A decorative graphic on the left side of the slide features several green leaves of various sizes and shapes, some containing aerial photographs of lush green fields and forests. Interspersed among the leaves are solid green circles of different diameters. The overall aesthetic is clean and nature-themed.

Using NLP to understand legislation

An unsupervised analysis of the Clean Energy Jobs Act

Mike Jehl
February 26, 2021



CEJA

A Green New Deal for Illinois

- 100% renewable energy by 2050
- Cut carbon from power sector by 2030
- Create jobs and economic opportunity



NLP for the win

Saves time

Increases public understanding through topic modeling.

Extracts burdens

Extracts the rules and obligations defined in the bill.

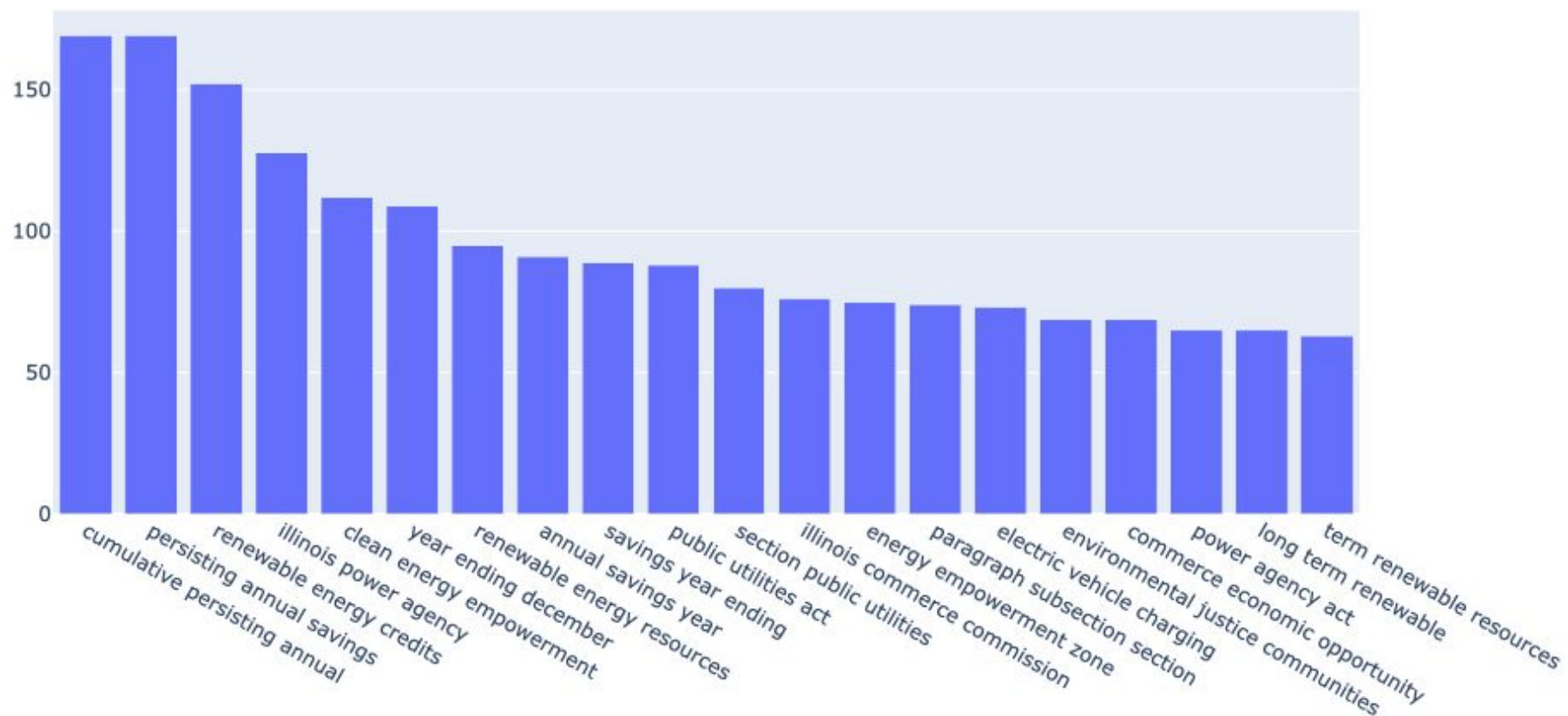
Identifies subjects

Identifies the entities responsible for compliance.



CEJA Analysis

Top 20 trigrams in CEJA



TL/DR -> Auto-summarization

- Section consisting of 838 words down to 80 words

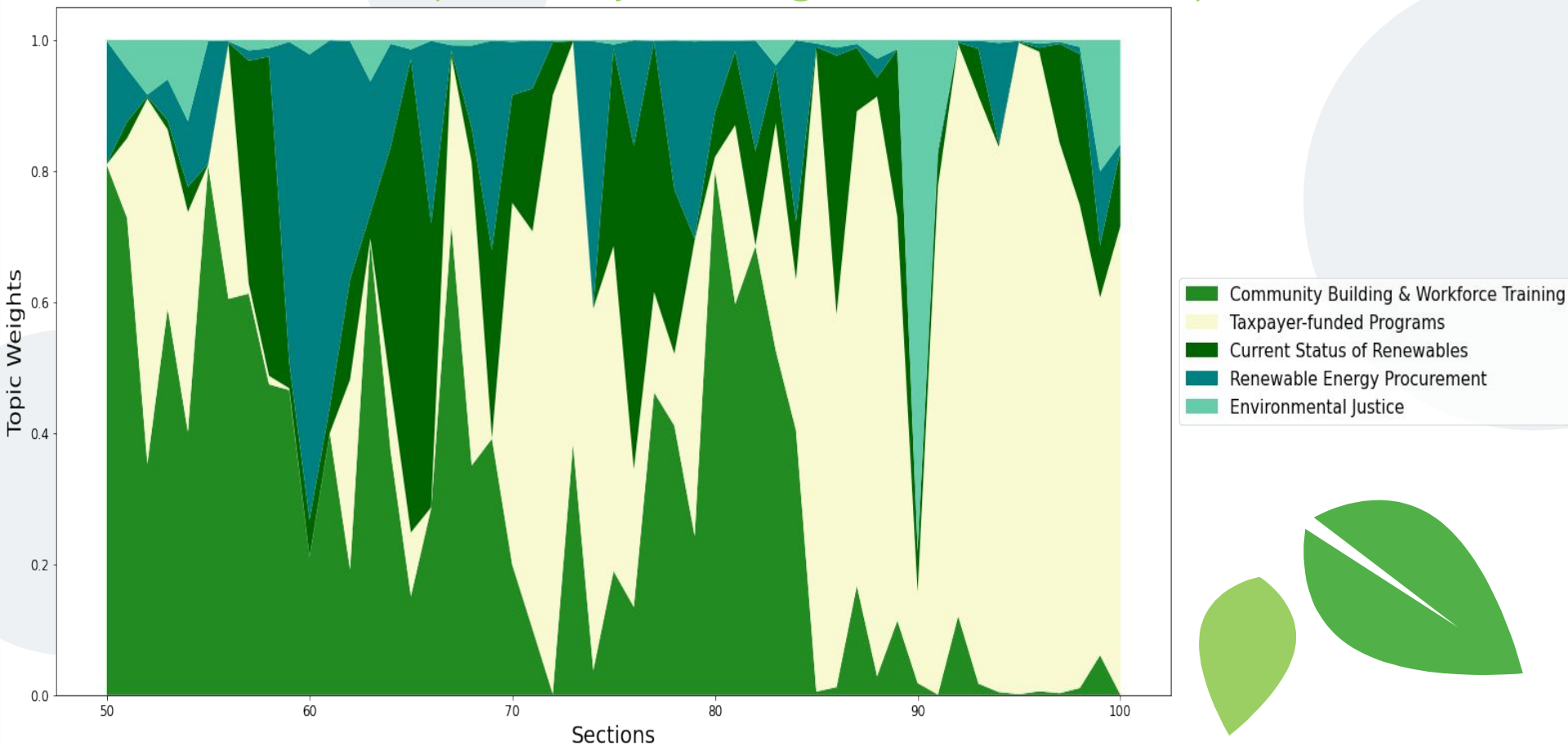
“For eligible customers whose electric service has not been declared competitive pursuant to Section - of this Act as of July , and whose electric delivery service is provided and measured on a kilowatt demand basis and electric supply service is not provided based on hourly pricing, this shall typically be accomplished through use of a dual channel meter capable of measuring the flow of electricity both into and out of the customer's facility at the same rate and ratio.”

Topic Modeling

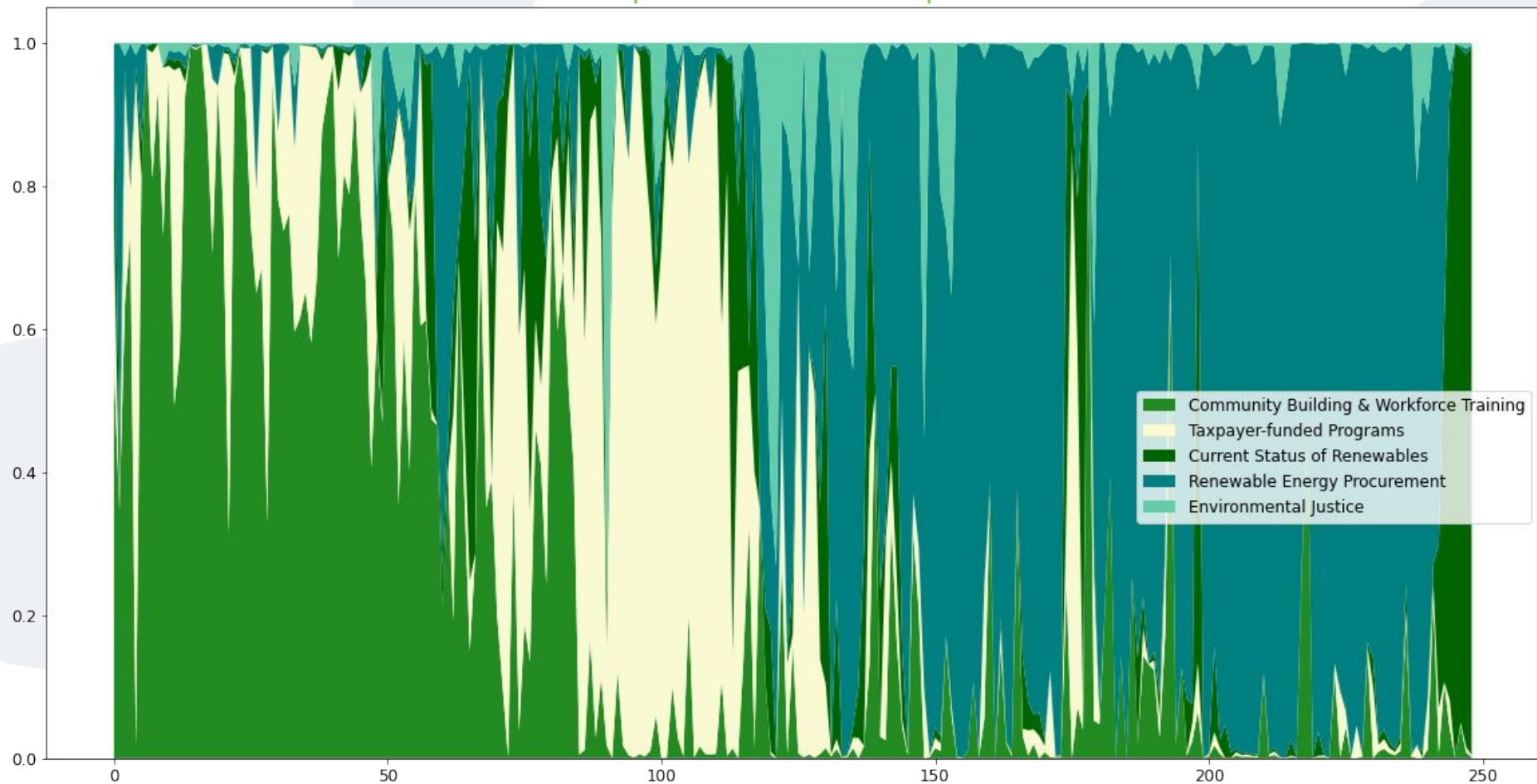
1. Community Building & Workforce Training
2. Taxpayer-funded Programs
3. Current Status of Renewables
4. Renewable Energy Procurement
5. Environmental Justice




Topics vary throughout CEJA: Snapshot



How the topics make up CEJA



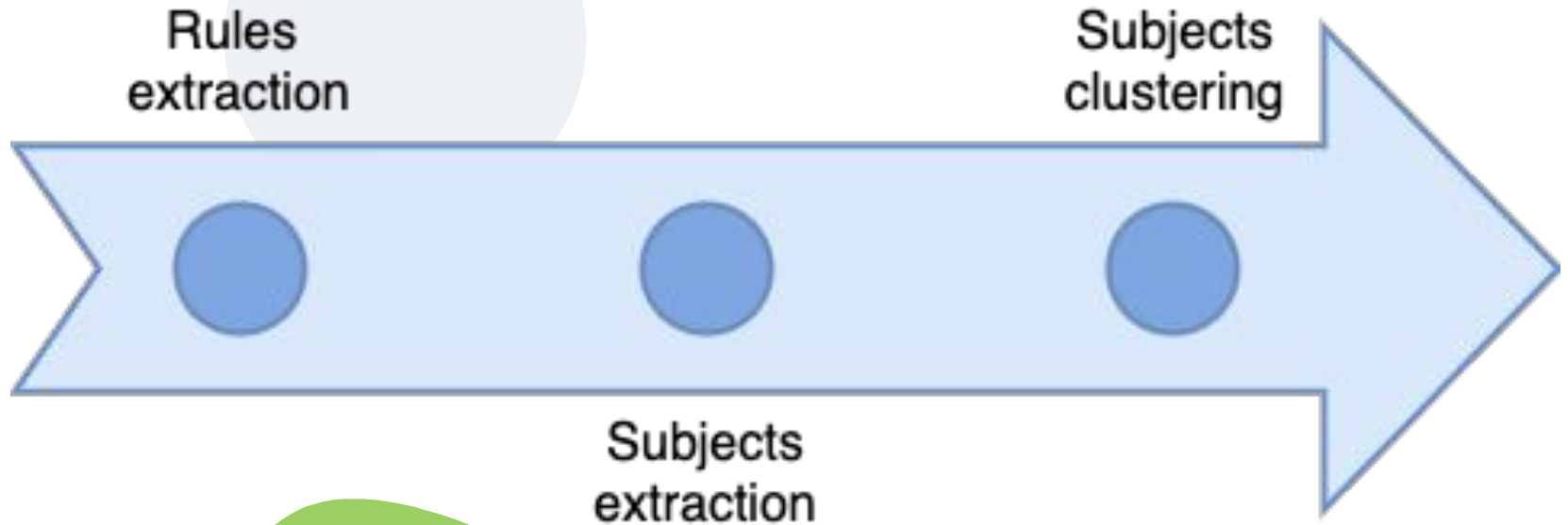


(2) of this subsection (c) the Agency shall increase its spending on the purchase of renewable energy resources to be procured by the electric utility for the next plan year by an amount equal to the amounts collected by the utility under the alternative compliance payment rate or rates in the prior year ending May 31.

(6) The electric utility shall be entitled to recover all of its costs associated with the procurement of renewable energy credits under plans approved under this Section and Section 16-111.5 of the Public Utilities Act. These costs shall include associated reasonable expenses for implementing the procurement programs, including, but not limited to, the costs of administering and evaluating the Adjustable Block program, through an automatic adjustment clause tariff in accordance with subsection (k) of Section 16-108 of the Public Utilities Act.

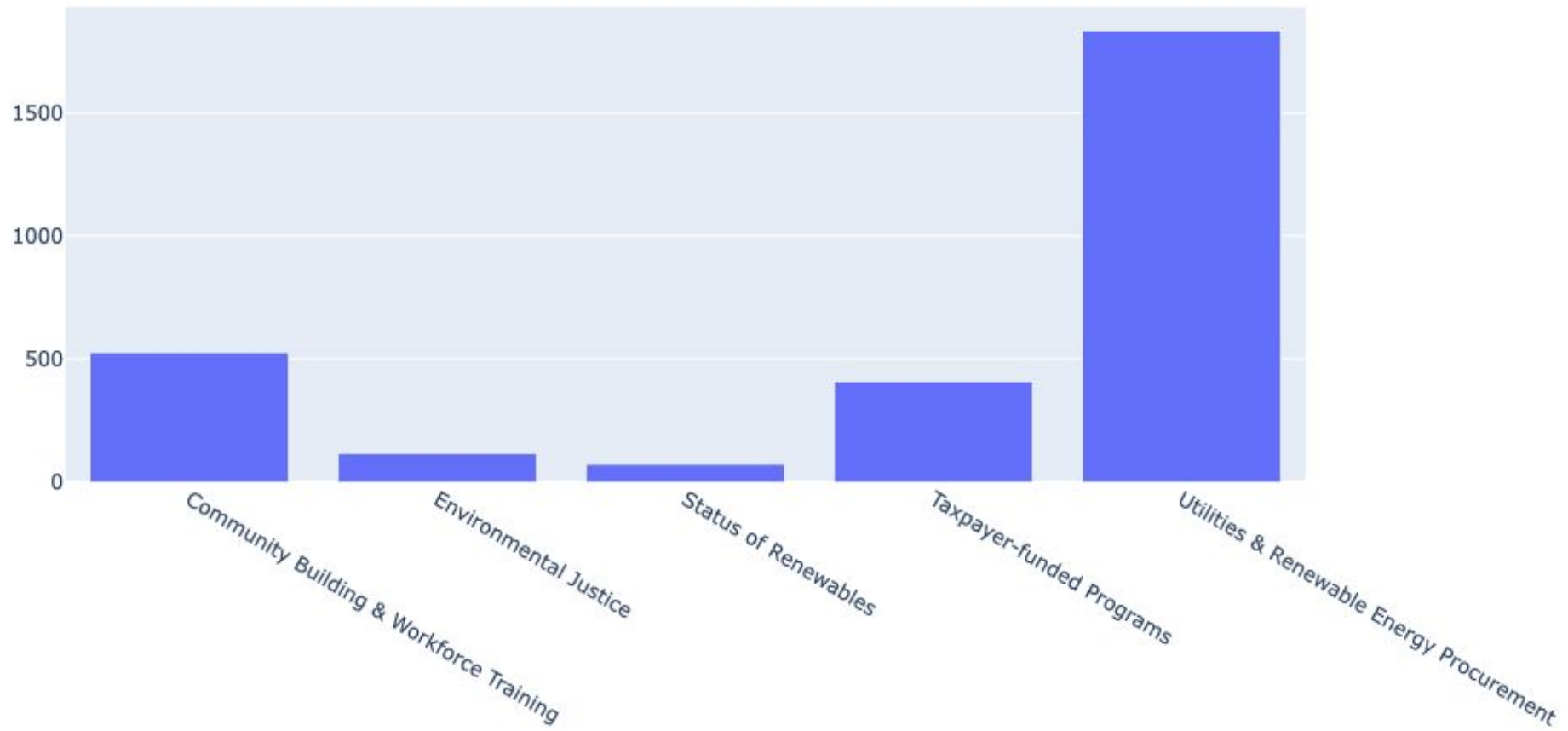
(7) Renewable energy credits procured from new photovoltaic projects or new distributed renewable energy generation devices under this Section after June 1, 2017 (the effective date of Public Act 99-906) must be procured from devices installed by a qualified person in compliance with the requirements of Section 16-128A of the Public Utilities Act and any rules or regulations adopted thereunder.

In meeting the renewable energy requirements of this subsection (c), to the extent feasible and consistent with

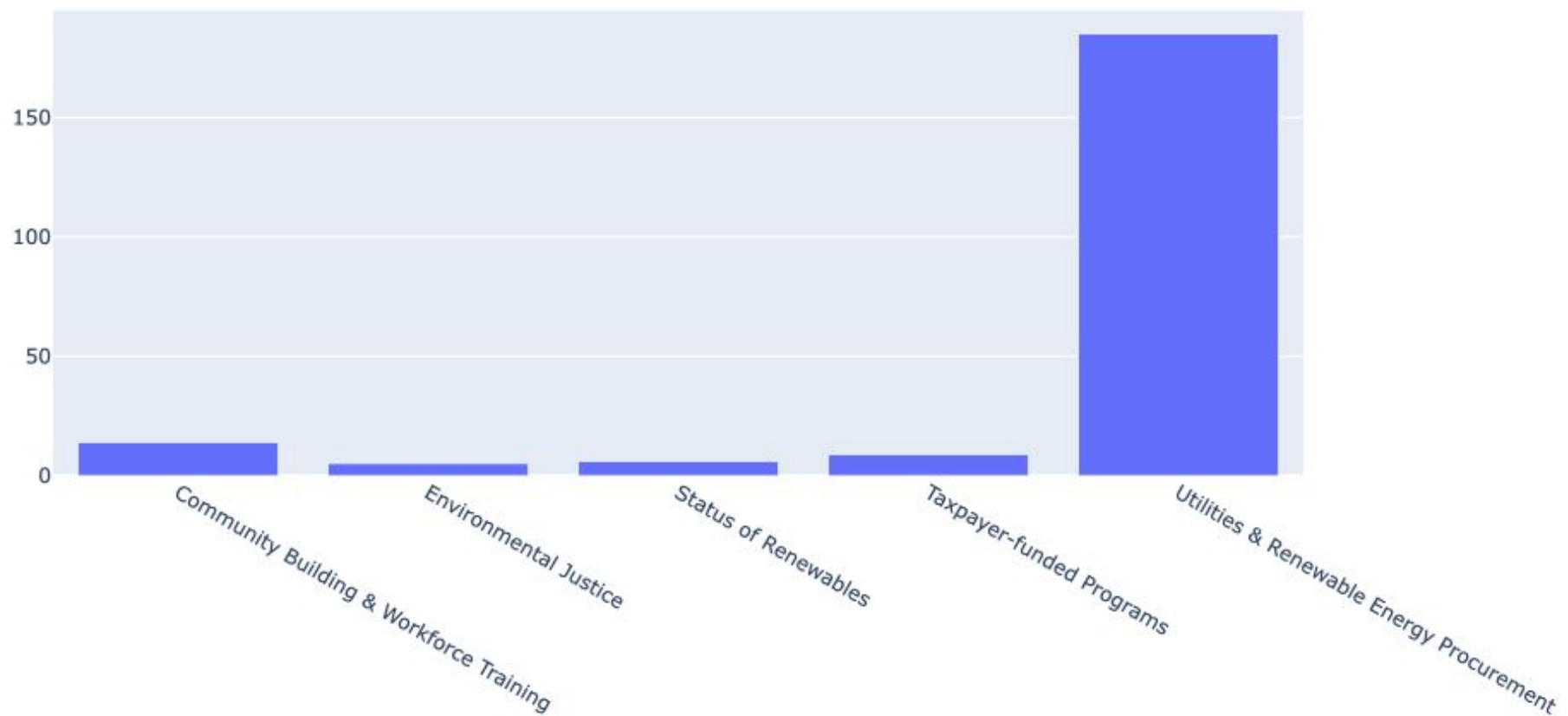


Rule/burden = sentence containing *shall*

Number of Burdens per Topic



Number of Burdens per Topic for the Energy Transition Workforce Commission



Spring Bur mmission



Cosine similarity = 0.5023



Future Work

Thinking Beyond CEJA



Illinois HB804

CLEAN ENERGY JOBS ACT

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Automatic Zoom



HB0804



102ND GENERAL ASSEMBLY

State of Illinois

2021 and 2022

HB0804

by Rep. Ann M. Williams



Thank you.