

Caiazza Comment on Disadvantaged Community Criteria

Documentation

In order to provide these comments, I reviewed the Technical-Documentation-on-Disadvantaged-Community-Criteria (“Documentation Report”) document and the Technical-Documentation-Appendix-Draft-Disadvantaged-Communities-Indicator-Workbook (“Technical Spreadsheet”). Unfortunately, the Technical Spreadsheet only provides data and does not include the formulae used to calculate the Disadvantaged Community Criteria scores. Moreover, the Environmental Burden and Climate Change Risk Indicators in Section 6.2 of the Documentation Report don’t use the same terminology as the headers of the columns in the Technical Spreadsheet. Because the calculation methodology is not available and what is provided is not documented well, I didn’t even try figure out how the scores are calculated in the Technical Spreadsheet so that I could not test alternate weighting schemes.

Disadvantaged Community Scoring Criteria

Based on my review of the Documentation Report I agree that the census tract is the appropriate geographical unit for the Disadvantaged Community Scoring methodology. The calculation methodology also is appropriate and I cannot think of any recommended adjustments.

My biggest concern is that I believe that this process over-emphasizes communities and that those people who individually meet the draft Disadvantaged Community (DAC) criteria but happen to live in a community that as a whole does not meet those criteria will be victimized by that accident of geography. I am not sure how to interpret this statement:

Additionally, for the purpose of State agencies investing or directing a percentage of clean energy and energy efficiency programs, projects, or investments to DACs, pursuant to ECL § 75-0117, the draft DAC criteria includes **low-income households located anywhere in the State**, defined as households reporting annual total income at or below 60% of State Median Income, or are otherwise categorically eligible for low-income programs (i.e., Home Energy Assistance Program).

This statement seems to suggest that low-income households located anywhere in the State will still be priorities for the percentage of clean energy and energy efficiency programs, projects, and investments. If that is not the case then I strongly recommend that the CJWG address this need.

The rationale presented for this component of the Climate Act is presented at the [Disadvantaged Communities Criteria website](#):

Climate change does not affect all New Yorkers equally. It is a threat exacerbated by burdens, vulnerabilities, and stressors that differ across communities statewide. For this reason, a cornerstone of New York’s nation-leading Climate Leadership and Community Protection Act (Climate Act) to identify and consider the impact of implementing the Climate Act and other regulatory actions on underserved and vulnerable populations.

I do not disagree that extreme weather impacts are exacerbated by burdens, vulnerabilities, and stressors that differ across individuals and communities statewide. However, I believe that the cost impacts of the ill-conceived emphasis on wind and solar resources will have a larger impact on disadvantaged communities and individuals than extreme weather. The fact is that development of

wind and solar resources have caused energy costs to sky rocket in every other jurisdiction where similar efforts have been attempted. The Climate Justice Working Group (CJWG) has bought into the renewable energy approach despite the fact that low- and middle- income residents of the state will be hurt more by the regressive increase in energy costs than the alleged future impacts of climate change. An immediate priority of the CJWG should be a demand for the Climate Action Council to develop a feasibility analysis that includes cost projections for rate-payers and explanations what will be required for the plans outlined in the Draft Scoping Plan.

The Climate Justice Working Group Disadvantaged Communities scoring process is very complicated. The development process considered 170 indicators, evaluated 100 with data, and ended up including 45 in the scoring methodology. For the most part I accept the indicators chosen but I do disagree with the weighting system used.

In addition to the previously described over-emphasis on communities the indicators also reflect a bias to urban issues. In order to balance that concern I think that an indicator of the amount of wood-burning would have been appropriate. In brief, wood smoke is nasty and certainly as big an air quality issue as the parameters included.

The report explains that 45 selected Indicators are grouped into seven sets, referred to as factors, to bundle similar concepts for weighting purposes. In brief the scoring system calculates a value for each census tract. The percentiles are calculated so that they can be inter-compared. The percentile approach to scoring created a relative ranking of census tracts on each indicator. This allowed all 45 indicators to be on the same scale so they could be added or averaged together in a scoring approach.

The seven factors are categorized into two components:

Environmental Burdens and Climate Risks:

- (1) Potential Pollution Exposures
- (2) Land Use Associated with Historical Discrimination or Disinvestment
- (3) Potential Climate Change Risks

Population Characteristics and Health Vulnerabilities:

- (4) Income, Education, and Employment
- (5) Race, Ethnicity, and Language
- (6) Health Outcomes and Sensitivities
- (7) Housing, Energy, and Communications

Each Factor Score for a given census tract is calculated as a weighted average of indicator percentile ranks for that factor's associated indicators. The text suggests that the indicators can be weighted differently but I could not find documentation describing what weighting factors were used. The indicator values are combined to generate a factor score for each census tract. Next, the seven factors are grouped into the following two sets, referred to as Components: (1) Environmental Burdens and Climate Change Risks and (2) Population Characteristics and Vulnerabilities so that a component score can be calculated. Because there are four factors in the Population Characteristics and Vulnerabilities component and three factors in the Environmental Burdens and Climate Change Risks component, the Potential Climate Change Risks factor is weighted twice as much as any other factor for inter-comparability. The following lists the components, indicators, and factors used:

Environmental Burdens and Climate Change Risk

- Potential Pollution Exposures
 - Vehicle traffic density diesel truck and bus traffic
 - Particulate matter (PM2.5)
 - Benzene concentration
 - Wastewater discharge
- Land use and facilities associated with historical discrimination or disinvestment
 - Proximity to remediation sites
 - Proximity to regulated management plan sites
 - Proximity to major oil storage facilities
 - Proximity to power generation facilities
 - Proximity to active landfills
 - Proximity to municipal waste combustors
 - Proximity to scrap metal processors
 - Industrial/manufacturing/mining land use
 - Housing vacancy rate
- Potential Climate Change Risks (This factor is weighted double)
 - Extreme heat projections
 - Flooding in coastal and tidally influenced areas (projected)
 - Flooding in inland areas (projected)
 - Low vegetative cover
 - Agricultural land
 - Driving time to hospitals or urgent/critical care

Population Characteristics and Health Vulnerabilities

- Income
 - Percent <80% Area Median Income
 - Percent <100% of Federal Poverty Line
 - Percent without bachelor's degree
 - Unemployment rate
 - Percent single-parent households
- Race and Ethnicity
 - Percent Latino/a or Hispanic
 - Percent Black or African American
 - Percent Asian
 - Percent Native American or Indigenous
 - Limited English proficiency
 - Historical redlining score
- Health Outcomes & Sensitivities
 - Asthma emergency department visits
 - COPD emergency department visits
 - Heart attack (MI) hospitalization
 - Premature deaths

- Low birthweight
- Percent without health insurance
- Percent with disabilities
- Percent adults age 65+
- Housing Mobility & Communications
 - Percent renter-occupied homes
 - Housing cost burden (rental costs)
 - Energy poverty / cost Burden
 - Manufactured homes
 - Homes built before 1960
 - Percent without internet

In my opinion the situation in Europe clearly demonstrates that CJWG should be very concerned about the impact of the net-zero transition on energy prices. I wrote this section on August 2, 2022. Today's Net Zero Watch Newsletter highlighted X articles related to energy affordability. According to [The Herald, 2 August 2022](#) United Kingdom Energy bills are forecast to hit £3,615 amid worsening cost-of-living crisis. It notes that Charity National Energy Action last month predicted that, should the average bill reach £3,250 per year, 8.2 million UK households will be in fuel poverty, or one in three. The [Daily Mail, 1 August 2022](#) notes that one in eight Britons have said that they have nothing left to cut back on to help pay for energy when prices jump further. An article in [Bloomberg, 1 August 2022](#) explains that Germany has three months to save itself from a winter gas crisis that will affect prices and availability. [Francis Menton](#) explains that following the German example will eventually increase costs. [The price to German households for electricity at the end of 2021](#) stood at an average of 32.16 cent per kWh, which is before any further recent increases. That is about triple the average U.S. consumer electricity price. He notes that even with those high prices Germans face a bleak winter with shortages and rationing.

In order to address the affordability inevitable affordability issues occurring in Europe today I recommend revising the components and factors. In brief I would add a third component called Unintended Policy Vulnerabilities that would be made up of the housing, mobility, and communications factor indicators. Energy poverty and housing cost burden indicators would be promoted to factors and the remaining indicators would be put into a factor using the old name. Based on my understanding of the scoring methodology this would prioritize funding for those communities and individuals most likely to be hurt by regressive energy prices due to the net-zero energy transition. The following lists the components, indicators, and factors used in my proposed revision:

Unintended Policy Vulnerabilities

- Energy poverty / cost Burden
- Housing cost burden (rental costs)
- Housing Mobility & Communications
 - Percent renter-occupied homes
 - Manufactured homes
 - Homes built before 1960
 - Percent without internet

Environmental Burdens and Climate Change Risk

- Potential Pollution Exposures
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I prepared this comment because the Climate Act in general and these criteria in particular are unlikely to have the results that their supporters suggest. I have [written extensively](#) on implementation of the Climate Act because I believe the ambitions for a zero-emissions economy outstrip available renewable technology such that it will adversely affect [reliability](#) and [affordability](#), [risk safety](#), [affect lifestyles](#), will have [worse impacts on the environment](#) than the purported effects of climate change in New York, and [cannot measurably affect global warming](#) when implemented. The opinions expressed in this document do not reflect the position of any of my previous employers or any other company I have been associated with, these comments are mine alone.

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