



Duke Energy Green Source Advantage (GSA) Program – Towards Zero Carbon

Purpose

- The City has been awarded an opportunity to source a significant portion of our energy from solar through the Duke Energy Green Source Advantage Program (GSA) competitive application process

Future Council Action

- City Council action to approve City Manager to execute a service agreement for the Green Source Advantage Program



GSA - WHAT IS IT?

- Duke Energy's Green Source Advantage program (GSA) is a **renewable energy program** for large North Carolina customers who want to **support the development of renewable resources** and lower their carbon emissions.
- The program offers large customers the flexibility of **selecting and negotiating all price terms directly with a solar developer**, including the **purchase of renewable energy certificates generated** by that facility.



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Strategic Energy Action Plan

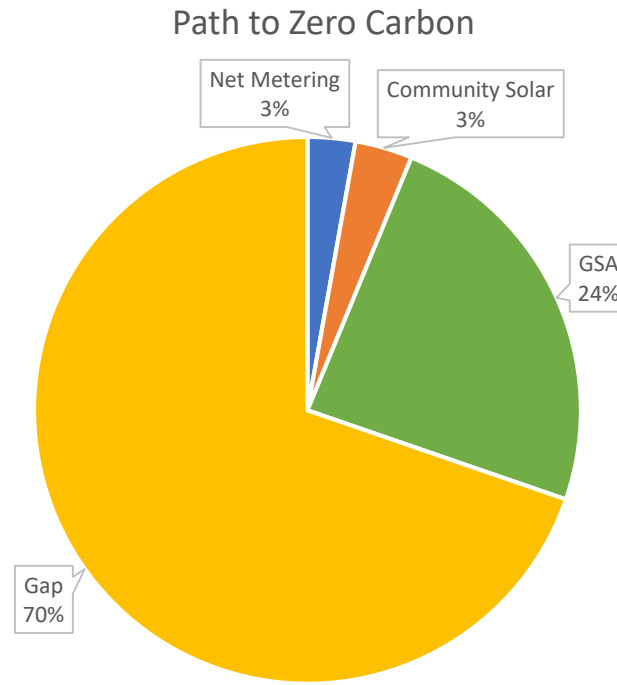


By 2030, we will strive to source 100% of City's energy use in our buildings and fleet from zero carbon sources.

WHY PARTICIPATE?

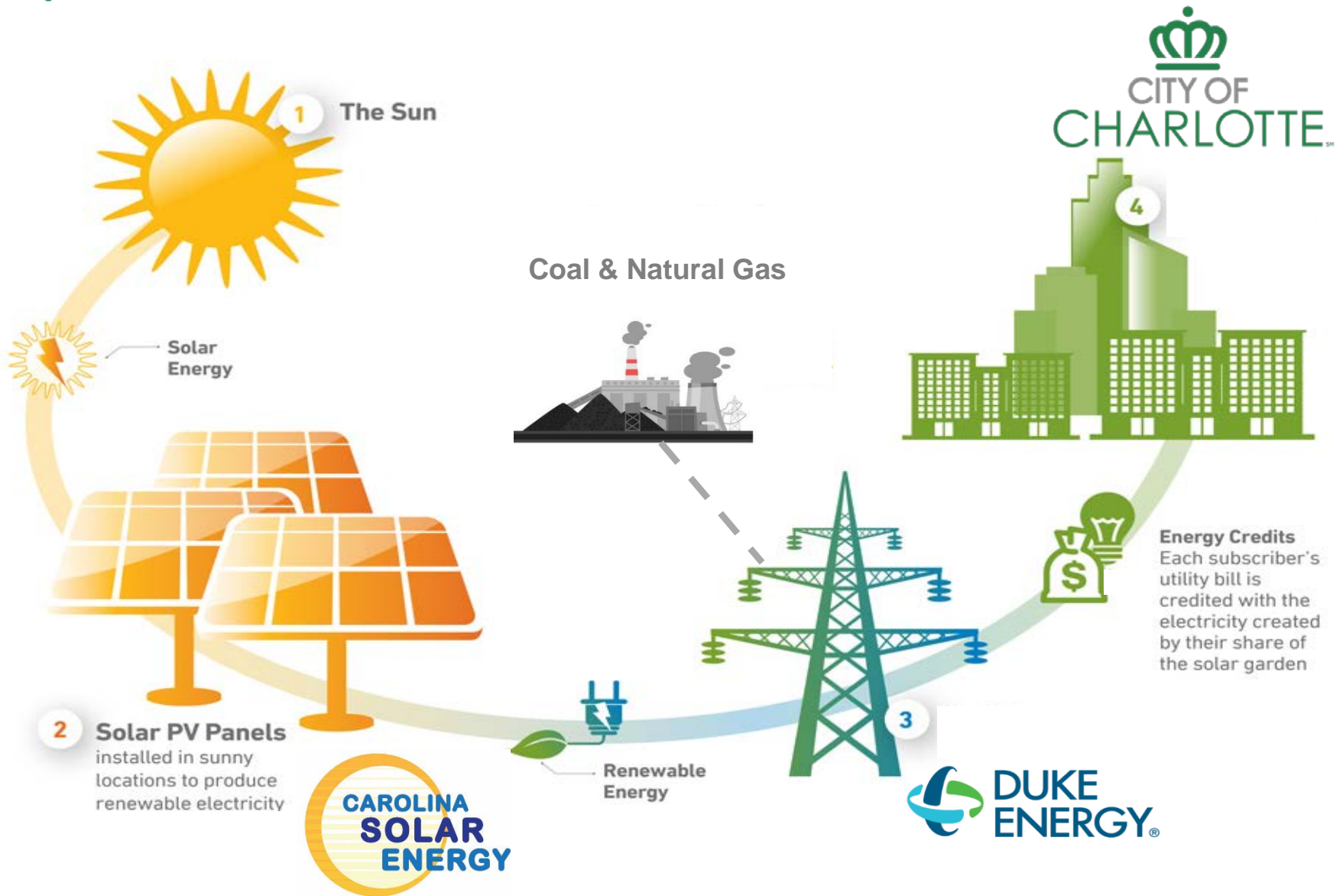
Participation in the GSA Program would:

- ✓ Moves the City 24% of the way to our 2030 zero carbon buildings SEAP goal
- ✓ Exceeds our solar energy goals in the American Cities Climate Challenge





HOW DOES IT WORK?





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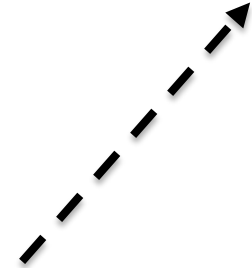
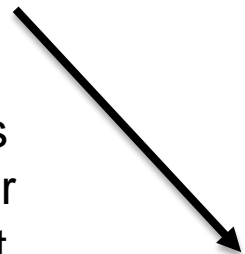
DUKE ENERGY®

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City pays a premium or receives a credit on energy bill for renewable energy



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Duke Energy pays the solar developer for the energy that is being produced on their 35MW solar system in Iredell County



City receives the environmental, economic, and public health benefits of making our regional energy grid greener

WHAT DOES IT COST?

- The term of the GSA Service Agreement is 20 years
 - Years 1-5: ~\$800K annual premium
 - Years 6-10: ~\$125K annual premium
 - Years 11-15: ~\$525K annual savings
 - Years 16-20: ~\$725 annual savings
 - Projected Cumulative Savings: **\$1.5 million**
- Out-year cost/savings values based on modeled projections*



- *City's current annual electricity spend: \$35M*

- **GSA program is best available option to make significant strides toward 2030 SEAP goal**
- **Specifically, the City's GSA project:**
 - Generates projected \$1.5M savings over the 20-year term
 - Moves City 24% closer to zero carbon energy
 - Places Charlotte as the leader in municipal renewable energy procurement in NC
 - Supports public health benefits for the region
 - ~\$ 20M of total avoided healthcare costs
 - Produces enough electricity to power ~10,000 homes annually
 - Equates to removing ~12,000 passenger vehicles from the road annually

- September 27: Notified Carolina Solar Energy that they were our preferred solar developer to move forward with a GSA application
- October 1: GSA application submitted to Duke Energy
- October 3: Notified we were accepted into the program, and are awaiting finalized costs
- October 28 Strategy Session: GSA presentation to City Council
- TBD: City Council action to approve City Manager to execute service agreement for GSA
- Calendar Year 2021: Solar farm will be operational



QUESTIONS?