



COMMUNITY CHOICE AGGREGATION FOR ALEXANDRIA

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LOUDOUN COUNTY SUSTAINABLE ENERGY
COMMITTEE CHAIR

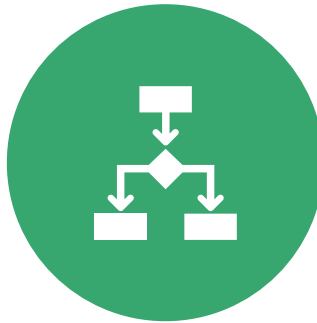
MARCH 10, 2025

What is Community Choice Aggregation?

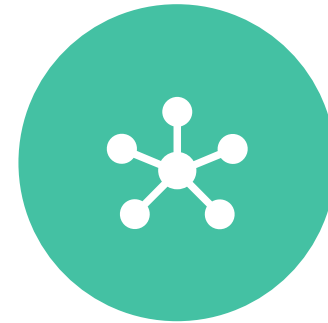
Community Choice Aggregation (CCA), also known as municipal aggregation, is a tool that allows municipalities and counties to purchase power to meet their electricity needs, offering an alternative choice in the market. CCAs can provide the residents and businesses with competitively priced, renewable energy choices while reinvesting revenues into projects and programs, supporting the local economy.



COMMUNITY

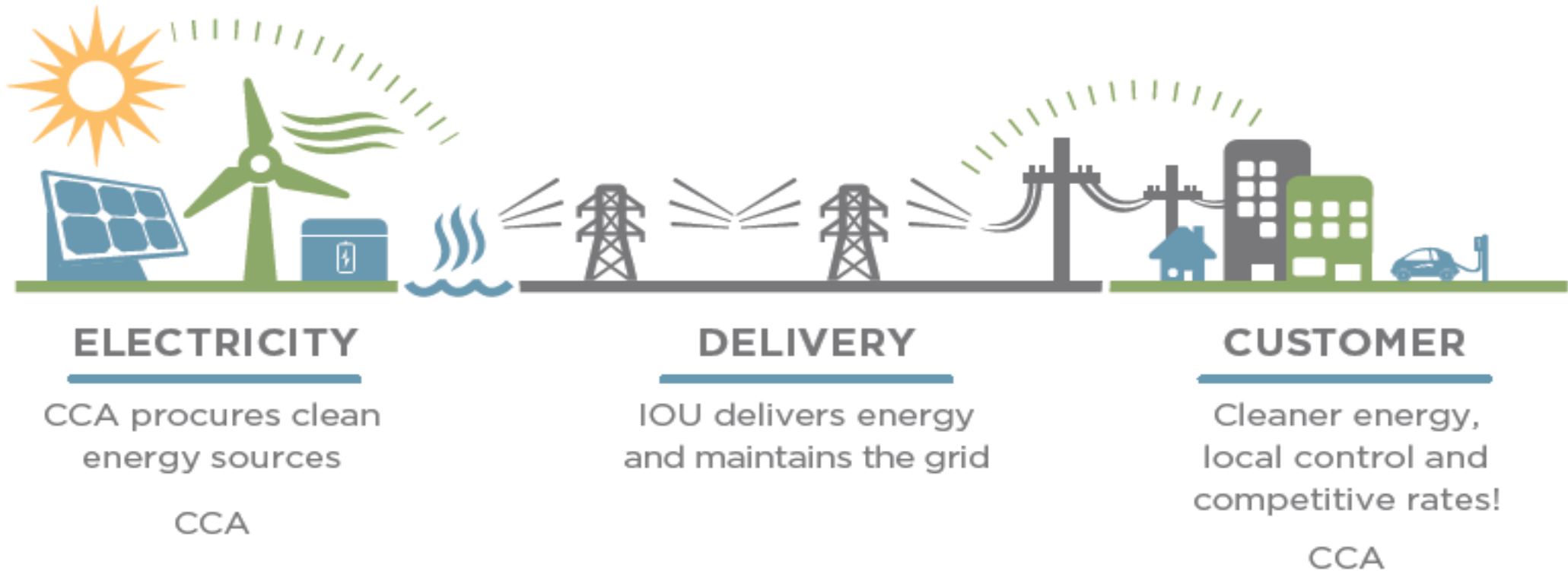


CHOICE



AGGREGATION

How does CCA work?



CCAs Common Features

Offer 100% renewable energy (as default option or choice)

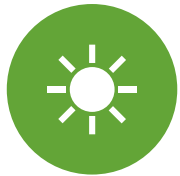
Available to all residents and businesses

Offer stable, predictable pricing for electricity supply

Reinvestment into Community

Local Control

Local Energy Programs & Incentives



Solar PV: Net Energy
Metering, Feed in
Tariff, Rooftop Solar
Incentives, Community
Solar



New Renewable
Energy projects
through PPAs (Utility
Scale)



Electric Vehicle
Rebates and Incentives



Energy Efficiency
Measures: Buildings
Retrofits, Demand Side
Management

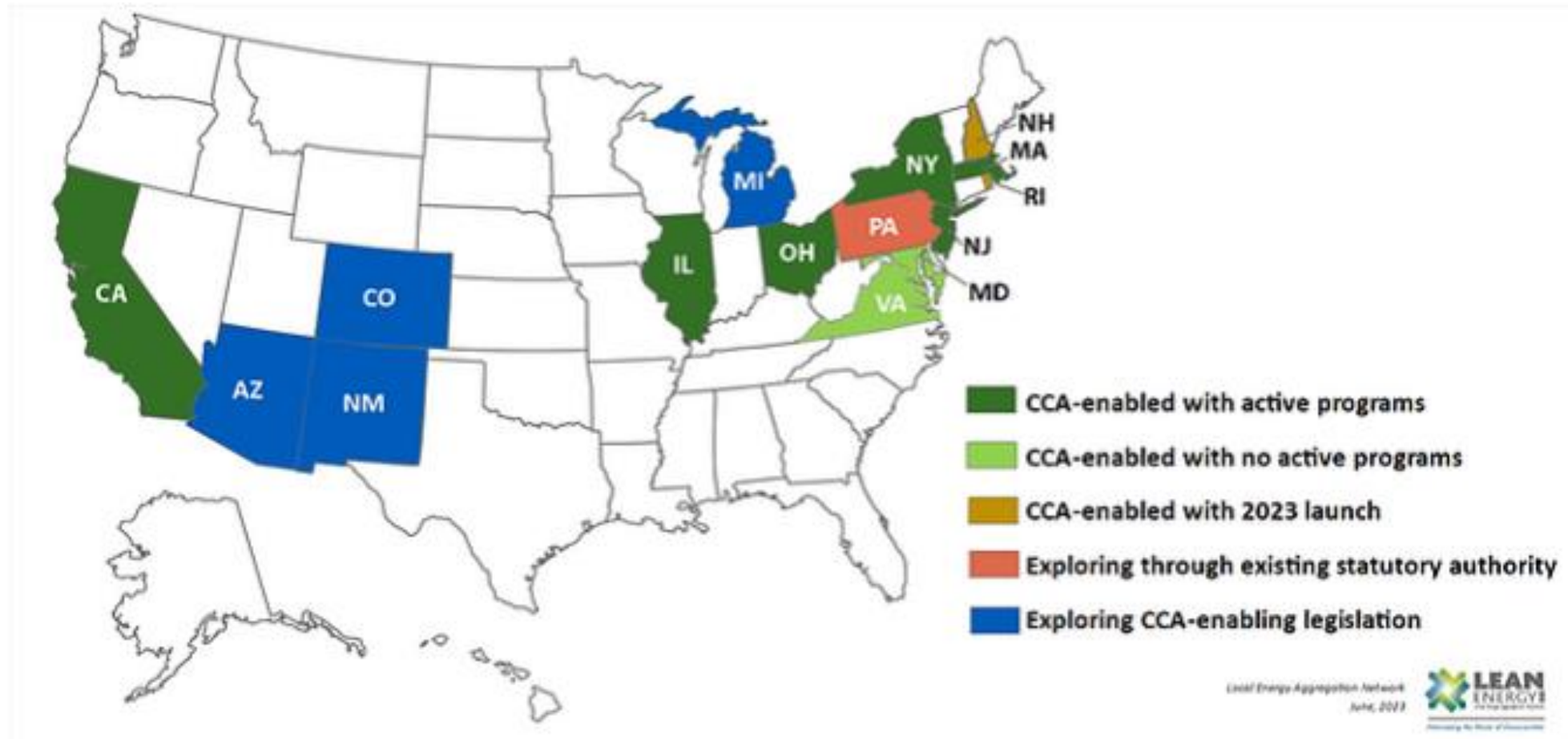


Energy Storage



Micro-Grids

CCA Across the US



What California CCAs are doing



6,248 Megawatts
New Solar Panels

1,376 Megawatts
New Wind Turbines

3,317 Megawatts
New Energy Storage

287 Megawatts
New Geothermal

8 Megawatts
New Biogas

Source: CalCCA

Case 1: Marin Clean Energy

Two Options: 60% Renewable and 100% Renewable Energy



Eliminated over 700K metric tons of GHGs



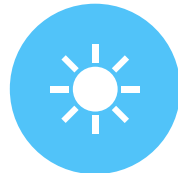
Standard service is **60%** renewable since 2017 and **95%** carbon-free by 2022



MCE customers have saved over **\$31.5M** since 2010



Committed over **\$2.4B** to build new CA renewable projects



48 MW New renewable projects built in their service area



6,000 Jobs in California supported

Source: <https://www.mcecleanenergy.org/compare-options/>

Case 2: 100% Default Option and Choice

Swampscott Community Power's Program Options (MA):



Standard Green (Default Option): 100% renewable electricity from a mix of sources in the State and out of State (**11.406 ¢/KWH**)



New England Green(Choice): 100% renewable electricity from New England (**13.583 ¢/KWH**)



Basic (Choice): meets minimum state requirements for renewable energy (22% (was 14% in 2019)) (**10.603 ¢/KWH**)

Source: <https://www.masspowerchoice.com/swampscott/options-pricing>

CCAs Drivers & Benefits



Higher Renewable Energy Content



Stable and Competitive Rates



Local Management & Control



Fast decarbonization on a large scale

CCA Program Opt-In Vs Opt-Out



OPT-IN

CUSTOMERS REQUIRE TO JOIN
THE PROGRAM



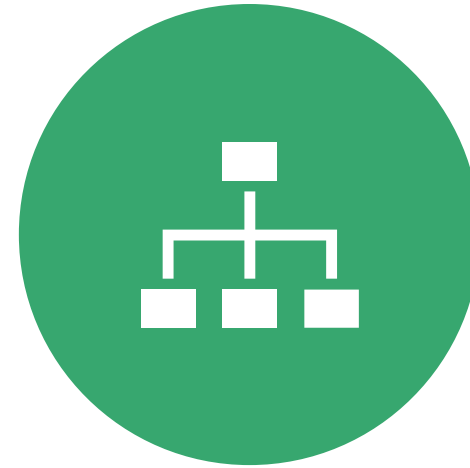
OPT-OUT

CUSTOMERS AUTOMATICALLY
ENROLLED IN THE PROGRAM

Local Management & Control



ADMINISTERED DIRECTLY BY THE
JURISDICTION, OR MULTIPLE
JURISDICTIONS



MANAGED BY A THIRD PARTY
ORGANIZATION ON BEHALF OF THE
MUNICIPALITY OR COUNTY

Illustration: Cape Light Compact (MA)



Source: <https://www.youtube.com/watch?v=frD4EuAIRNo>

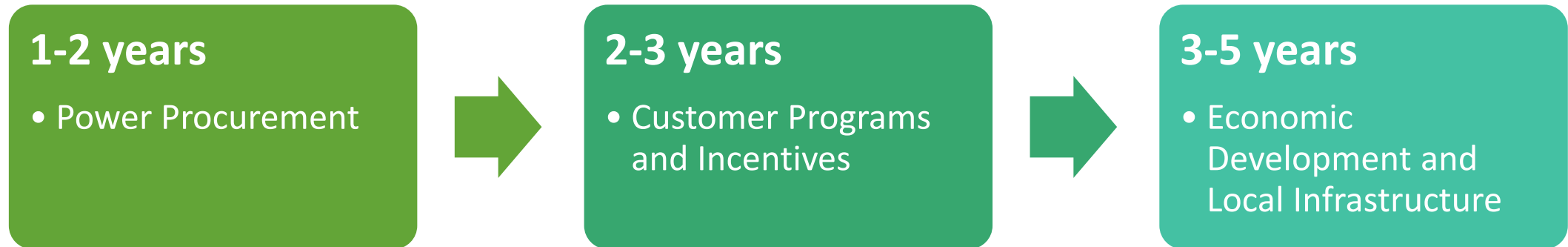
Virginia Code

§ 56-589. Municipal and state aggregation

A. Subject to the provisions of subdivision A 3 of § 56-577, counties, cities, and towns (hereafter municipalities) and other political subdivisions of the Commonwealth may, at their election and **upon authorization by majority votes of their governing bodies, aggregate electrical energy and demand requirements for the purpose of negotiating the purchase of electrical energy requirements** from any licensed supplier within this Commonwealth, as follows:

1. Any municipality or other political subdivision of the Commonwealth may aggregate the **electric energy load of residential, commercial, and industrial retail customers** within its boundaries on an **opt-in or opt-out basis**.

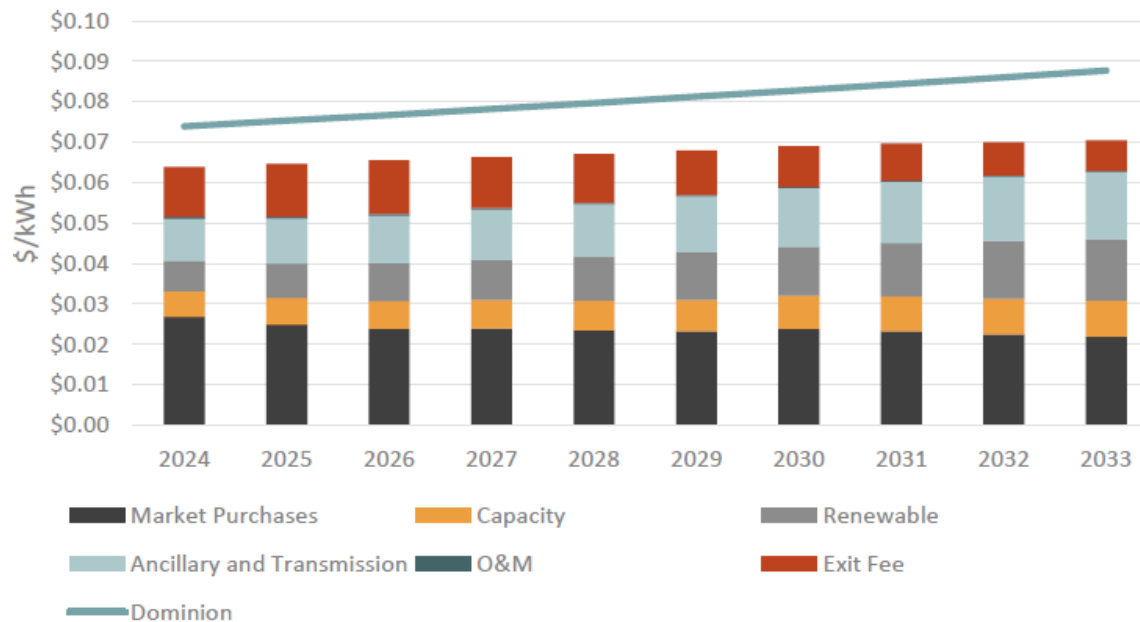
CCA Roadmap to Energy Transformation



Note: Timeline can vary depending on various factor, including local context

Loudoun County Feasibility Study

FIGURE 1-5. GENERATION RATE COMPARISON: BASE CASE PORTFOLIO



KEY FINDINGS

The Study results show that a County municipal aggregation is financially feasible under all resource portfolio options and can provide the following benefits:

- Provide power supply that has a higher percentage of RE than Dominion
- Generation rates could be 15% lower compared with Dominion generation rates
- Reduce greenhouse gas (GHG) emissions
- Provide net income or additional savings which can be used for other related purposes*

Source: GDS Associates, Loudoun County Municipal Aggregation Technical Feasibility Study 12.02.21

* After initial working capital is repaid, prudent cash reserves are collected and an initial 4% generation rate discount is offered,

Loudoun County Feasibility Study

BY THE NUMBERS

The Study results show **\$3.7 million start-up cost (which is fully recovered within the first three years of municipal aggregation operations), a CCA could:**

- Provide Loudoun residents and customers an initial **\$35 million in annual rate savings to consumers**, increasing to \$200 million by 2033.
- Inject an **additional \$50.3 million per year into the Loudoun County** and Northern Virginia economy, creating an additional 421 local jobs.
- Provide **\$23 million net revenue in the third year, increasing to \$250 million by 2033**. This money would fund programs benefiting low income households or lower rates for all customers.
- **Reduce greenhouse gas emissions**. The mid-range estimate of these emission reductions is the equivalent of taking 1 million cars off the road.

In broad terms, how would Municipal Aggregation work in VA, i.e., what would the county need to do to set up and manage such a program?

STUDY. Determine what is the load profile you are trying to serve, and what elements do you want to include in your CCA.

VOTE. To establish municipal aggregation Va. Code § 56-589 requires authorization by a majority vote of the relevant governing body.

LICENSE. Then the County applies for an aggregator license to the State Corporations Commission (SCC).

PROCURE. Then it can start procuring electricity (i.e., by issuing RFPs to potential Competitive Service Providers licensed by SCC).* The County has the option of outsourcing management to a third-party operator.



MUNICIPALITY OR
COUNTY TO PASS AN
ORDINANCE



OBTAIN A LICENSE
FROM SCC



LAUNCH A REQUEST
FOR PROPOSALS

* <https://scc.virginia.gov/pages/Competitive-Service-Providers-and-Aggregators>

What are the pros and cons of Municipal Aggregation as compared to existing utility Green Power programs?

MUNICIPAL AGGREGATION	GREEN POWER PROGRAMS
<p>PROS: The County has decision-making ability to:</p> <ul style="list-style-type: none">- Define the amount of RE in the electricity mix- Leverage tens of millions of dollars for community-wide programs including feed-in tariffs- Specify local content and support new green jobs- Offer stable, predictable pricing for electricity supply- Depending on market conditions, save money compared to existing utility rates- Tap into Federal funds (e.g., IRA and IIGA funds)- Can set up CCA as opt-out program (~>80% customer participation)	<p>PROS: easy to sign up, no risk for the County</p>
<p>CONS: start up cost, program risks (e.g., legislative/regulatory, market)</p>	<p>CONS: opt-in only (has low opt-in rate ~<10%), customer pays a price premium (half of cost for administration), the County has no decision-making ability and is reliant on the utility to meet its goals</p>

What are the pros and cons of using power purchase agreements (PPAs) or RECs or other relevant mechanisms as a basis for GHG emission reductions via decarbonizing the energy supply?

PPAs and RECs can be included under a CCA, they are not mutually exclusive.

PPAs are for one-time, one location projects, usually serving one customer, usually commercial accounts not residential. By contrast, CCAs serve a whole community.

RECs denote the RE attribute of 1MW of power. They can be used in CCAs or other programs.

RECs might be used in the early years of a CCA to provide an “on ramp” for new renewables and to cover for delays such as the PJM queue. In general, the goal would be to phase out reliance on RECs and move to actual new RE generation projects as soon as possible. Requirements to that effect can be part of RFPs and bidders can be evaluated on what they can provide and how soon they can phase out reliance on RECs. Language can be inserted into contracts with service providers.

How can CCA accelerate RES?

"Cities, municipalities, and counties utilizes the vehicle of CCA to achieve renewable energy purchasing at scale, which makes a tangible impact on ^{PPAs} accelerating renewable energy development at the local, regional, and State level, by creating more demand for renewable energy."

Alexandria Next Steps

- Conduct a technical study to better understand the County electrical load
- Start discussion among different stakeholders
- Do a deep dive on the Montgomery County CCA efforts so far
- Take advantage of available resources (VCE website & studies, Loudoun County CCA Feasibility Study, others)

Thank you for
your attention!

ANY QUESTIONS?