# Carbon Pricing Basics

**Evangelical Lutheran Church in America** God's work. Our hands.

**Many of us are concerned about greenhouse gas (GHG) emissions.** Alarm bells sound as we witness environmental degradation at a distressing pace. Scientists around the world<sup>1</sup> and in the United States<sup>2</sup> confirm that GHG emissions, primarily due to human activity, are causing global warming.

As a result, we all experience more frequent, severe and intensified weather patterns and temperature extremes. These extreme weather patterns cause floods, droughts, wildfires and rising sea levels that are degrading the Earth. All of this is negatively impacting Earth's inhabitants at unprecedented rates. Around the globe we are seeing forced migration, rising poverty, national security concerns, negative impacts on agriculture that result in food insecurity and threats to ecosystems that could extinguish some species.<sup>3</sup> The deterioration of our environment impacts the entire world, but it disproportionately affects the most vulnerable, who have contributed to the problem the least yet are ill-equipped to implement the remedies needed to create resilient communities and societies.

As Lutherans, we can face these realities boldly. "With the assurance of God's presence in all things and a force of love behind all things, we are freed to see the world as it is without seeking to romanticize it or be blind to the evil and tragedy in life," reads the ELCA study "Why Lutherans Care for Creation." "We also welcome all that we can learn about our world through our strong reception of science, with openness to ecological realities and biological evolution. Science is so fundamental to understanding the environmental crisis and so significant as part of our human efforts to address it. We do not fear the truth about ourselves and our world. Indeed, it is part of God's relation to the world."<sup>4</sup>

The South-Central Synod of Wisconsin has been looking at the potential for carbon fees and dividends to reduce emission of GHGs and promote a sustainable, flourishing planet. Carbon fees and dividends appear to be one of several possible policy tools to mitigate the impact of climate change, but implementing any such policy tools presents many challenges. The 2019 ELCA Churchwide Assembly adopted the memorial "Carbon Fee (and Dividend)"<sup>5</sup> and reaffirmed this church's commitment to advocacy that seeks a sufficient, sustainable livelihood for all. The following background is provided to assist ELCA members, congregations and others as they consider potential advocacy strategy; it explains what carbon pricing is, the implications of carbon tax design, dividend possibilities and principles for evaluation.

## **Understanding carbon pricing**

Reducing GHG emissions into the atmosphere requires multiple approaches. Emissions performance standards and other GHG mitigation technologies are moving forward, but carbon pricing is generally thought to have the greatest potential for near-term impact.<sup>6</sup> However, methods of implementation have differing potential impacts and consequences.



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The World Bank defines carbon pricing as:

an instrument that captures the external costs of greenhouse gas (GHG) emissions—the costs of emissions that the public pays for, such as damage to crops, health care costs from heat waves and droughts, and loss of property from flooding and sea level rise—and ties them to their sources through a price, usually in the form of a price on the carbon dioxide (CO2) emitted. A price on carbon helps shift the burden for the damage from GHG emissions back to those who are responsible for it and who can avoid it.<sup>7</sup>

The most familiar types of carbon pricing are the emissions trading system (ETS) and the system of attaching a fee or charge to emissions (typically referred to as a "carbon tax"). With an ETS, emissions targets are set typically by a regulating governmental agency. Those entities subject to the agency's jurisdiction must meet the emissions targets. Compliance with the emissions targets is accomplished via internal control, abatement measures and/or the acquisition of emissions units or credits in the carbon market, creating a supply-and-demand system for emissions units. An ETS establishes a market

price for GHG emissions. A carbon tax, by contrast, directly sets a price on carbon by defining an explicit tax rate on GHG emissions or, more commonly, on the carbon content of fossil fuels. The measure that allows comparison of emissions of various greenhouse gases is the price per ton of carbon dioxide equivalent (tCO2e),<sup>8</sup> which is calculated relative to one unit of CO2 by multiplying the greenhouse gas's emissions by its 100-year global warming potential.

Unlike with an ETS, the emissions-reduction outcome of a carbon tax is not predefined. The carbon tax determines a carbon price, which can raise the price of energy and generate revenue or dividends that can be used in several ways.<sup>9</sup>

## Variables in carbon tax design

A carbon tax can be designed in different ways. When to tax, what to tax, at what rate to tax, and the trade implications of the tax are all factors to consider. The tax could be applied to CO2 only or to a mixture of GHGs in the form of tCO2e. The tax could be applied to specific sectors or to entities that emit the most GHGs. The tax could specify a point in the production process for application. Such specification could significantly impact the number of sources subject to the tax. "For example," the

"According to Genesis 2:15, our role within creation is to serve and to keep God's garden, the earth. 'To serve,' often translated 'to till,' invites us again to envision ourselves as servants, while 'to keep' invites us to take care of the earth as God keeps and cares for us (Numbers 6:24-26)."

-ELCA social statement, Caring for Creation: Vision, Hope and Justice, page 3

Congressional Research Service explains, "with respect to petroleum, the number of upstream sources—wells that produce crude oil—is over 445,000, but the number of midstream sources—facilities that refine crude oil—is only 137."<sup>10</sup>

Additionally, the tax could be set either at a one-time rate or at a graduated rate that's adjusted upward over time. A graduated rate delays the maximum reduction of GHG emissions but allows consumers to adjust their energy usage before higher tax rates go into effect.

Trade imbalance is also a concern when evaluating carbon tax rate results. The Congressional Research Service study quoted above notes that "a U.S. carbon tax could raise U.S. prices more than the prices of goods manufactured abroad, potentially creating a competitive disadvantage for some domestic businesses. Certain businesses may become less profitable, lose market share, and reduce jobs."<sup>11</sup> The study also explores a border-adjustment mechanism for such emissions-intensive imports as steel,

## aluminum, cement and certain chemicals.

## Distribution of carbon tax revenue or dividend

A carbon tax will increase energy cost, but it will also produce revenue. Policy goals will determine how the revenue is distributed — to a general fund that supports deficit reduction, for instance, or in some manner that stimulates the economy. Revenue might fund a dividend to households on a pro rata basis or to specific groups, such as low-income households or energy-intensive communities in rural America. The latter possibility is called revenue recycling. "In general, the economic carbon tax studies usually agree on the relative ranking of revenue recycling options in terms of their ability to mitigate the economy-wide impacts of a carbon tax program. The studies indicate that the approaches that use carbon tax revenue to proportionately lower existing tax rates are able to mitigate more of the carbon tax economy-wide costs than using the revenue to provide a lump-sum distribution to individuals or households."<sup>12</sup>

## Principles

The ELCA social statement *Sufficient, Sustainable Livelihood for All* references the church's teaching on care for creation:

Without appropriate environmental care, economic growth cannot be sustained. Caring for creation means that economic processes should respect environmental limits. "When we act interdependently and in solidarity with creation, we do justice. We serve and keep the earth, trusting its bounty can be sufficient for all, and sustainable."<sup>13</sup>

The imposition of a carbon tax must be examined holistically and in a manner that causes no harm, embracing justice in political, economic, social and environmental spaces and actions. Support or opposition to carbon tax legislation should be viewed and evaluated for:

PARTICIPATION	All of humanity is included
SOLIDARITY	Standing with all creation
SUFFICIENCY	Meeting the basic needs of humanity
SUSTAINABILITY	Providing a quality of life for current and future generations

The following principles in carbon pricing or carbon tax policy can move us toward the pressing goal of reduced GHG emissions and just application of that pricing or policy:

- Any carbon tax must be structured to respect the jeopardy of vulnerable populations and those living in poverty.
- Any carbon pricing mechanism must not be fiscally regressive but rather must respect vulnerable populations and those living in poverty.
- Emissions targets should be consistent with credible science and with the IPCC special report's directive that global warming be kept at 1.5 degrees Celsius or less.
- An adjustment mechanism should be included in case the emissions targets are not being met.
- Federal agencies should not be prohibited from proposing new regulations on GHGs if such regulations are needed.
- An effective carbon tax must be applied to as many sectors as possible. Because of the global nature of the problem, border issues and trade policies must also be considered in designing the tax, so that

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problems aren't remedied through workarounds.

- The process for identifying problems and implementing solutions in a carbon tax should be participatory and transparent for all stakeholders.
- The pricing mechanism itself should be transparent and accountable to government authority to ensure that goals are being met.
- Portions of the revenue collected should be used to invest in worker transition, community resilience and renewable energy, with priority given to helping all communities adapt and become more resilient.
- Transparency and accountability should be built into the pricing mechanism.
- The mechanism for awarding rebates to individuals/households should reach the most vulnerable, regardless of income or citizenship.
- Existing environmental and climate change protections should not be rolled back.

## **Questions for legislators**

Shaped by carbon pricing factors and the compelling priority of mitigating GHG impacts as we seek to keep and care for the earth as God keeps and cares for us, ask your legislators<sup>14</sup> questions that can clarify the implications of policy decisions to develop and implement a carbon tax. "In its pursuit of justice, this church must question responses that are quick, easy, and, therefore, probably inadequate," says one ELCA social statement.<sup>15</sup> Contact ELCA Advocacy for suggested questions.

#### ENDNOTES

1 See "Global Warming of 1.5°C" (2018) from the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing science related to climate change response, <u>http://www.ipcc.ch/report/sr15/</u>. See also ELCA Advocacy's reflection resource, "This Moment in Time: 2018 IPCC Report and Caring for Creation,"

https://download.elca.org/ELCA\_Resource\_Repository/Environment\_IPCC\_Report\_Resource\_1811v2.pdf. In addition, see "Climate Change and Land," <a href="https://www.ipcc.ch/report/srccl/">https://www.ipcc.ch/report/srccl/</a>, and "Special Report on the Ocean and Cryosphere in a Changing Climate," <a href="https://www.ipcc.ch/srocc/">https://www.ipcc.ch/report/srccl/</a>, and "Special Report on the Ocean and Cryosphere in a Changing Climate," <a href="https://www.ipcc.ch/srocc/">https://www.ipcc.ch/report/srccl/</a>, and "Special Report on the Ocean and Cryosphere in a Changing Climate," <a href="https://www.ipcc.ch/srocc/">https://www.ipcc.ch/srocc/</a>.

2 See "Fourth National Climate Assessment, Volume II: Impacts, Risks, and Adaption in the United States," <u>https://nca2018.globalchange.gov</u>. This congressionally mandated report by the U.S. Global Change Research Program was released November 23, 2018.

3 Additional background on impacts to weather, food assistance, global food security, health, housing, migration and resilience can be found in the "Prepared to Care" series, <u>https://elca.org/resources/advocacy#CongregationStudies</u>.

4 "Why Lutherans Care for Creation: Building on Our Foundations in the Ongoing Reformation of the Church" (Chicago: Evangelical Lutheran Church in America, 2018), <u>http://download.elca.org/ELCA\_Resource\_Repository/Why\_Lutherans\_Care\_For\_Creation.pdf</u>.

5 See "Report of the Memorials Committee" (Chicago: Evangelical Lutheran Church in America, 2019): 18, https://download.elca.org/ELCA\_Resource\_Repository/Section\_VII-Report\_of\_Memorials\_Committee.pdf.

11 Ibid.

12 Ibid.

14 Find tips on in-district meetings with your U.S. representative at <a href="http://download.elca.org/ELCA\_Resource\_Repository/Toolkit\_In\_District\_Meetings.pdf">http://download.elca.org/ELCA\_Resource\_Repository/Toolkit\_In\_District\_Meetings.pdf</a>

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<sup>6</sup> See "Carbon Pricing 101," https://ucsusa.org/resources/carbon-pricing-101.

<sup>7 &</sup>quot;What Is Carbon Pricing?," https://carbonpricingdashboard.worldbank.org/what-carbon-pricing.

<sup>8</sup> Find this definition and others in "The Dictionary of the Climate Debate (DCD)," http://www.odlt.org/dcd/home.html.

<sup>9</sup> For carbon-pricing mechanisms in addition to the focus of this resource – carbon tax with dividend – see the World Bank's Carbon Pricing Dashboard, <u>https://carbonpricingdashboard.worldbank.org/what-carbon-pricing</u>.

<sup>10</sup> Congressional Research Service, "Attaching a Price to Greenhouse Gas Emissions With a Carbon Tax or Emissions Fee: Considerations and Potential Impacts," March 22, 2019, <u>https://fas.org/sgp/crs/misc/R45625.pdf</u>.

<sup>13</sup> Sufficient, Sustainable Livelihood for All (Chicago: Evangelical Lutheran Church in America, 1999), <u>http://download.elca.org/ELCA\_Resource\_Repository/Economic\_LifeSS.pdf</u>.

<sup>15</sup> Freed in Christ: Race, Ethnicity, and Culture (Chicago: Evangelical Lutheran Church in America, 1993), 6.