



Tiers of Decarbonization Framework

Decarbonization Policies, Plans and Progress – NECPUC Annual Symposium – May 23, 2022

Accelerating Transformation

Regulatory and Business Innovation | Grid Integration | Electrification

Who You Are, What You Want and Where You Sit . . . Influence What You Can Do



Actors



Objective



Context



Actions

<https://sepapower.org/resource/tiers-of-electricity-decarbonization/>



Using the Framework to Identify Actions & Tiers

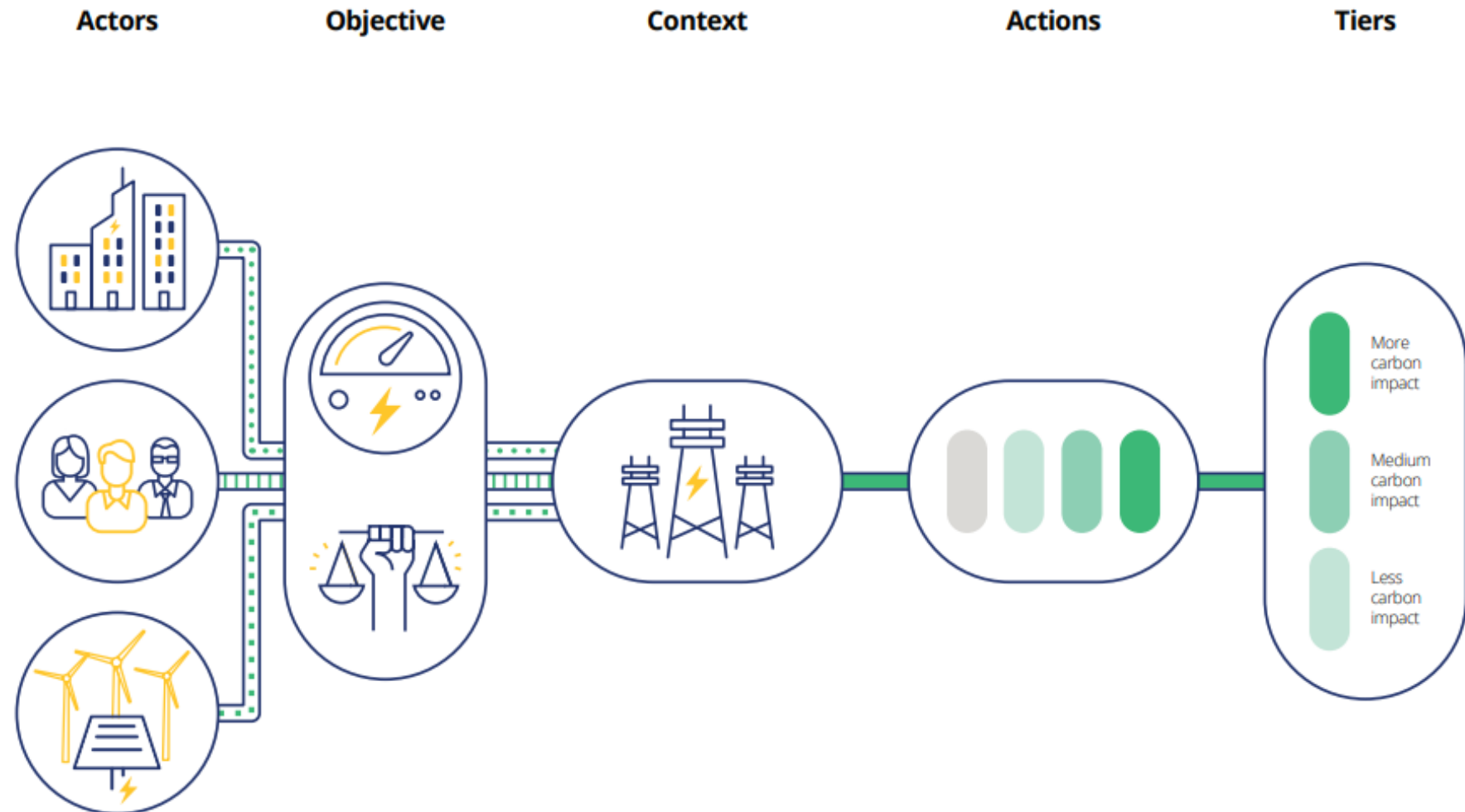
Step 1: Identify an entity's actor type(s)

Step 2: List their mission-critical objectives

Step 3: Identify their relevant context

Step 4: List all potential decarbonization actions and strategies, and identify their availability and relative carbon impacts

Step 5: Conduct further research and analysis focusing on actions with potentially high relative carbon impacts



Tools to Help Identify Impact



- Basic Definitions
- List of Common Actions with Estimated Ease and Carbon Reduction Impact
- Worksheet to Walk through the Dimensions

Appendix A: Definitions			
Term	Type of Emissions	Definition	Example(s)
Abatement	CO ₂ or GHG emissions	Avoid or reduce emissions inside the acting entity's value chain. ²⁰	An entity commits to burning natural gas instead of coal for energy generation.
Absolute Zero Emissions	CO ₂ or GHG emissions	No emissions are attributable to activities such as generation. Under this definition, no offsets or balancing of residual emissions with removals are used. ²¹	An entity commits to having no emissions by a certain date.

Step #4: Complete the following table based on information

List of All Potential Decarbonization Actions & Strategies
Review the pre-populated actions and strategies below and add others identified through further research and analysis.
List only one action/strategy per

Action Available to Your Act

Appendix B: Using the Framework

Worksheet to Identify and Tier Potential Carbon Reduction Actions (5 Steps)

The following worksheet walks an entity through identifying and tiering potential carbon reduction actions. The worksheet is followed by two illustrative examples of applying the framework.

Step #1: Determine which actor type(s) describe you/your entity (select all that apply):

- Entities that own electricity generation assets, including vertically integrated utilities and competitive generators
- Load-serving entities, including utilities, electric service providers, energy service companies (ESCOs), and community choice aggregators (CCAs)

- Electric transmission and distribution utilities that are not vertically integrated
- Energy users
- Grid operators that control resource dispatch and/or transmission infrastructure, e.g., Regional Transmission Organizations (RTOs) Independent System Operators (ISO)

Step #2: List your/your entity's mission-critical objectives including your decarbonization objective(s). (Note: the list order is not important):

Statement of Objective
(What is the desired outcome?)

Objective's Time-scale
(What is the timeline for achieving the desired outcome?)

Geographic Bounds of the Objective
(What is the geographic area for your desired objective?)

Choosing Carbon Reduction Actions



WHITE PAPER

Tiers of Electricity Decarbonization

A framework for identifying carbon reduction actions with the greatest impact.



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