

# THE HEALTHCARE SYSTEM'S NEW IMPERATIVE:

MARKET DEMANDS FOR CLIMATE RISKS AND  
EMISSIONS MANAGEMENT



# CPE and MCLE Credits

- Responses to polling questions will be utilized to verify attendance
- You must respond to all 4 polling questions to be eligible for credits
  - One question to indicate what credits you are requesting
  - 3 additional questions
- **FOR MCLE ONLY**
  - An attendance sheet will be sent to you via email, please include code **HYWK7549**



A hand holding a compass over a desert landscape with a winding road. The hand is wearing a green long-sleeved shirt. The compass is a standard analog compass with a white face and black markings. The background shows a desert landscape with a winding road and a body of water in the distance.

# Question 1

Working with  
healthcare systems to  
reduce emissions in  
ways that have a  
measurable ROI







# Roadmap

- Reasons why health systems are working to reduce emissions
- Climate change creates new financial risks to health systems
- How to achieve rapid emissions reductions



# It is getting hot

The megadrought in the American Southwest has become so severe that it's now the driest two decades in the region in at least 1,200 years

Lake Powell: Powers the Glen Canyon Dam Generation Station



July 2022

Lake Mead: Powers the Hoover Dam Generation Station



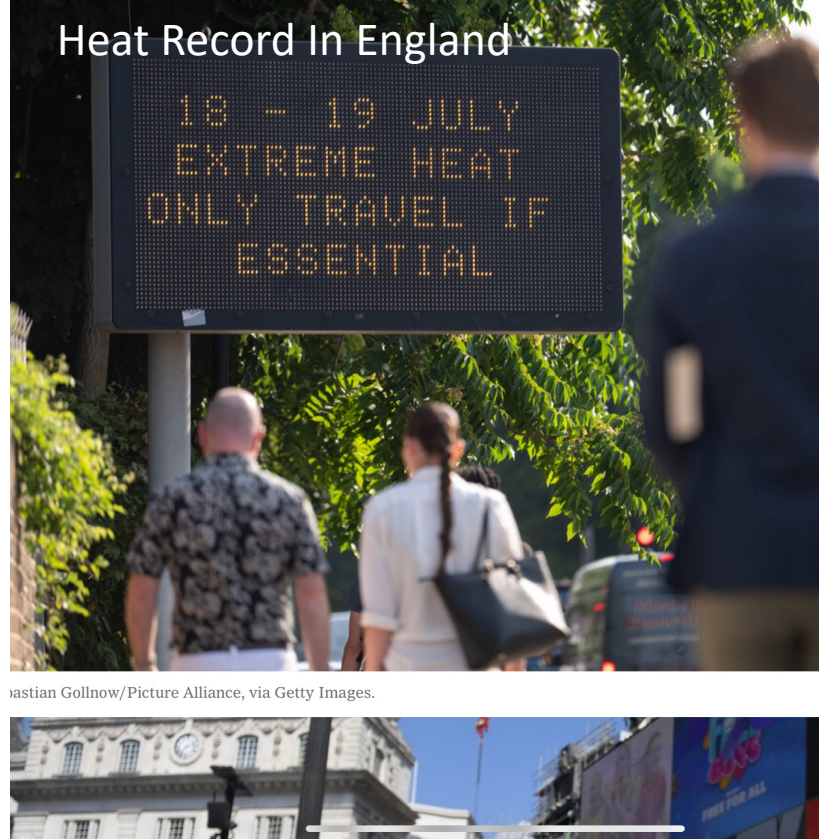
July 2022



Dead Cattle in Kansas



Heat Record In England



astian Gollnow/Picture Alliance, via Getty Images.

Fires In New Mexico



## Climate Change is a Health Problem Today

- Climate change is aiding the spread of pathogens including Lyme disease and malaria.
- One of the more regionally specific illnesses is Valley Fever or coccidioidomycosis, a deadly fungal infection contracted by inhaling spores from soil and dirt.
- Drought in the southwest has increase the number of diagnoses 800% since 2000.



# Burning Fossil Fuels Has Created A Health Crisis

- Premature death in people with heart or lung disease
- Nonfatal heart attacks
- Irregular heartbeat
- Aggravated asthma
- Decreased lung function
- Increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.

Getting oil out of the ground produces three barrels of toxic wastewater for every barrel of oil.

- 98.6 percent of children living in an oil production zone exceeded the safe limits for the cancer-causing heavy metal cadmium in their blood.

Particulate emissions kill 9 million people worldwide each year.

- 350,000 Americans





# Health System Mission

To improve the health of  
the community



## Mission:

### Who We Are

Bassett's mission is improving the health of our patients and the well-being of our communities.

# HHS Climate Pledge:


## Reduce greenhouse gas emissions by 50% by 2030

- Providence Health
- HealthPartners
- Kedren Health
- Common Spirit
- University Medical Center of El Paso
- NYC Health and Hospitals
- Boston Medical Center
- Baystate Health
- Stanford Children's Health
- Stanford Health Care
- Atrium Health
- Cherokee Health Systems
- University of California Health
- Northwell Health
- Rush University System for Health
- Northern Arizona Healthcare
- Hackensack Meridian Health
- UW Medicine
- RWJ Barnabas Health
- Sun River Health
- NYU Langone Health
- Ascension
- Henry Ford Health
- Mass General Brigham
- Boston Children's Hospital
- Tufts Medicine
- Southcoast Health
- Children's National Hospital
- Mount Sinai Health System
- Kaiser Permanente
- Keck Medicine of USC
- Beth Israel Deaconess Medical Center
- DaVita
- Montefiore
- Seattle Children's
- Valley Children's Healthcare
- University of Nebraska Medical Center and Nebraska Medicine
- Advocate Aurora Health
- Gillette Children's
- University of Utah Health
- Steward Health Care System



# No Margin, No Mission

## 9 Reasons Why Health Systems Need to Work on Climate Change Now

 Health systems contribute about **10%** of the greenhouse gas emissions of the United States.


  
**REASON ONE:  
To Improve the Health of the Community**  
Emissions particulates lead to over **100,000 deaths** annually

  
**REASON TWO:  
Because Sustainability Can Lower Costs**  
Embracing efficiency and shifting to renewable energy sources lead to savings


  
**REASON THREE:  
To Maintain and Improve Access to Capital**  
S&P and Moodys plan to move to include environmental performance metrics in their analyses

  
**REASON FOUR:  
To Enhance Employee Recruitment and Retention**  
84% of Millennials look at a firm's sustainability commitments when deciding where to work

  
**REASON FIVE:  
To Protect Your Brand and Grow Your Market Share**  
4 out of 5 consumers

  
**REASON SIX:  
Because Eliminating Health System Emissions Will Be Challenging**

  
**REASON SEVEN:  
To Improve Social Equity and Tackle Social Determinants of Disease**

  
**REASON EIGHT:  
Because Health Systems Are Community Leaders**  
Health systems are often

  
**REASON NINE:  
To Leave a Healthy Climate for Our Children and Grandchildren**





# Roadmap

- Reasons why health systems are working to reduce emissions
- Climate change creates new financial risks to health systems
- How to achieve rapid emissions reductions





# Financial Magic Sauce of Health Systems: Arbitrage

- Operating Income
- Investment Income
- Cash
- Bonds

# ESG Investing

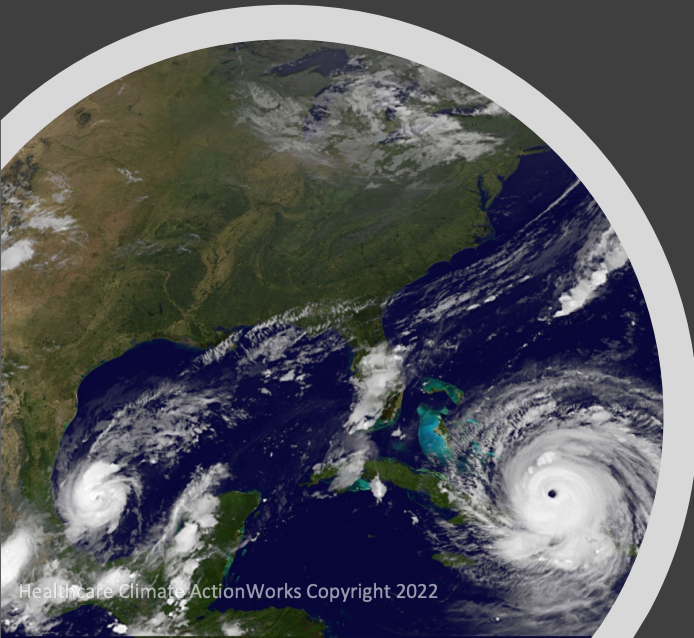
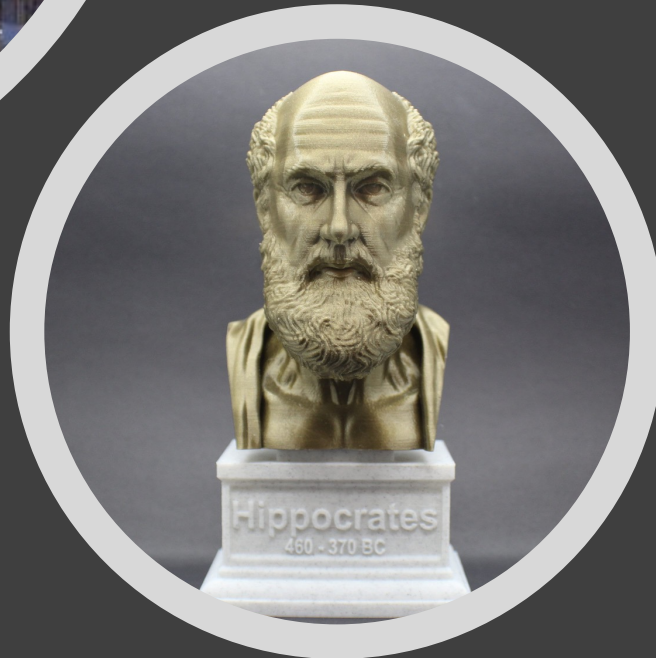
- In 2021 More money flowed into ESG than into any other type of investment
- Two largest holders of bond debt – Blackrock and CALpers – have made large bets on ESG
- A record \$649 billion poured into ESG-focused funds worldwide through Nov. 30, 2021, up from the \$542 billion and \$285 billion that flowed into these funds in 2020 and 2019, respectively (Refinitiv Lipper)
- ESG funds now account for 10% of worldwide fund assets.

Environmental	Social	Governance
<ul style="list-style-type: none"><li>• Carbon emissions.</li><li>• Air and water pollution.</li><li>• Deforestation.</li><li>• Green energy initiatives.</li><li>• Waste management.</li><li>• Water usage.</li></ul>	<ul style="list-style-type: none"><li>• Employee gender and diversity.</li><li>• Data security.</li><li>• Customer satisfaction.</li><li>• Company sexual harassment policies.</li><li>• Human rights at home and abroad.</li><li>• Fair labor practices.</li></ul>	<ul style="list-style-type: none"><li>• Diversity of board members.</li><li>• Political contributions.</li><li>• Executive pay.</li><li>• Large-scale lawsuits.</li><li>• Internal corruption.</li><li>• Lobbying.</li></ul>



# Bond Investors see a trilogy of risks for the health system

- Hippocratic Risk
- Climate Risk
- Transition Risk



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# Question 2



Nancy Kummer on ESG  
Marc Bauer on SEC

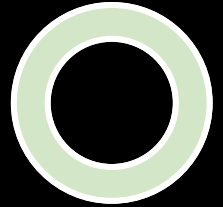
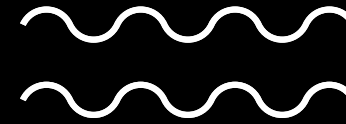


# ESG Program for Healthcare Borrowers

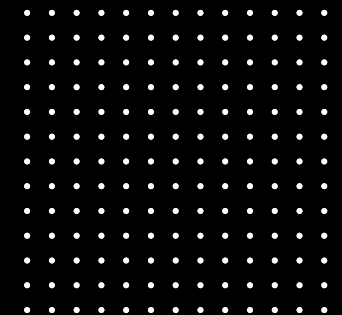
- 1- Education**
- 2- Greenhouse Gas Emissions Reporting**
- 3- Climate and Social Risks Assessment**
- 4- Program and Policy Development**  
**[Voluntary Disclosure / Transparency]**
- 5- Social, Green or Sustainability Bond Designations**



# Leading Bond Designation Frameworks



- **ICMA’s “Green” and “Social” Bond Principles:** Second Party Opinions (SPOs) are prepared pursuant to the International Capital Market Association (ICMA)’s voluntary process guidelines for issuing “Green”, “Social”, or “Sustainable” bonds and address the following four pillars: (1) Use of Proceeds, (2) Process for Project Evaluation and Selection, (3) Management of Proceeds, and (4) Reporting.
- **Climate Bonds Initiative’s Taxonomy:** Verifier’s Reports are prepared by 3<sup>rd</sup> parties approved by the Climate Bonds Initiative (CBI). In addition to meeting the four ICMA pillars, a project must contribute to a low carbon and climate resilient economy pursuant to the Paris Agreement.
- *[Options include programmatic and debt-specific verification.]*



# ICMA “GREEN” BOND CATEGORIES

- **Renewable energy** (including production, transmission, appliances and products)
- **Energy efficiency** (such as in new and refurbished buildings, energy storage, district heating, smart grids, appliances and products)
- **Pollution prevention and control** (including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy)
- **Environmentally sustainable management of living natural resources and land use** (including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes)
- **Terrestrial and aquatic biodiversity conservation** (including the protection of coastal, marine and watershed environments)



# ICMA “GREEN” BOND CATEGORIES (CONT.)

- **Clean transportation** (such as electric, hybrid, public, rail, non-motorized, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions)
- **Sustainable water and wastewater management** (including sustainable infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation)
- **Climate change adaptation** (including efforts to make infrastructure more resilient to impacts of climate change, as well as information support systems, such as climate observation and early warning systems)
- **Eco-efficient and/or circular economy adapted products, production technologies and processes** (such as the design and introduction of reusable, recyclable and refurbished materials, components and products; circular tools and services)
- **Green buildings** (that meet regional, national or internationally recognized standards or certifications for environmental performance)



# ICMA “SOCIAL” BOND CATEGORIES

- **Affordable basic infrastructure** (e.g., clean drinking water, sewers, sanitation, transport, energy)
- **Access to essential services** (e.g., health, education and vocational training, healthcare, financing and financial services)
- **Affordable housing**
- **Employment generation, and programs designed to prevent and/or alleviate unemployment** stemming from socioeconomic crises, including through the potential effect of SME financing and microfinance
- **Food security and sustainable food systems** (e.g., physical, social, and economic access to safe, nutritious, and sufficient food that meets dietary needs and requirements; resilient agricultural practices; reduction of food loss and waste; and improved productivity of small-scale producers)







# ICMA “SOCIAL” BOND CATEGORIES (CONT.)

- **Socioeconomic advancement and empowerment** (e.g., equitable access to and control over assets, services, resources, and opportunities; equitable participation and integration into the market and society, including reduction of income inequality)
- Examples of target populations for “Social” projects:
  - Living below the poverty line
  - Excluded and/or marginalized populations and/or communities
  - Vulnerable youth, Aging populations, and People with disabilities
  - Migrants, displaced persons, other vulnerable groups (e.g., as a result of natural disasters)
  - Unemployed, Undereducated or Underserved (owing to a lack of quality access to essential goods and services)



# SEC Actions



- March 2022 – Proposed Rules on Climate-related disclosures in corporate securities disclosures
  - Disclose climate-related risks that are reasonably likely to have a material impact on issuer/borrower business, results of operations, or financial condition
  - Add climate-related financial statement metrics in a note to the financial statements
- May 2022 – Proposed amendments to the "Names Rule"
  - Ensure that funds that use ESG terms (i.e. sustainable, green, or social) have investment decisions that truly align with ESG
- The SEC's ESG Rules **DO NOT** apply to municipal or nonprofit bond issuers or borrowers



# What does this mean for Health Care Borrowers

- Rule 10b-5 always applies
  - It is unlawful "to make any untrue statement of a *material* fact or to omit to state a *material* fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading"
  - "*Material*" is based on what would be material to the investment decision of a reasonable investor, not to the issuer
- Think about what a reasonable investor in your health system's 30-year bonds would want to know with respect to managing risks related to climate change
  - With rising energy costs, how are you mitigating this rising expense?
  - Western US – do you have a satisfactory wildfire contingency plan?
  - Eastern US – do you have plans in the event of stronger hurricanes and flooding?



# What does this mean for Health Care Borrowers

- Bond purchasers will be subject to the "Names Rule"
  - Bond purchaser will do more to ensure that the securities purchased for their ESG funds truly align with their ESG funds' investment criteria
  - That means borrowers need to ensure that they are meeting the criteria discussed earlier if they are going to label bonds "Green," "Social," or "Sustainable"





# Practical Implications

- No need to reinvent the wheel
  - Can keep securities disclosure consistent with what you are already providing to stakeholders
  - Use information in your Community Benefit plans
  - Use information from Environmental Stewardships discussions on your website
  - If you already have materials that describe your response to climate change factors, use it
- Remember – these communications are subject to Rule 10b-5 and the material facts in such statements need to be accurate and not misleading



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# Question 3





# Roadmap

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- Climate change creates new financial risks to health systems
- How to achieve rapid emissions reductions

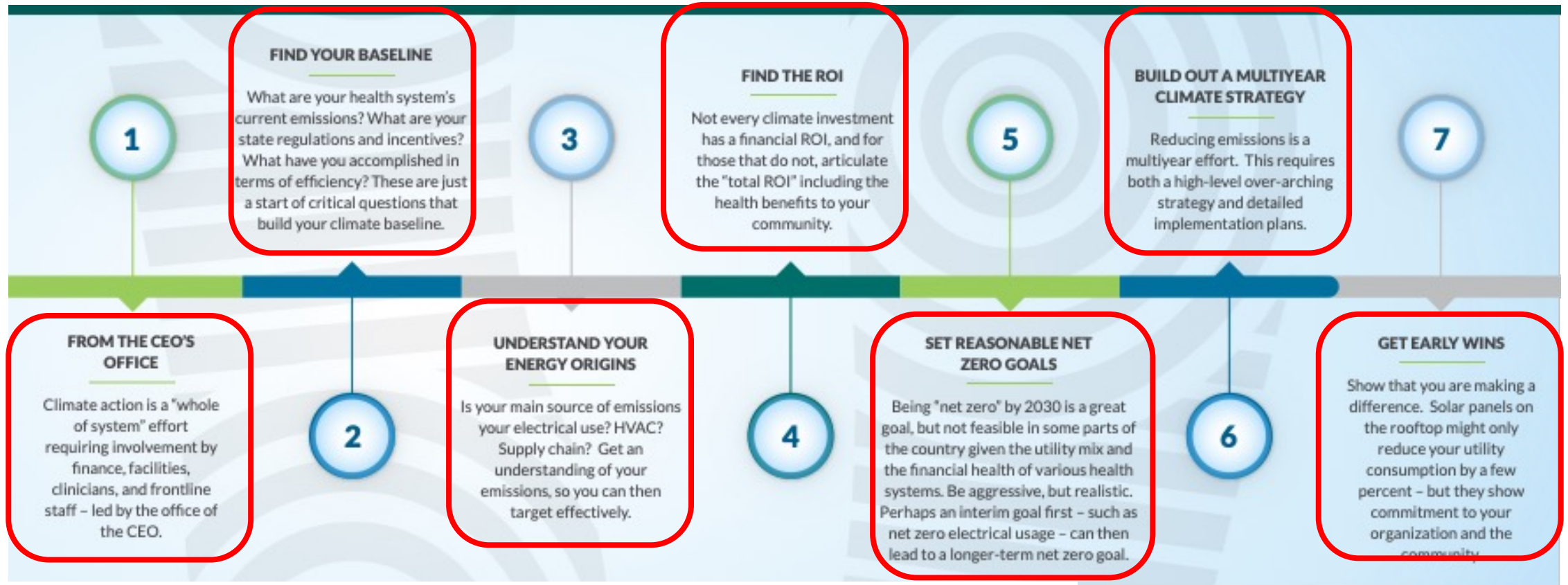
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## Reduce greenhouse gas emissions by 50% by 2030

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- Kedren Health
- Common Spirit
- University Medical Center of El Paso
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- Boston Medical Center
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- University of California Health
- Northwell Health
- Rush University System for Health
- Northern Arizona Healthcare
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# How Health Systems Start



Scope 1



Scope 2



Scope 3



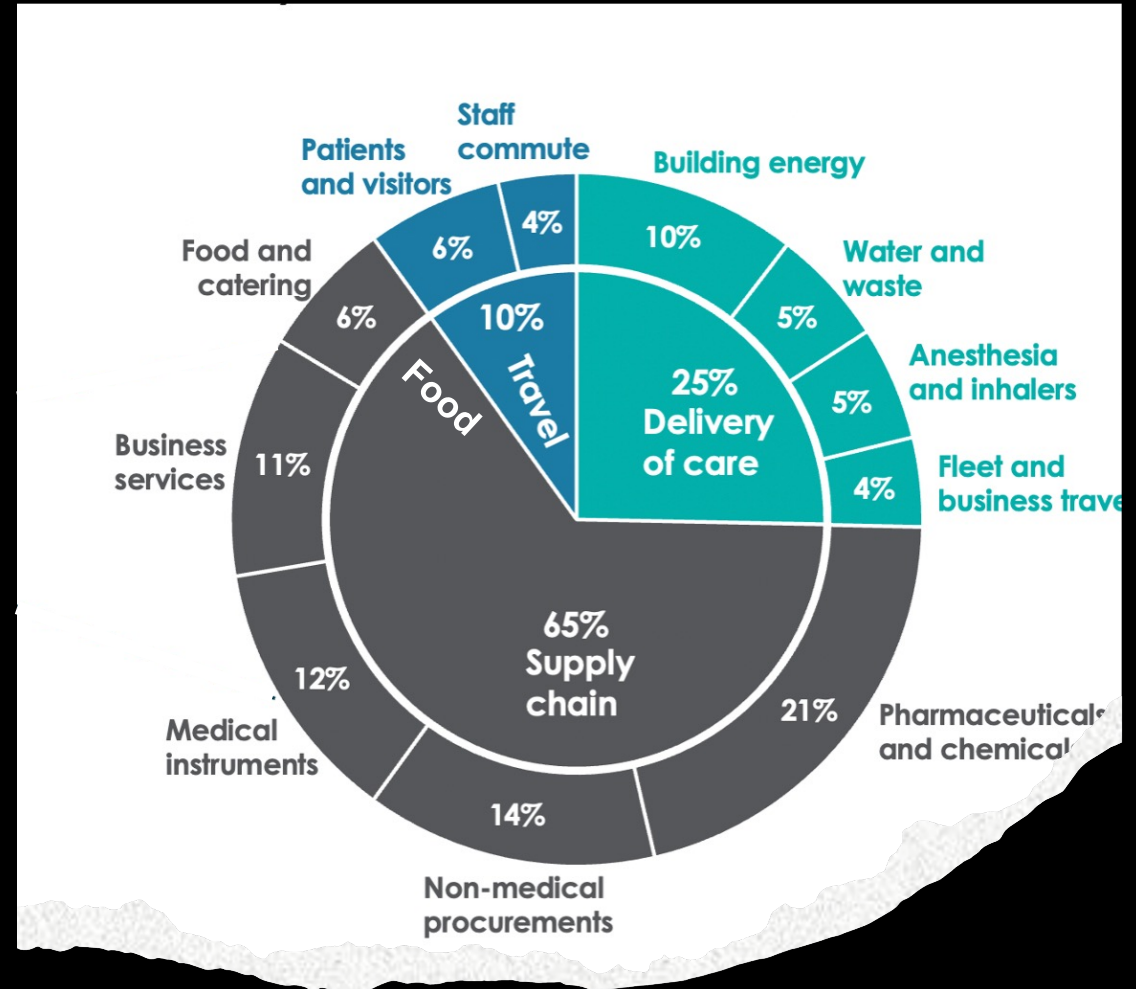
# What Makes Up Your GHG Footprint

Scopes of Emissions

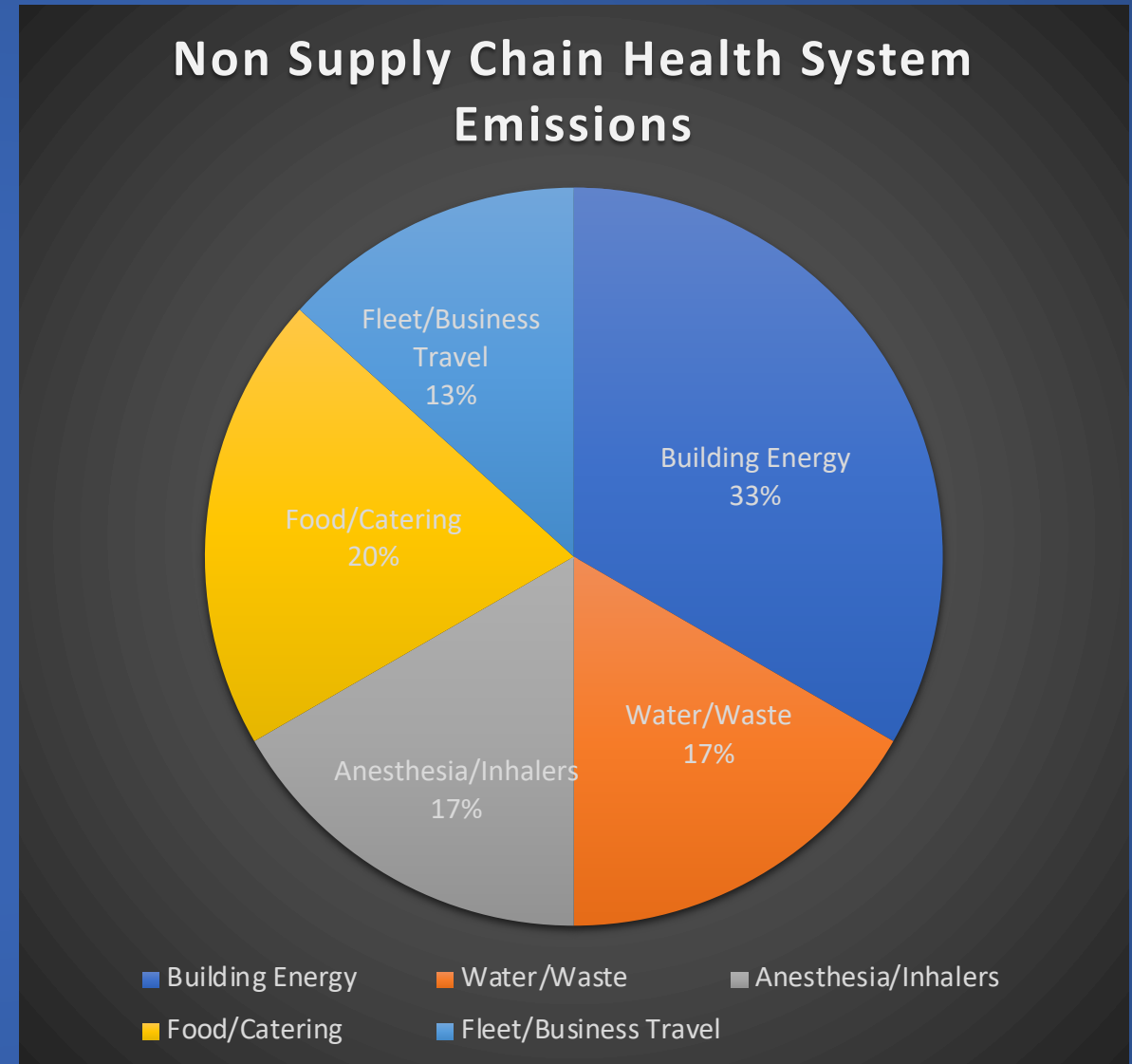


# US Health System Emissions

(admittedly academic)

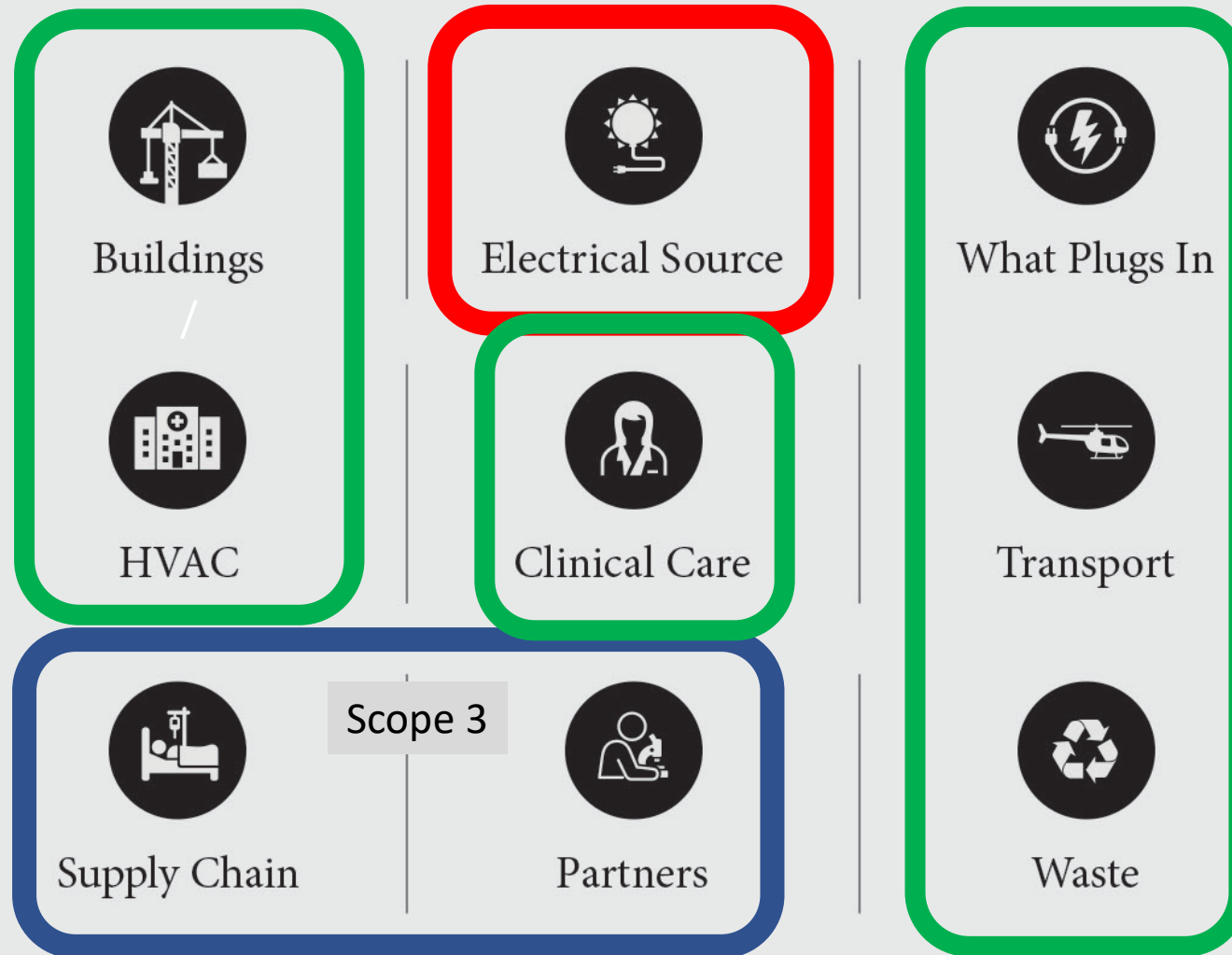


# Inside the Health System: Scope 1 and 2





## 9 Areas of Focus for a Net Zero Plan

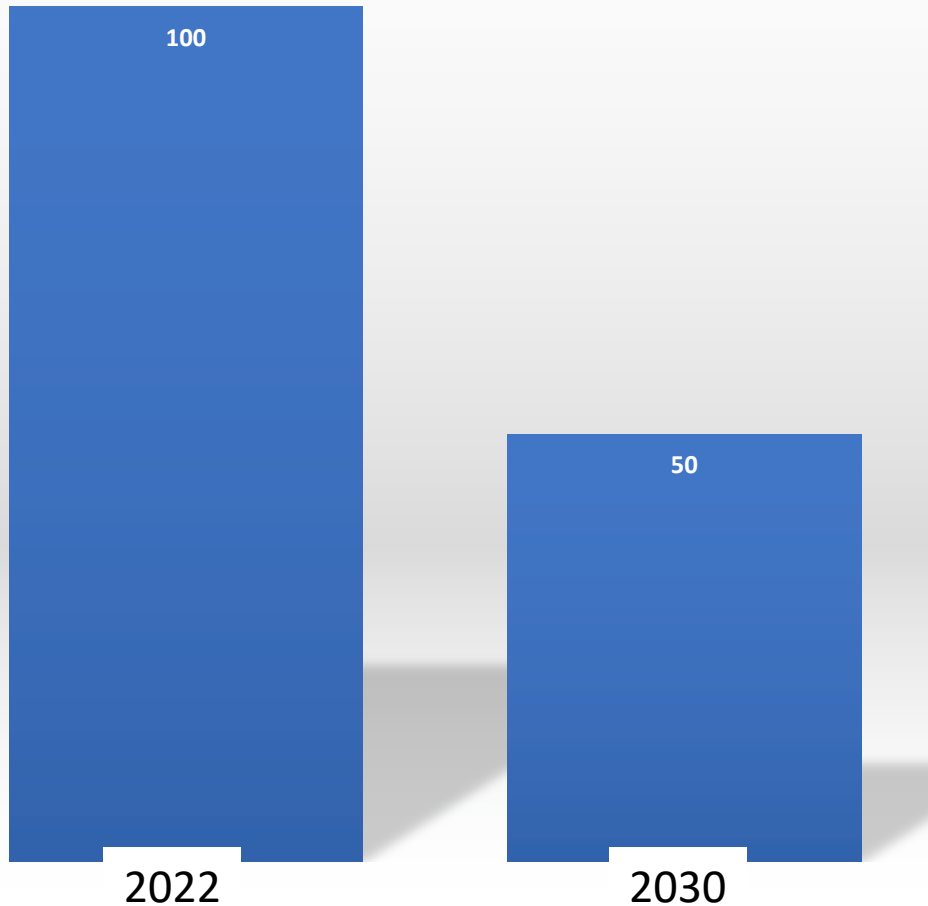


Scope 1:  
“A thousand projects”

Scope 2:  
Flipping a Switch

Scope 3:  
“A thousand contracts”

## Achieving 50% Reductions



## Achieving 50% Reductions in Emissions by 2030

- McKinnon Health System
- Scope 1: 15% of Emissions
- Scope 2: 10% of Emissions
- Scope 3: 75% of Emissions

Scope 1:  
“A thousand projects”

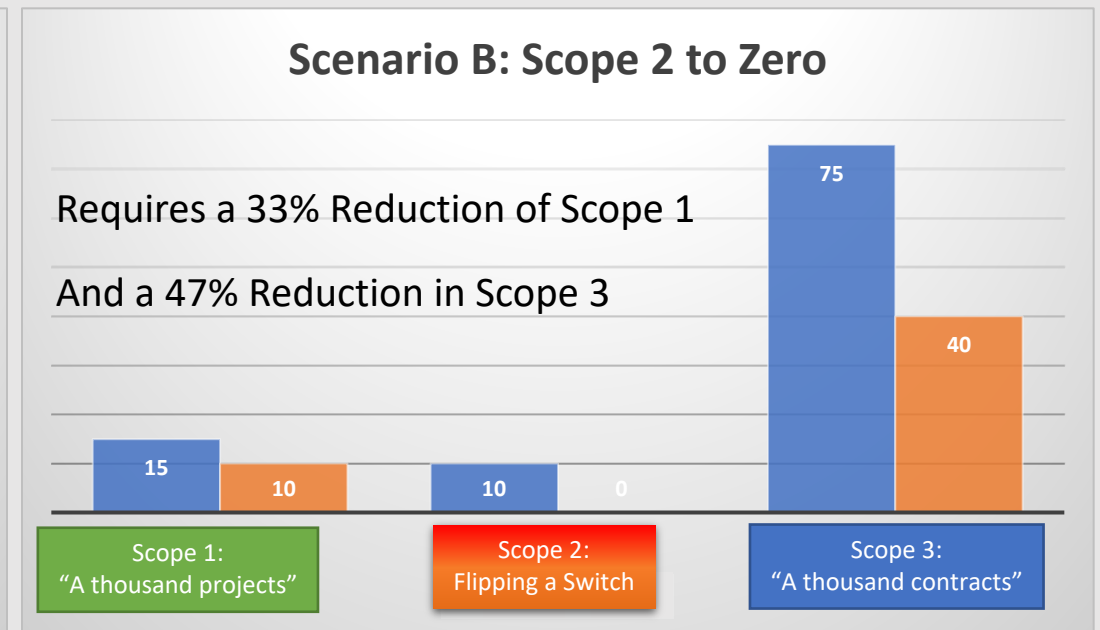
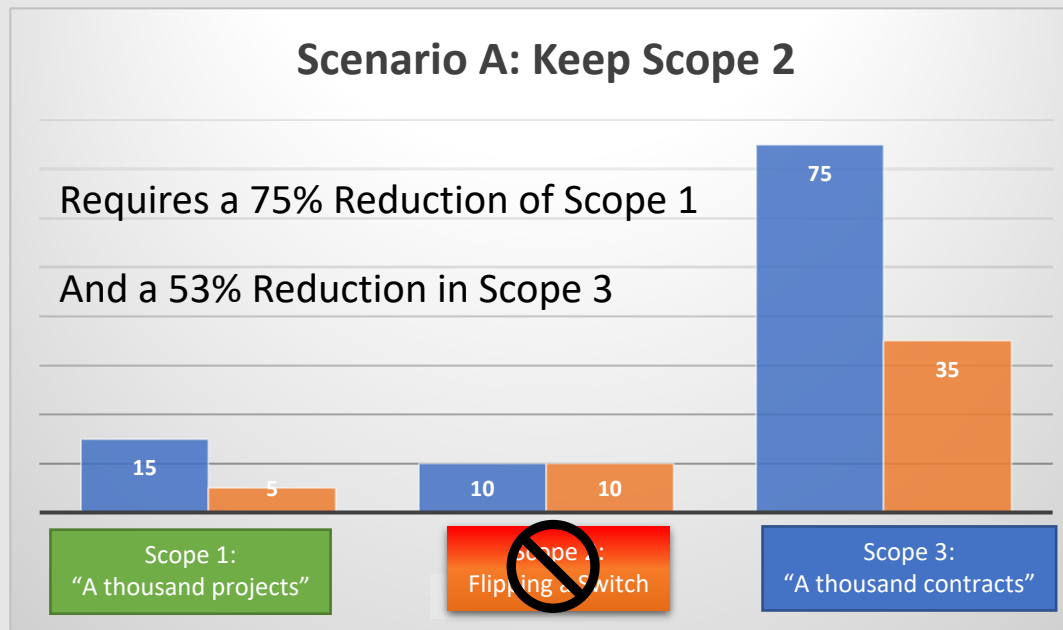
Scope 2:  
Flipping a Switch

Scope 3:  
“A thousand contracts”



# Where do we reduce emissions?

Does anyone believe you can get to a 50% reduction in emissions in 7 years without eliminating scope 2?



Emissions in 2022

Emissions in 2030

# Eliminating Scope 2 Emissions



Power Purchase Agreements (PPAs)

Renewable Energy Certificates (RECs)

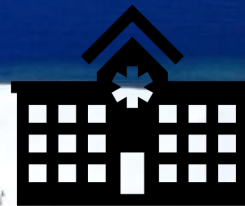


# The Electrical Grid is Like a Lake of Electrons



*I don't understand how health systems are going to get a 50% admissions reduction by 2030 without doing a PPA.*

Bob Biggio  
SVP Facilities, Boston Medical Center  
Used a PPA to build a solar farm in North Carolina







*Bringing scaled renewable energy solutions to America's health systems*





# Partnership with NEXtera Energy

Health System  
Diagnostic and  
Recommendation

## Scope 1 Emissions Accounting

Gas, Diesel, Gasoline Accounting  
Anesthesia/Inhaler Accounting  
Food/Water/Waste Assessment

## Scope 2 Emissions Accounting

Meter by Meter Evaluation  
Emissions Determination  
Renewable Electrical Need

## Health System Readiness Assessment

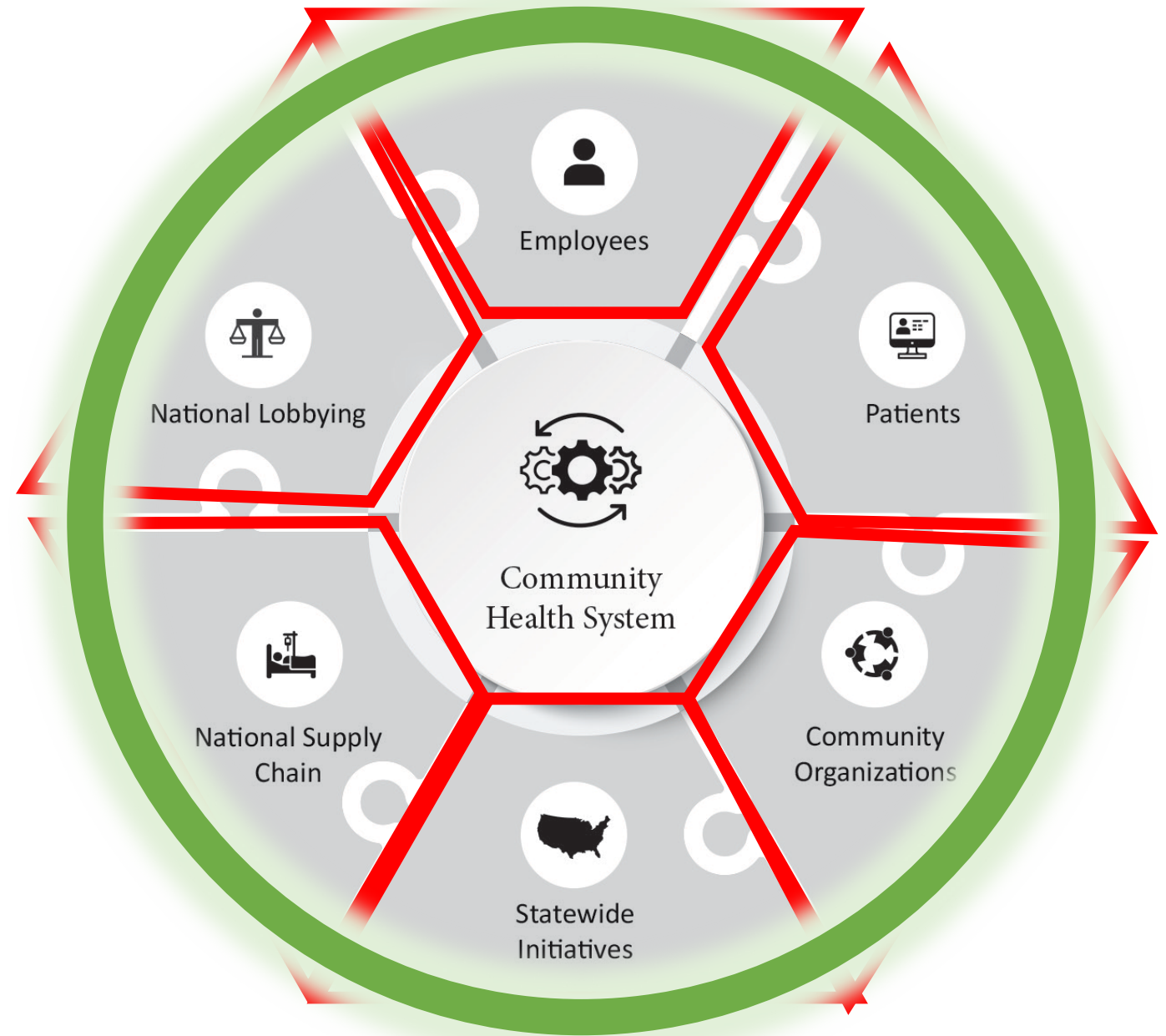
Board/Executive Readiness  
System Culture  
State(s) incentives  
Grid capabilities

## Recommended Approach

Appropriate path to Scope 2 renewables  
Virtual PPA, RECs, Battery Generators, Campus Management



# The Health System as Community Leader on Climate Action





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# Question 4

