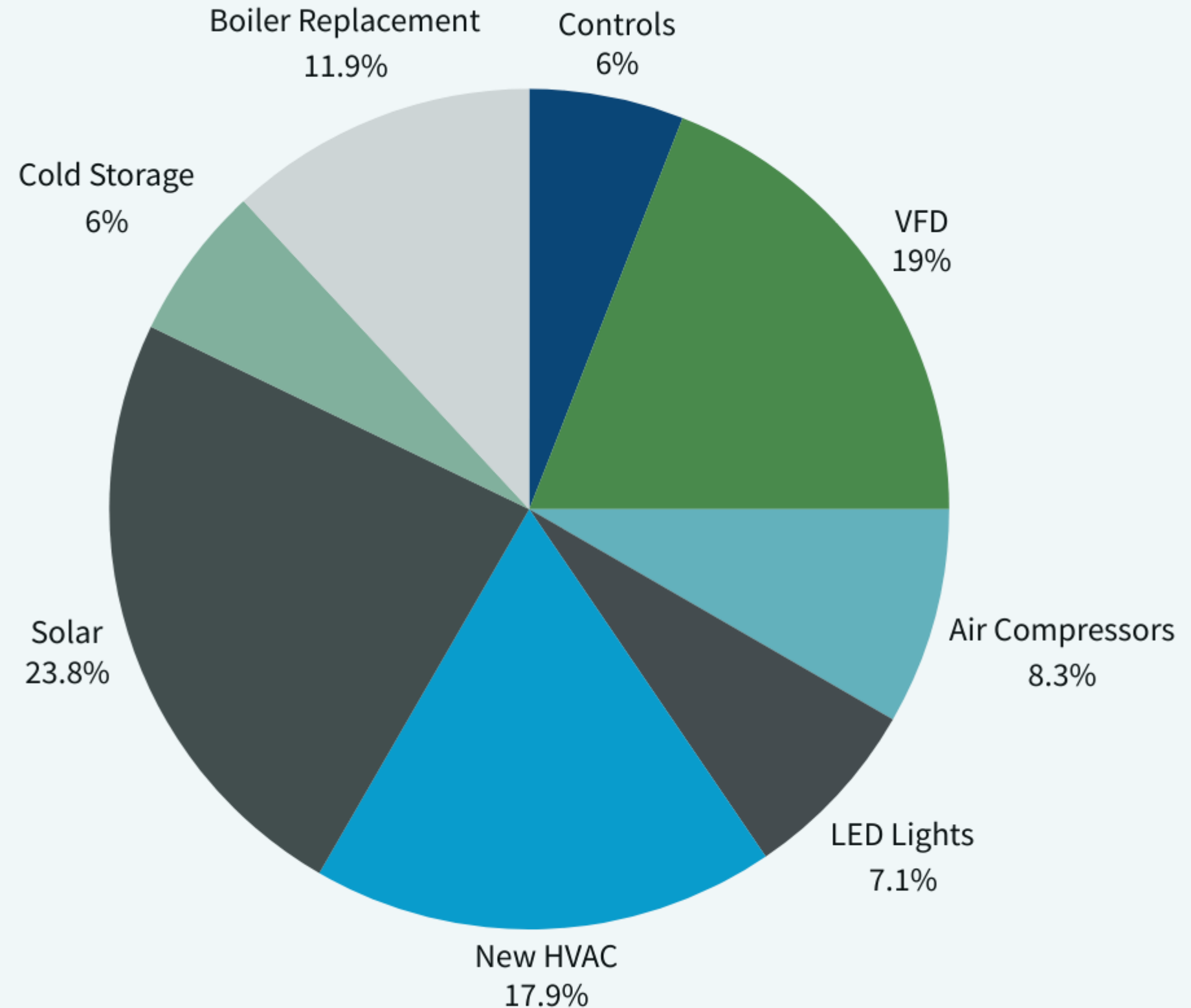
- Facilities team
- Energy/environmental team
- C Suite
- Capital and finance teams

It likely won't be a single solution approach

- Building retrofits, efficiency and optimization
- Renewables on and off site
- Electrification
- Short and long-term planning

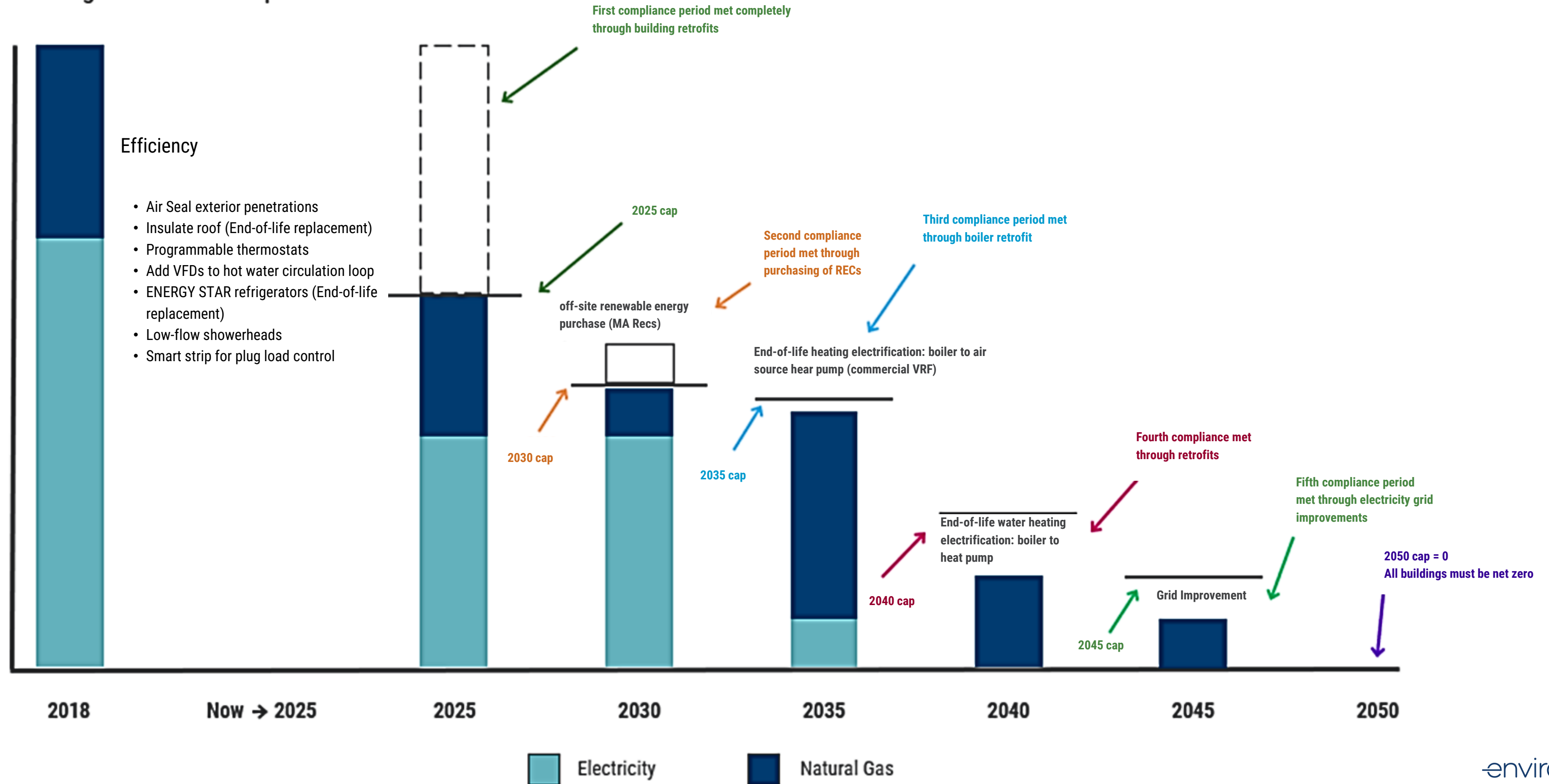
How will it impact your business?

- Operationally
- Financially
- Marketability
- Employee engagement/satisfaction



LONG TERM PLANNING

Building X's Path to Compliance



UNDERSTAND YOUR ENERGY COST

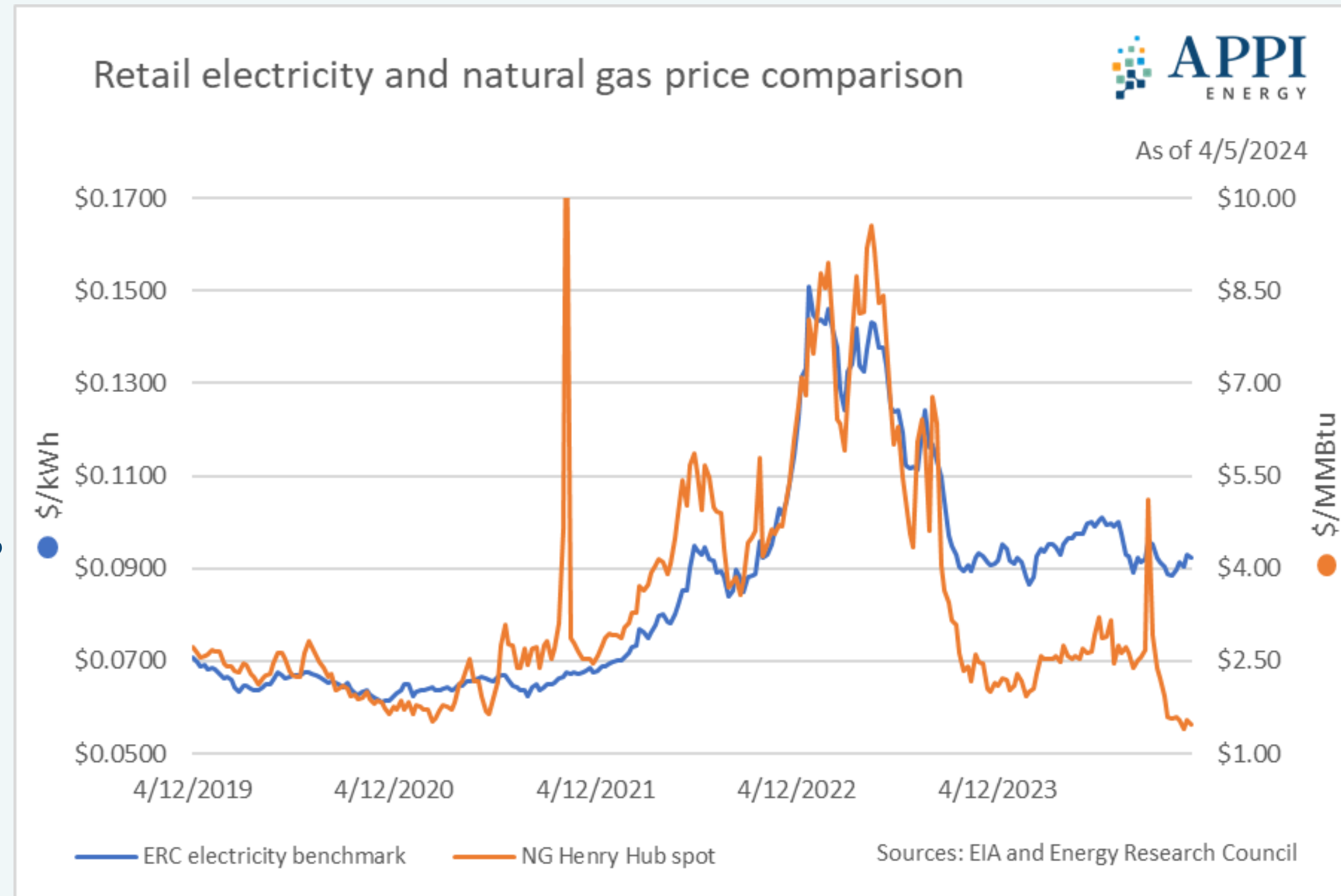
KW and a kWh, what's the difference?

- How to impact demand based charges (KW).
- How to impact volume based charges (kWh).

When updating or electrifying equipment and evaluating forward financial models:

- What will be your future cost per kWh or Dth? Are your numbers accurate?
- Can you control the cost?
- Are there electric or natural gas power contracts in place?

43% of our electric power generation comes from natural gas, therefore it is a lead indicator to electric power pricing.



TOOLS FOR EXECUTION: REAP

The USDA Rural Energy for America Program (REAP) offers guaranteed loan financing and grant funding to agricultural producers, rural small for-profit businesses and co-ops for renewable energy systems or to make energy efficiency improvement projects.

- Grant awards range: \$1,500 to \$500,000 for Energy Efficiency Improvement projects, and \$2,500 to \$1,000,000 for Renewable Energy System projects.
- Loan guarantees on loans up to 75 percent of total eligible project costs.
- Grants for up to 50 percent of total eligible project costs.
- Combined grant and loan guarantee funding up to 75% of total eligible project costs.

ELIGIBLE PROJECTS

Renewable Energy Systems

- Solar & Wind Generation
- Biomass
- Biodiesel and Ethanol
- Anaerobic Digesters
- Solid Fuels
- Geothermal
- Hydropower (below 30 megawatts)
- Hydrogen
- Ocean (tidal, current, thermal) generation

Energy Efficiency Improvements

- High Efficiency HVAC Systems (heating, ventilation and air conditioning)
- Insulation
- LED Lighting
- Cooling or refrigeration units
- Doors and windows
- Smart Thermostats and other energy management systems
- Electric, solar or gravity pumps for sprinkler pivots
- Switching from a diesel to electric irrigation motor
- Replacement of energy-inefficient equipment

UPCOMING FUNDING CYCLES FOR GRANTS:

JUNE 30, 2024

SEPTEMBER 30, 2024

TOOLS FOR EXECUTION: ON-BILL FUNDING

On-bill funding provides an opportunity for funding when there is:

- Lack of CapEx spend for projects & initiatives
- Not enough funds budgeted
- No upfront capitol available

As a result, your organization can:

- Eschew upfront capitol
- Enjoy flexible contract terms (36-60 months)
- Pay for energy conservation measures through monthly charges that appear on your bill
- Realize cost savings through a reduction in consumption and an improved load profile
- implement projects sooner



Energy Infrastructure:

- Utility Power Upgrades
- Prime & Backup Power
- Solar
- Combined Heat & Power (CHP)

Modernizing Old Equipment:

- Lighting
- HVAC
- Boilers
- VFD Motors
- Controls

QUESTIONS?



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