

May 11, 2022

NYSERDA
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Albany, NY 12203-6399
Submitted via email: scopingplan@nyserda.ny.gov

RE: Climate Action Council Draft Scoping Plan

Dear Sir/Madam:

On behalf of SUNY College of Environmental Science and Forestry, we are submitting comments in response to the Climate Action Council Draft Scoping Plan published on January 1, 2022 to inform the Council of research supporting market instruments in the form of tradable emissions certificates for buildings that fill a gap between regulatory command-and-control policy and voluntary standards.

Chapter 12: Buildings

Section B6. Align Energy Price Signals with Policy Goals

1. As indicated on page 138, the Draft Scoping Plan calls for an economy-wide strategy that would price carbon emissions, which are expected to increase consumer energy prices for fossil fuels. Tradable certificate schemes in other jurisdictions focused on building space and water heating-related emissions provide lessons for New York's policymakers. Emissions reduction strategies for building owners include adopting low-carbon technologies, purchasing emission permits from an Emissions Trading System (ETS) market, and assuming risk of penalties for non-compliance. In theory, under Tradable Emissions Permits (TEP), the fall in permit price produced by technology adoption reduces the benefits of violating the environmental regulation at the margin and leads building owners to modify their compliance behavior. The deterrent effect of the monitoring effort is reinforced by the effect that technology adoption has on the extent of violations.¹ **We recommend regulators aim to accelerate diffusion of new technologies under TEP by increasing the stringency of the enforcement strategy predictably over time.**
2. China included the building sector in its Energy-Consumption Permit Trading System (ECPTS) pilots in 2016, but there was little practical trading. A building owner's optimal strategy is to achieve required carbon emissions reduction with minimal incremental costs. Key influencing factors that affect the owners' strategic choice are the probability of government environmental inspection, the penalty for non-compliance, and an owner's reputation loss². In China, the impact of the ECPTS on energy consumption and energy intensity depended significantly on

1 Villegas-Palacio, C., Coria, J. On the interaction between imperfect compliance and technology adoption: taxes versus tradable emissions permits. *J Regul Econ* 38, 274–291 (2010). <https://doi.org/10.1007/s11149-010-9125-0>

2 Xiangnan Song, Yujie Lu, Liyin Shen, Xunpeng Shi, Will China's building sector participate in emission trading system? Insights from modelling an owner's optimal carbon reduction strategies, *Energy Policy*, Volume 118, 2018, Pages 232-244, ISSN 0301-4215. <https://doi.org/10.1016/j.enpol.2018.03.075>.

energy structure adjustments.³ **We recommend a joint system of energy-consuming permit (ECP) and carbon emissions permit (CEP), which reduces the total costs of saving energy and reducing emissions.** Moreover, the joint trading system in China helped optimize energy consumption structure and decrease carbon intensity. Policymakers should note while total energy consumption increased, total carbon emissions decreased during the trial period.⁴ Models suggest that the penalty for non-compliance should be at least 6 times the carbon price to fully activate the building-based ECPTS market.²

3. Tokyo's ETS experience with tradeable emissions allowances for buildings lends some credence to the concern that building owners will hesitate to sell allowances. Tokyo saw very little trading in the years after the ETS was launched. Instead of trading permits, facilities tended to bank their surplus.⁵ Given Tokyo's experience and the particular disincentives building owners have to surrender permits, **we recommend enacting measures that encourage permit liquidity, such as lowering the cost of trading allowances and linking trading with other jurisdictions.**
4. In the European Union (EU), emissions from fossil fuels used in buildings will soon be covered by a new, separate cap-and-trade emissions trading system. This new upstream system will regulate fuel suppliers rather than households or businesses. Fuel suppliers will be required to hold a greenhouse gas emissions permit and to report their emissions beginning in 2024. The cap in the new EU ETS will be reduced annually to yield emissions reductions of 43% in 2030 compared to 2005,⁶ delivering a clear signal on ambition. **We recommend that suppliers to New York be responsible for monitoring and reporting the quantity of fuels they place on the market and for surrendering emission allowances each calendar year depending on the carbon intensity of the fuels.** This approach incentivizes the fuel suppliers to decarbonize their product as this will reduce the cost of compliance with the emissions trading system. A certain number of EU allowances would be frontloaded and a Market Stability Reserve will operate to contain excessive increases in the carbon price.
5. California's ETS has included upstream heating fuels for buildings since 2015. It builds on the lessons learned from RGGI and the EU ETS. Emission allowances are distributed by a mix of free allocation and quarterly auctions. **We recommend the portion of emissions covered by free allowances varies by industry and declines predictably over time.** California's program also sets a price floor for each auction, which can be helpful in encouraging investments in emission-reducing technologies that would be undermined if allowance prices were too low.⁷

3 Yanfang Zhang, Siyuan Guo, Xunpeng Shi, Xiangyan Qian, Rui Nie, A market instrument to achieve carbon neutrality: Is China's energy-consumption permit trading scheme effective?, *Applied Energy*, Volume 299, 2021, 117338, ISSN 0306-2619. <https://doi.org/10.1016/j.apenergy.2021.117338>.

4 Yizhong Wang, Ye Hang, Qunwei Wang, Joint or separate? An economic-environmental comparison of energy-consuming and carbon emissions permits trading in China, *Energy Economics*, Volume 109, 2022, 105949, ISSN 0140-9883. <https://doi.org/10.1016/j.eneco.2022.105949>.

5 Spiegel-Feld, Danielle. 2019. Local Law 97: Emissions Trading for Buildings. *New York University Law Review Online* Vol 94:148. <https://www.nyulawreview.org/online-features/local-law-97-emissions-trading-for-buildings/>

6 European Commission. 2021. Questions and Answers - Emissions Trading – Putting a Price on carbon. https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_3542.

7 Peace, Janet and Jason Ye. Market Mechanisms: Options for Climate Policy. Center for Climate and Energy Solutions. April 2020. <https://www.c2es.org/wp-content/uploads/2020/04/market-mechanisms-options-climate-policy.pdf>

Section B4. Scale Up Public Financial Incentives

6. As indicated on page 133, the Draft Scoping Plan recommends policy mechanisms such as cap-and-invest and carbon pricing to provide a new source of funding for policy actions. A “feebate” tax on fossil fuel equipment and allocating ensuing revenues to support building decarbonization is suggested. The EU reforms are accompanied by measures helping the regulated entities to meet the higher ambition. To overcome the low-carbon innovation investment gap and to address distributional effects of emission trading, the EU Commission proposes to increase the size of its Modernization Fund by 2.5% of allowances from the total quantity.⁶ In addition, an Innovation Fund will be bolstered from limited auctions. **We recommend auctions of allowances up to 25% of total allocations that would otherwise be allocated for free to industry sectors.** Proceeds from auctions can bolster funds used to address the social impacts arising from the fact that the fuel suppliers are likely to pass on some of their carbon costs to consumers buying heating fuels.

7. An inclusive model for the emissions trading system in NYS would promote decarbonization of buildings in the environmental justice (EJ) areas. Allowing service providers and commercial tenants to own, buy, and sell credits could enable innovative solutions to the owner-tenant gap and incentivize tenant actions to reduce emissions.⁸ **We recommend that a credit multiplier system be established to encourage investment from retrofit providers in EJ areas, who will pay upfront costs and sell the credits, thereby achieving greater carbon reduction in the EJ areas.** A maximum percentage of compliance through purchase of credits by buildings in compliance would guarantee onsite upgrades.

Thank you for the opportunity to comment on the Climate Action Council Draft Scoping Plan. Please take this research into consideration when constructing adjustments for the final scoping plan.

Sincerely,

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⁸ Urban Green Council (2020). Trading: A New Climate Solution for Buildings.
https://www.urbangreencouncil.org/sites/default/files/trading_report_urban_green_2020.pdf