



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

- 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.

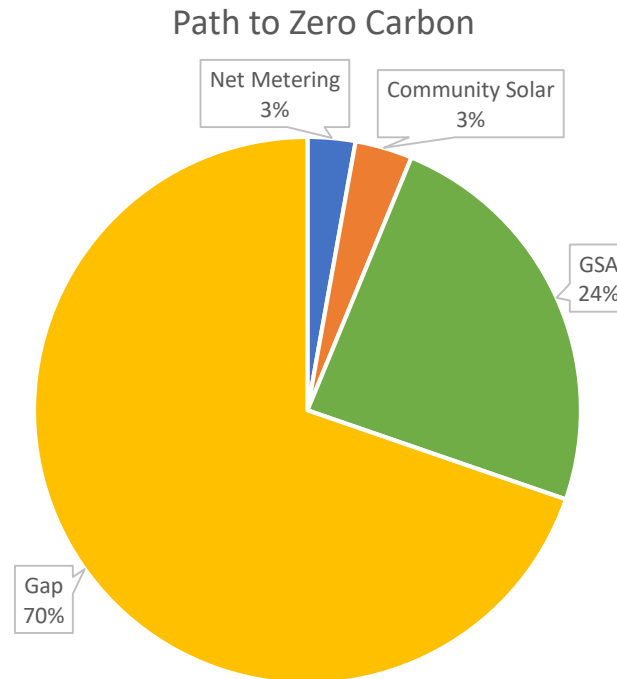


By 2030, we will **strive to source 100% of City's energy use in our buildings and fleet from zero carbon sources.**

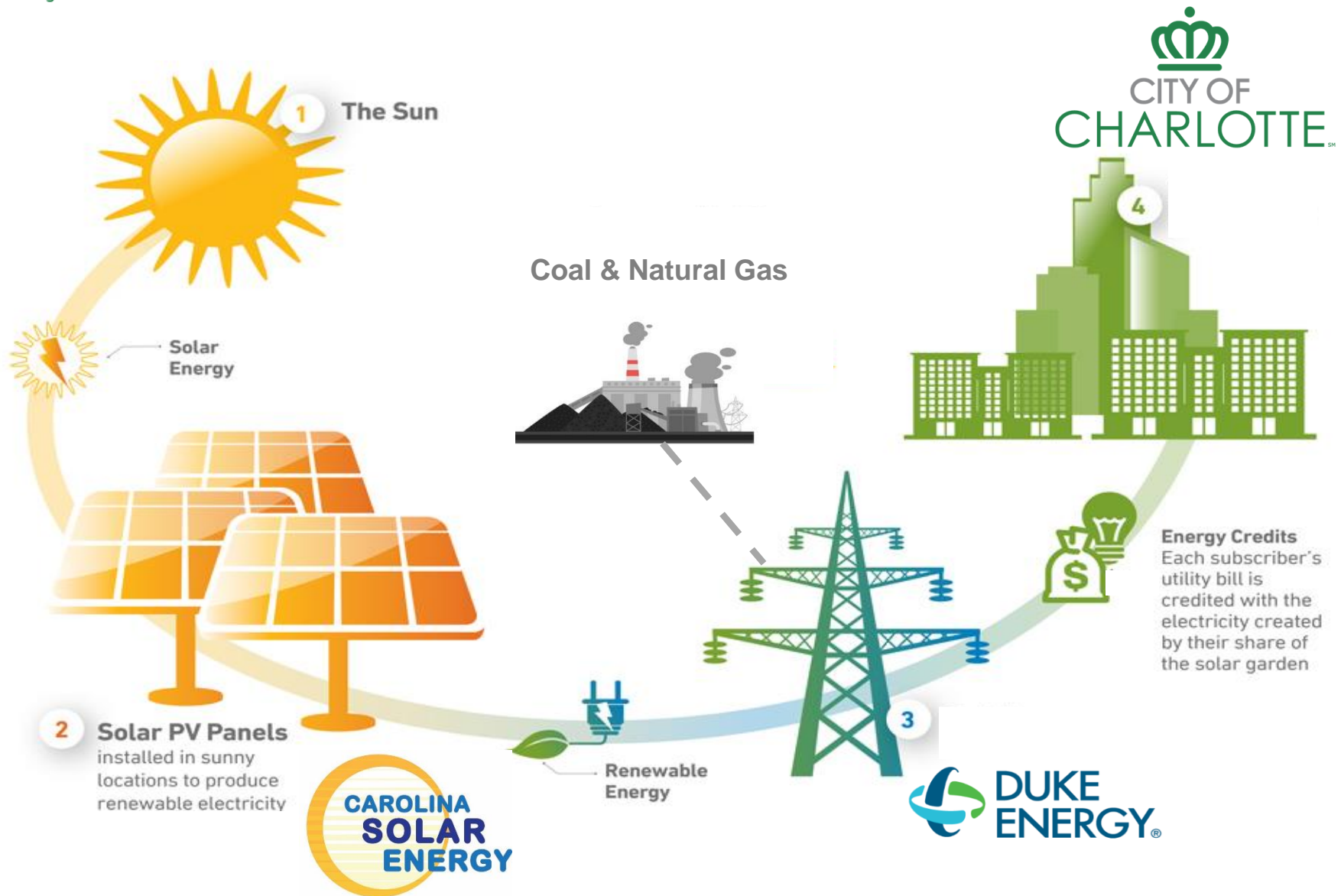
WHY PARTICIPATE?

Participation in the GSA Program:

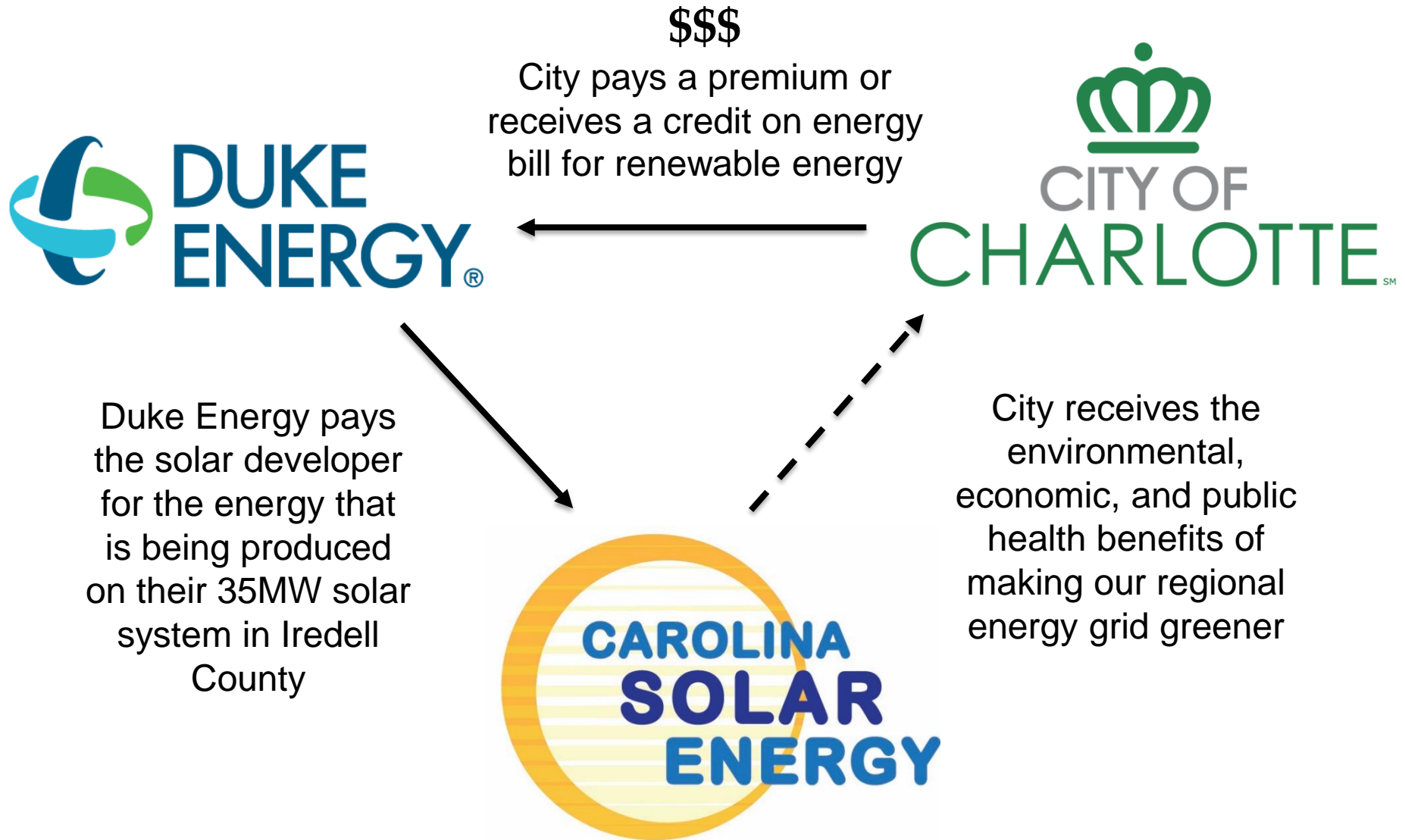
- ✓ Moves the City 24% of the way to our 2030 zero carbon buildings SEAP goal
- ✓ Exceeds our solar energy goals in the American Cities Climate Challenge



HOW DOES IT WORK?



HOW DOES IT WORK?



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

MILESTONES AND NEXT STEPS

- 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 Action Review: GSA presentation to City Council
- TBD: City Council action to approve City Manager to execute service agreement for GSA
- Calendar Year 2021: Solar farm operational



QUESTIONS?