

# Buncombe County 5 MW Solar Farm

AT THE RETIRED  
COUNTY LANDFILL IN  
WOODFIN, NC



# Question:

What if Buncombe County could take an underutilized public asset to create a project that would:

- 1) Attract a \$7 million+ investment into the community.
- 2) Generate enough clean, renewable energy to power 650 homes.
- 3) Create \$50,000 or more of recurring annual income for local taxpayers.

And this project could be developed with modest upfront investment from taxpayers.



# First solar farm in western North Carolina

500 KW project developed on a retired landfill in Canton, NC in 2009



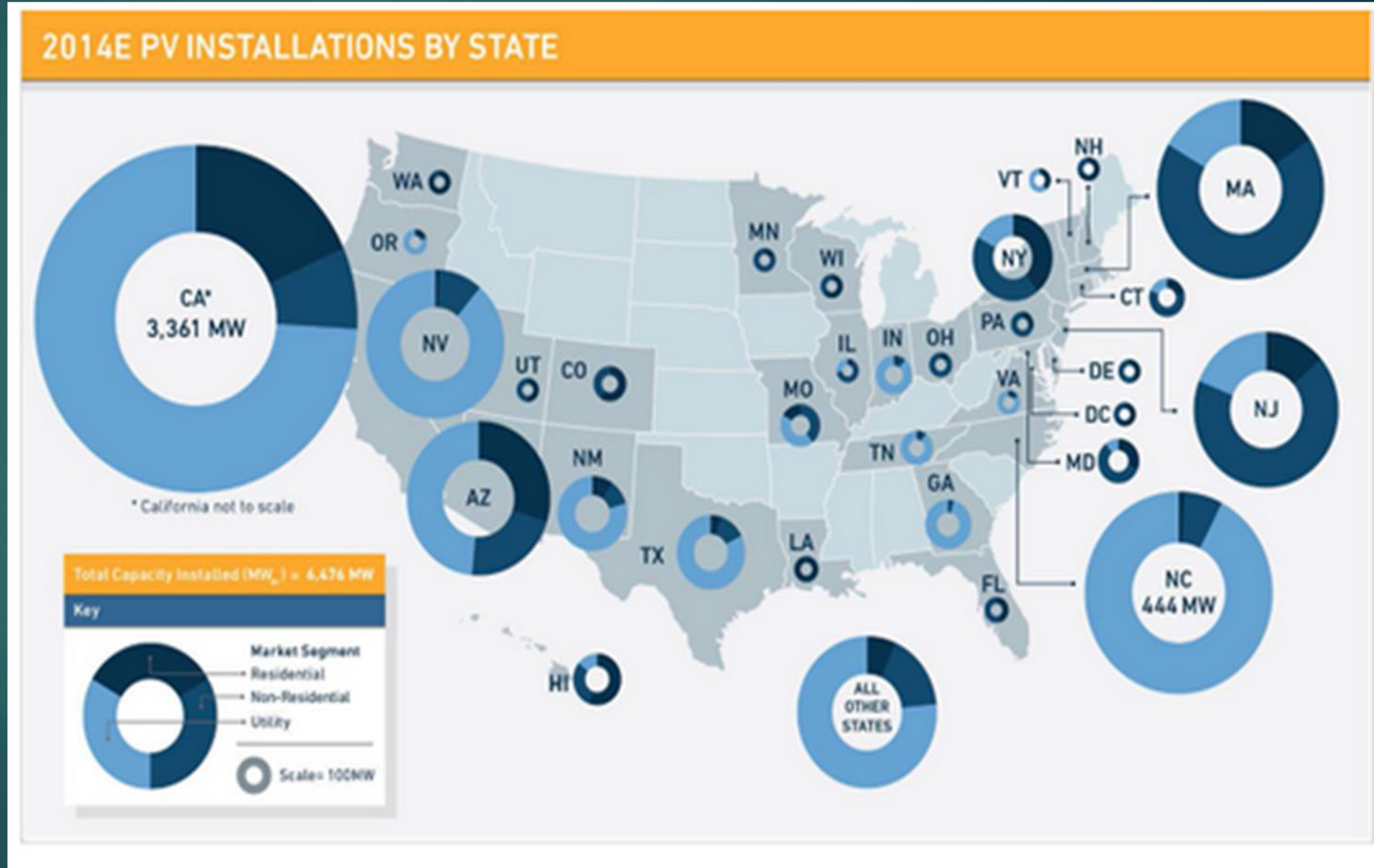


2.5 MW solar  
farm  
Henderson  
County

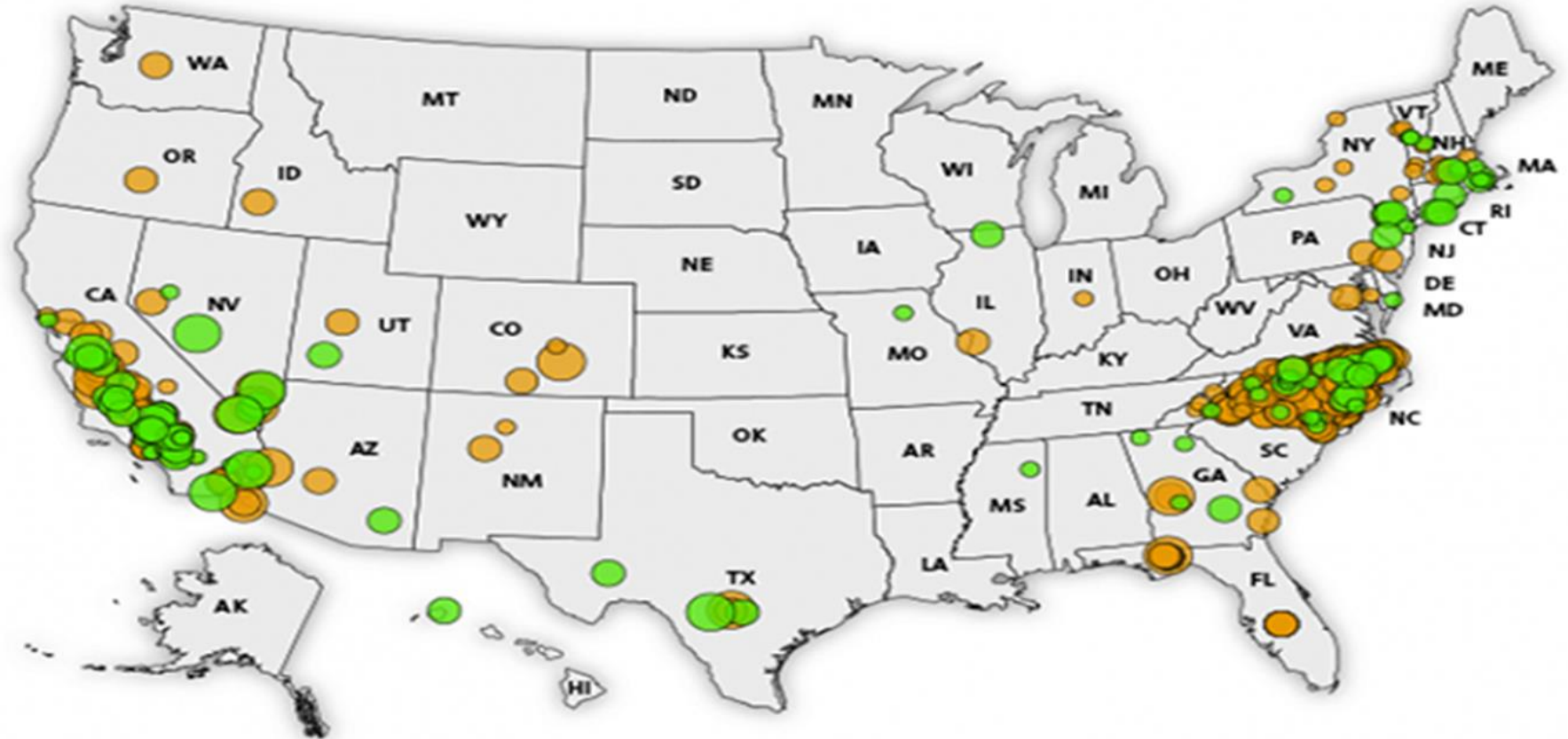




North Carolina: one of the top 5 solar markets in the US



## US planned utility-scale solar projects in advanced development or under construction



### Development status

- Advanced development
- Construction begun

### Planned capacity (MW)

- 0 - 5
- 6 - 100
- 101 - 1,250

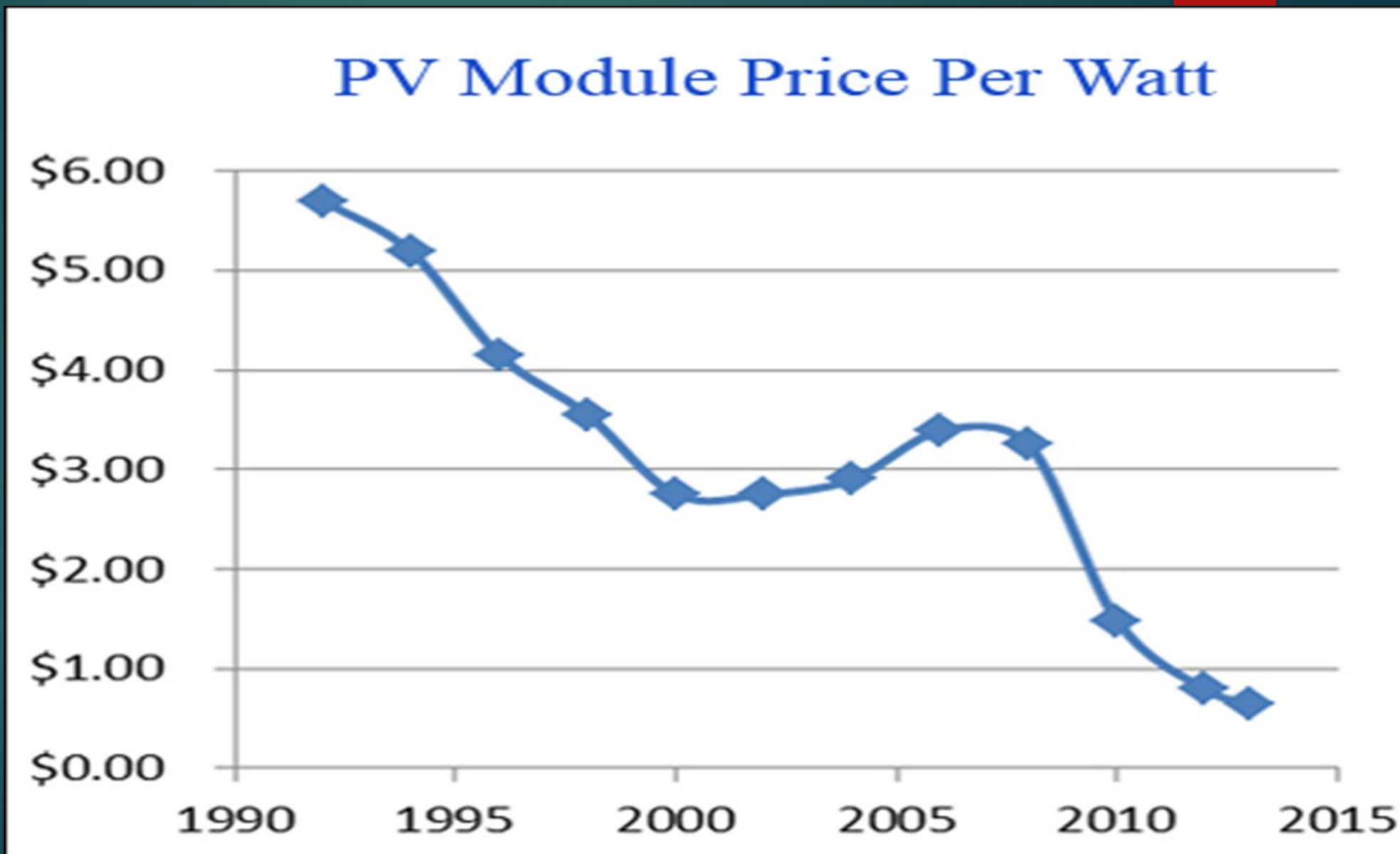
As of Feb. 19, 2015.  
Source: SNL Financial  
Map credit: WhitVarner



solar +  
sheep.



The costs of solar have declined by 75% in over the past 7 years.





# Buncombe County retired landfill.





Landfill site has little economic value for other purposes.



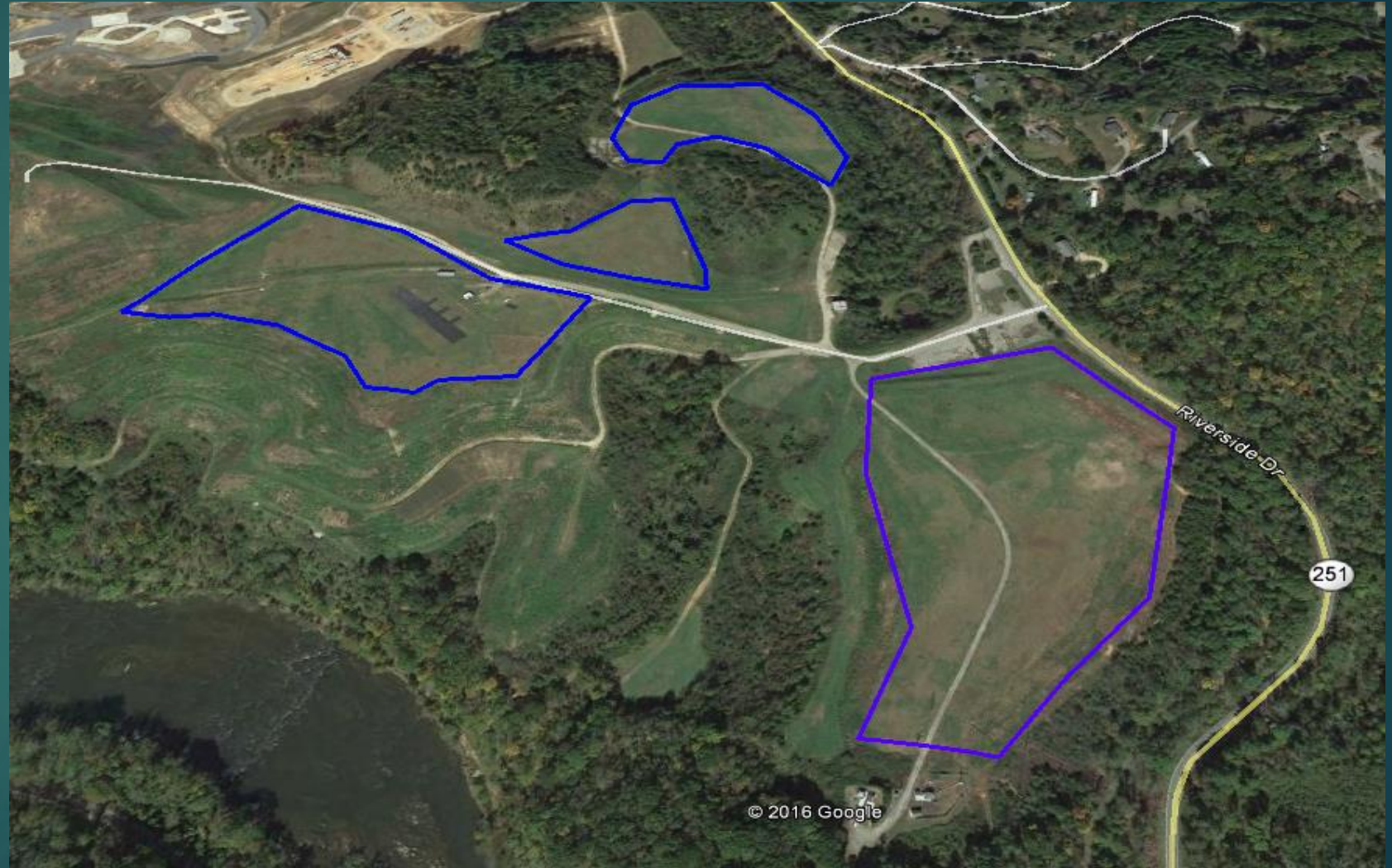






4 Key ingredients for solar farms:

- 1) Willing landowner
- 2) 10+ acres of relatively flat, affordable land
- 3) Access to 3 phase power
- 4) Close proximity to utility substation



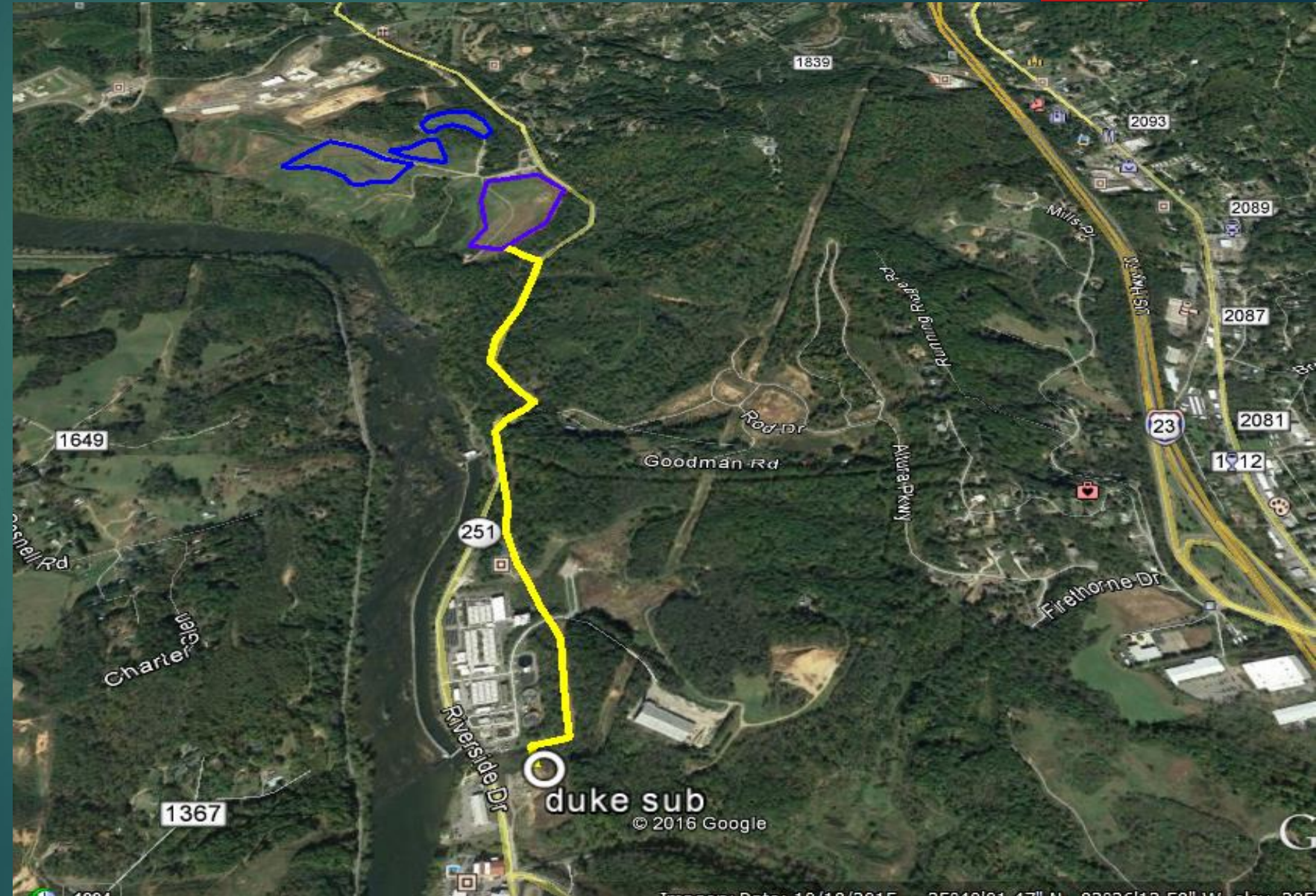
*Blue highlighted area: approximately 25 acres of relatively flat, buildable land*



Duke  
Energy  
3 phase  
distribution  
lines on  
site



Duke substation  
1.15 miles  
south of  
site



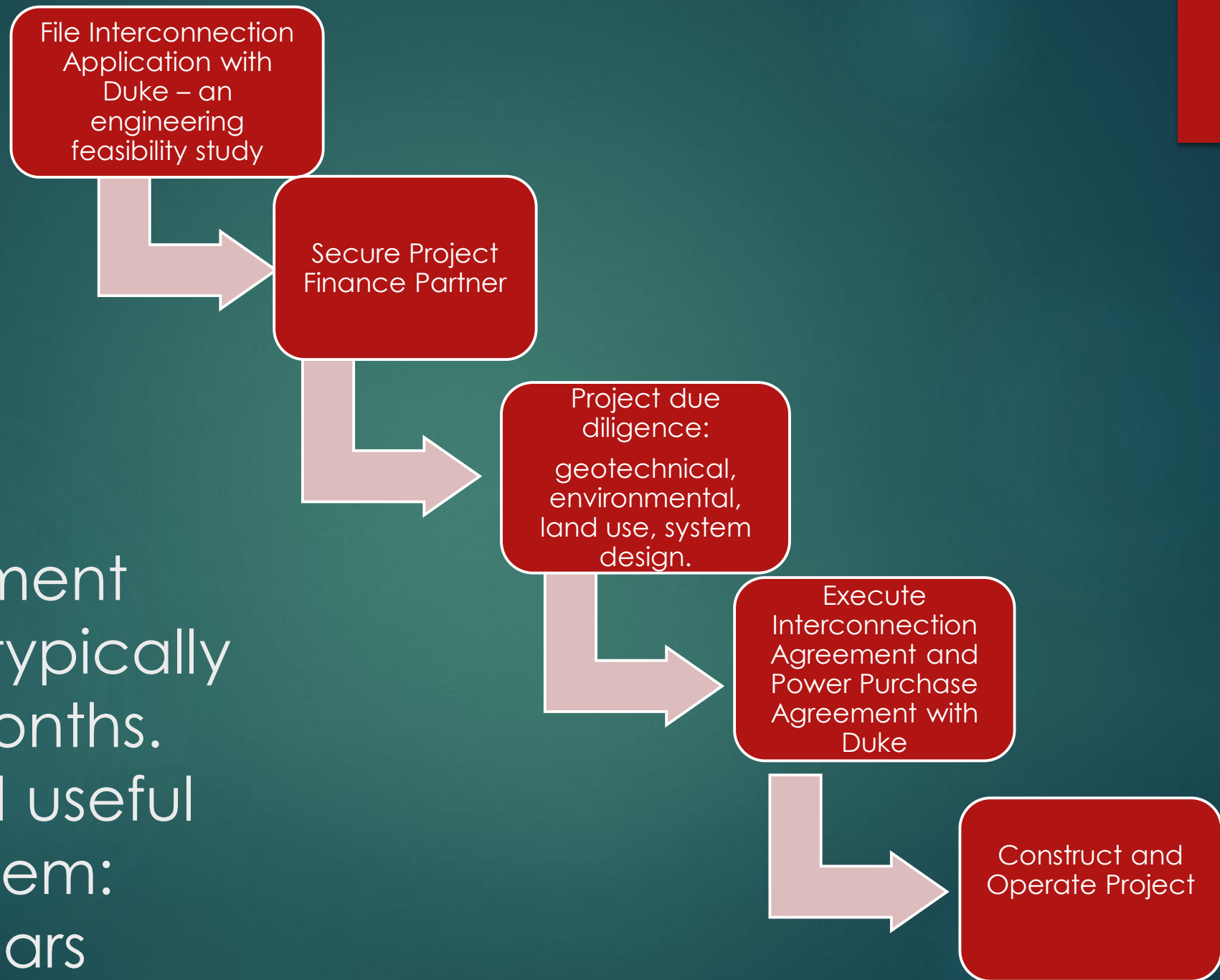


# Duke Energy Elk Mountain 115 KV substation



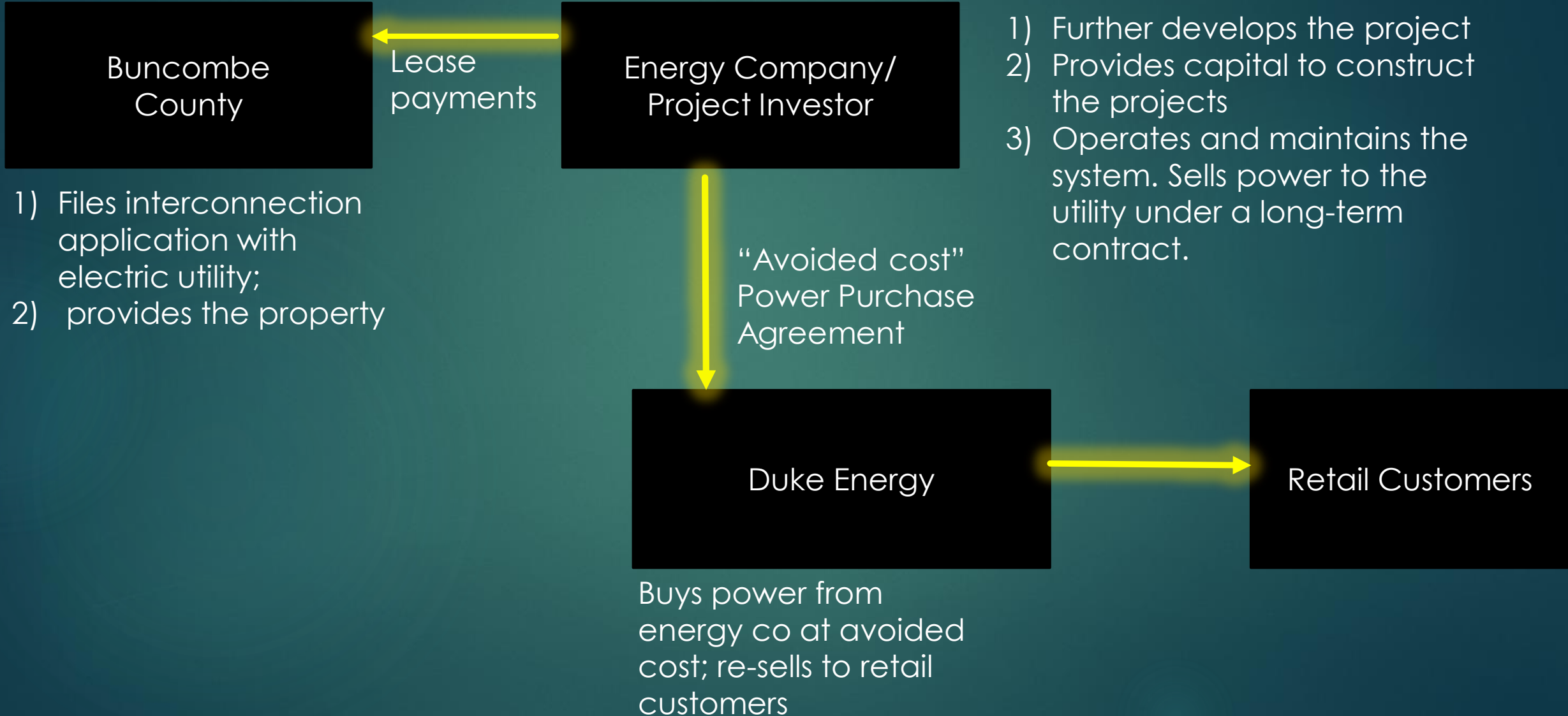


Project development process: typically 12 - 18 months.  
Expected useful life of system: 30 - 40 years





# Solar farm business model





## Financial Benefits for Buncombe Taxpayers:

- 1) Lease payments: est. \$1,250 per acre per year, approx. \$30,000 annual payment for 25 acres.
- 2) Property taxes – estimate \$20,000 per year to Buncombe and Woodfin.
- 3) Potential development fee, which includes reimbursement of interconnection costs.
- 4) Reduced mowing costs.

## Clean Energy Benefits for Buncombe County

- 1) Project will generate approx. 7,000,000 kwh of solar power per year.
- 2) Equivalent to powering 650 homes with solar
- 3) Will reduce Buncombe County's carbon footprint by 18%.



# Recommended next steps:

- ▶ 1) File Project Interconnection: County invests \$27,000 to file the Interconnection Application for the project. This includes \$25,000 for the interconnection fee to Duke Energy and \$2,000 for engineer to file the application and stamp the preliminary plans. If the project is deemed to be not viable, most of the application fee may be refundable. The interconnection study process is expected to take at least six to nine months.
- ▶ 2) County approves an additional \$15,000 for further project due diligence (geotechnical and environmental reports). Total project budget: \$42,000..
- ▶ 3) County will solicit proposals from the energy industry for the lease of the landfill site for a solar project. Interested parties should: A) Provide a development fee which, at minimum, reimburses the county for its investments in the project, B) Provide all further capital necessary to develop and construct the project and C) Have all necessary experience and qualifications to successfully implement and operate the project.
- ▶ *Transparency and disclosure: Commission Chair Brownie Newman has an ongoing ownership or financial self-interest in FLS Energy/ Cypress Creek Renewables and Headwaters Solar. None of these companies will participate in the project.*