

# Which Solar Costs Less?

**A surprising comparison of utility-scale,  
community, and rooftop solar**

**John Farrell, Co-Director, September 14, 2023**

**Fact: *Utilities*  
*Misrepresent* the  
Cost of Solar to  
Serve Their Interests**

**Fact:** *Solar Costs are Similar* Whether it's on Rooftops, Community Arrays, or Utility-Scale

# BENEFITS OF LOCAL SOLAR FOR THE CLEAN ENERGY TRANSITION



**The least-cost path** to a carbon-free future, with power prices comparable to utility-scale solar and providing better overall value.



**Opening the clean energy economy to all** — ensuring the freedom to participate in generating clean power and saving money, with access for households living on low incomes.



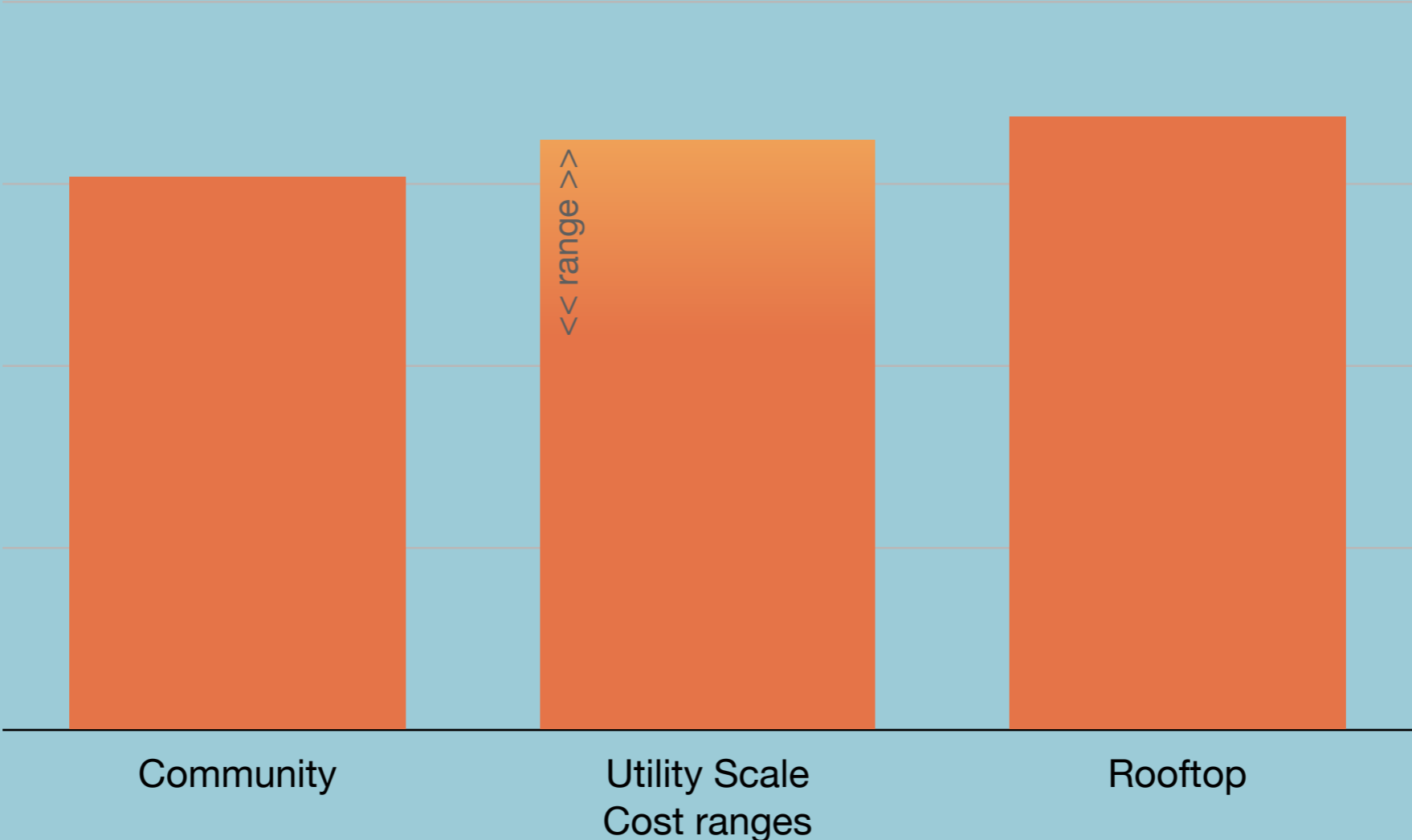
**Delivering better electricity reliability** through dispersed generation, and with battery storage integration that can keep electricity on even if power lines go down.



**Up to 30x more jobs** than utility-scale solar, with jobs and the economic benefits more widely dispersed throughout the state.

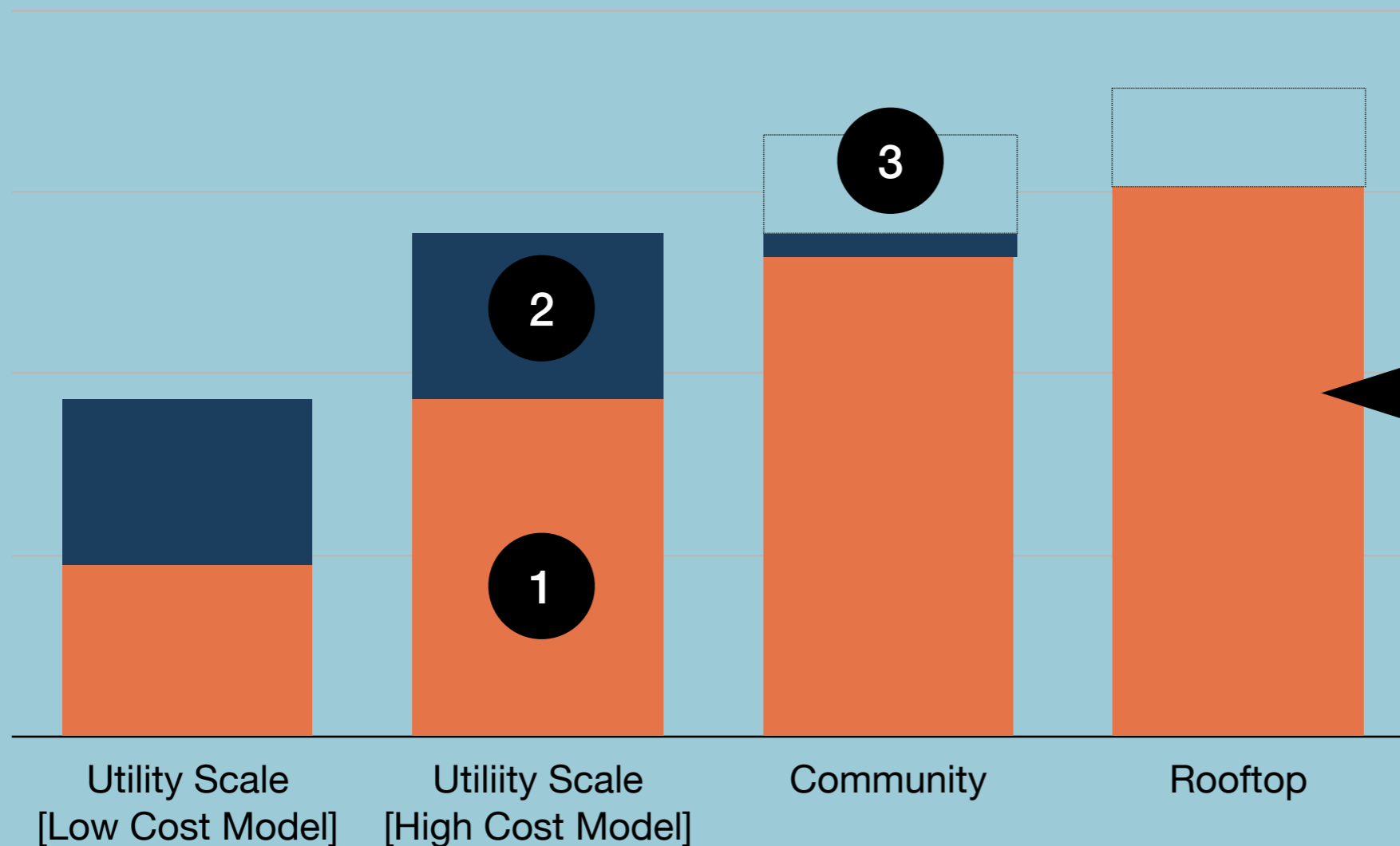
# Actual Solar Costs & Benefits

## Cost of Solar by Type



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## Cost of Solar by Type



When we properly account for:

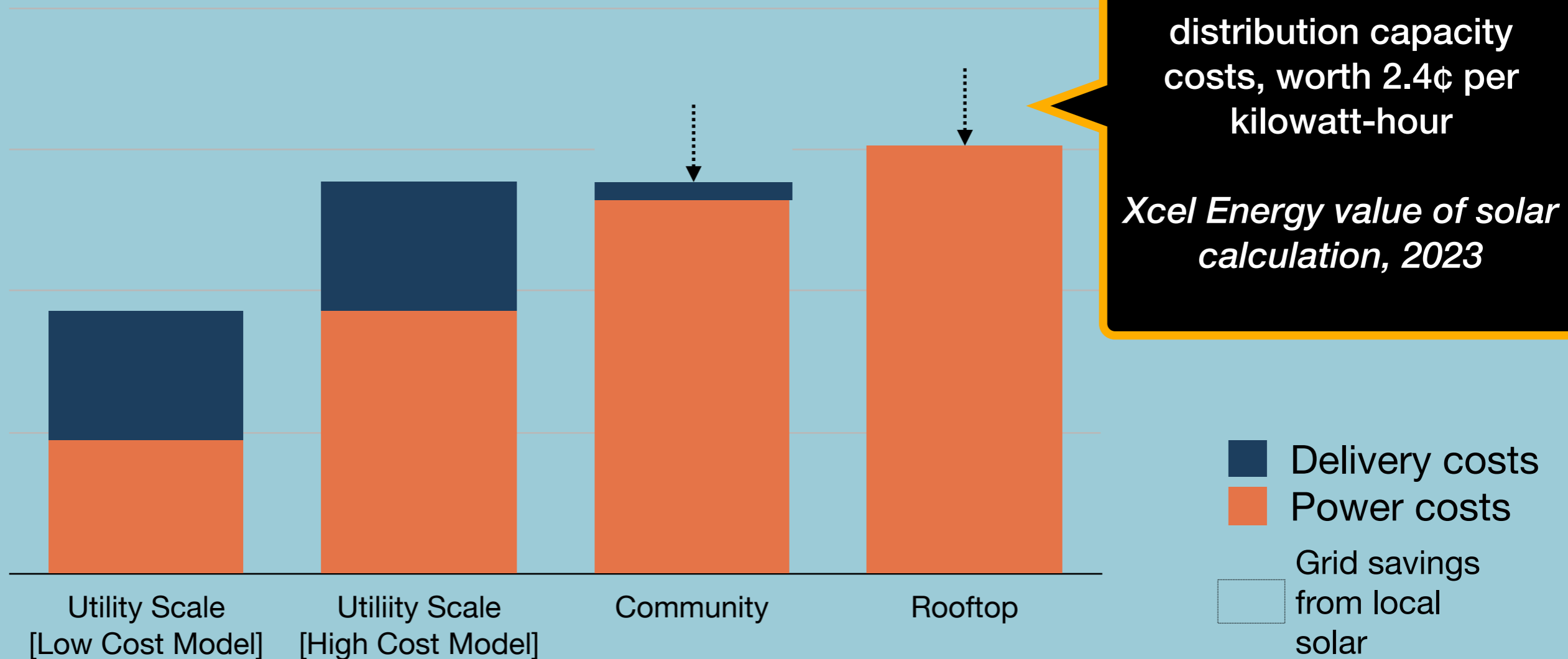
- 1) Power production (including utility earnings)
- 2) Delivery, and
- 3) Grid savings

The cost of electricity from solar projects of all sizes are very similar



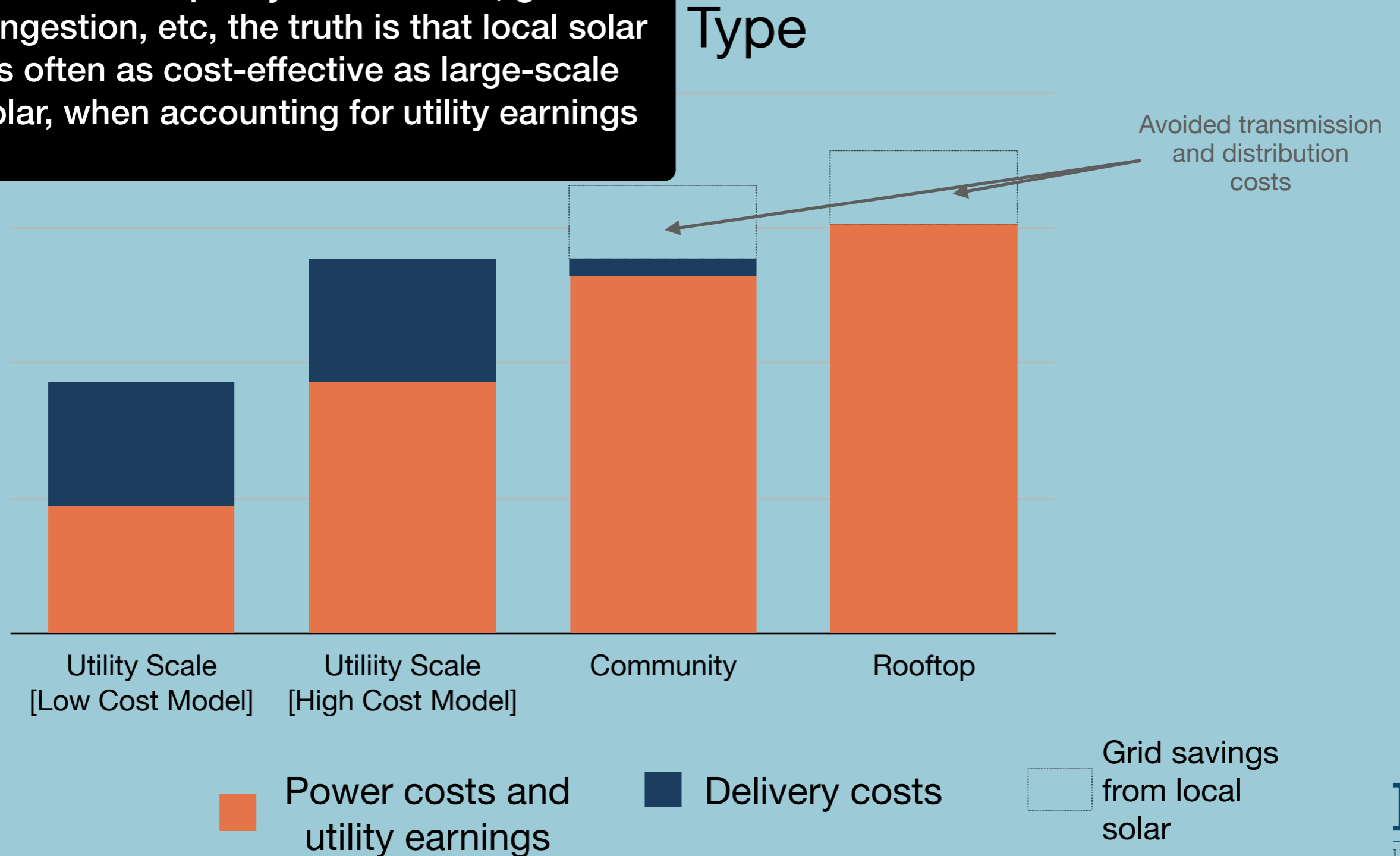
# Actual Solar Costs & Benefits

## Cost of Solar by Type



# Actual Solar Costs & Benefits

While costs can vary by location, regulatory and state policy environment, grid congestion, etc, the truth is that local solar is often as cost-effective as large-scale solar, when accounting for utility earnings

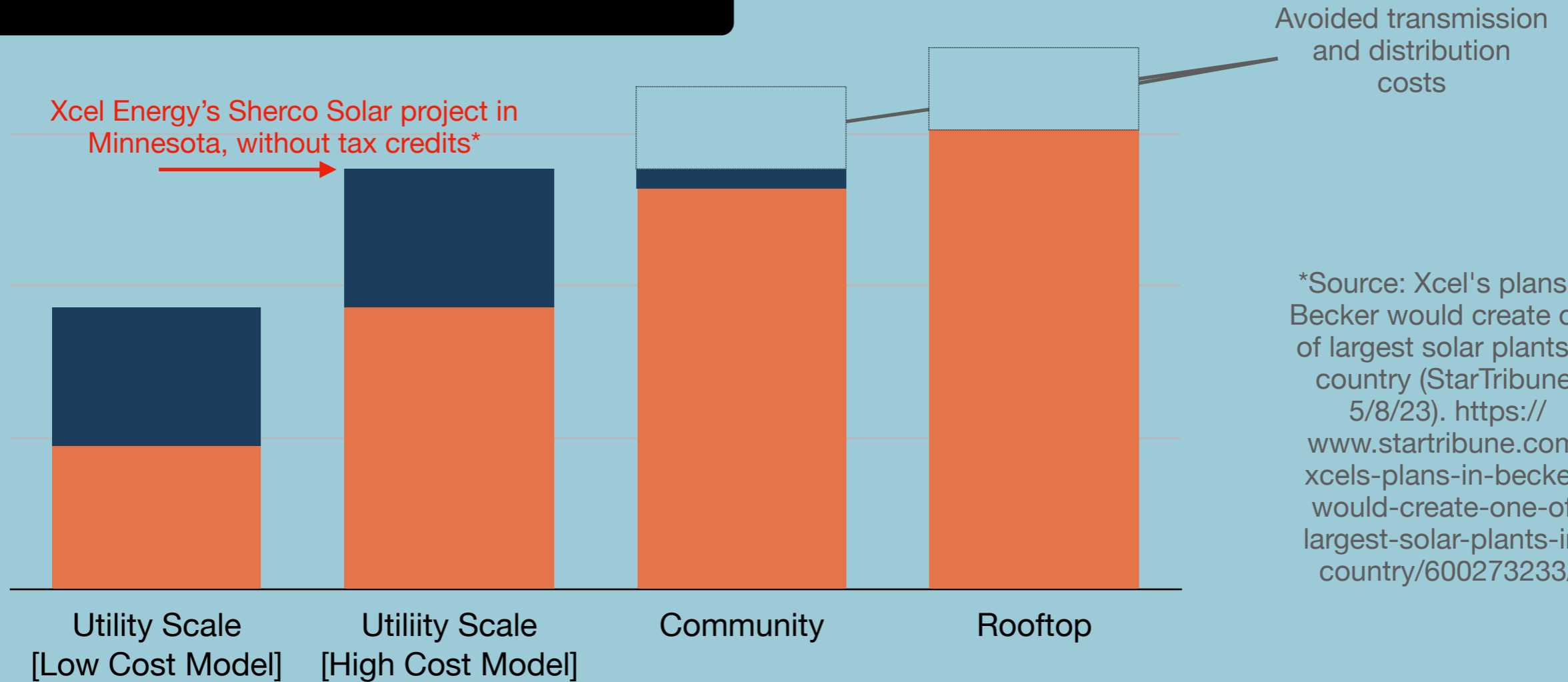




# Actual Solar Costs & Benefits

With one utility-scale solar project in Minnesota, costs (before tax credits) are basically the same as local solar

Project Type

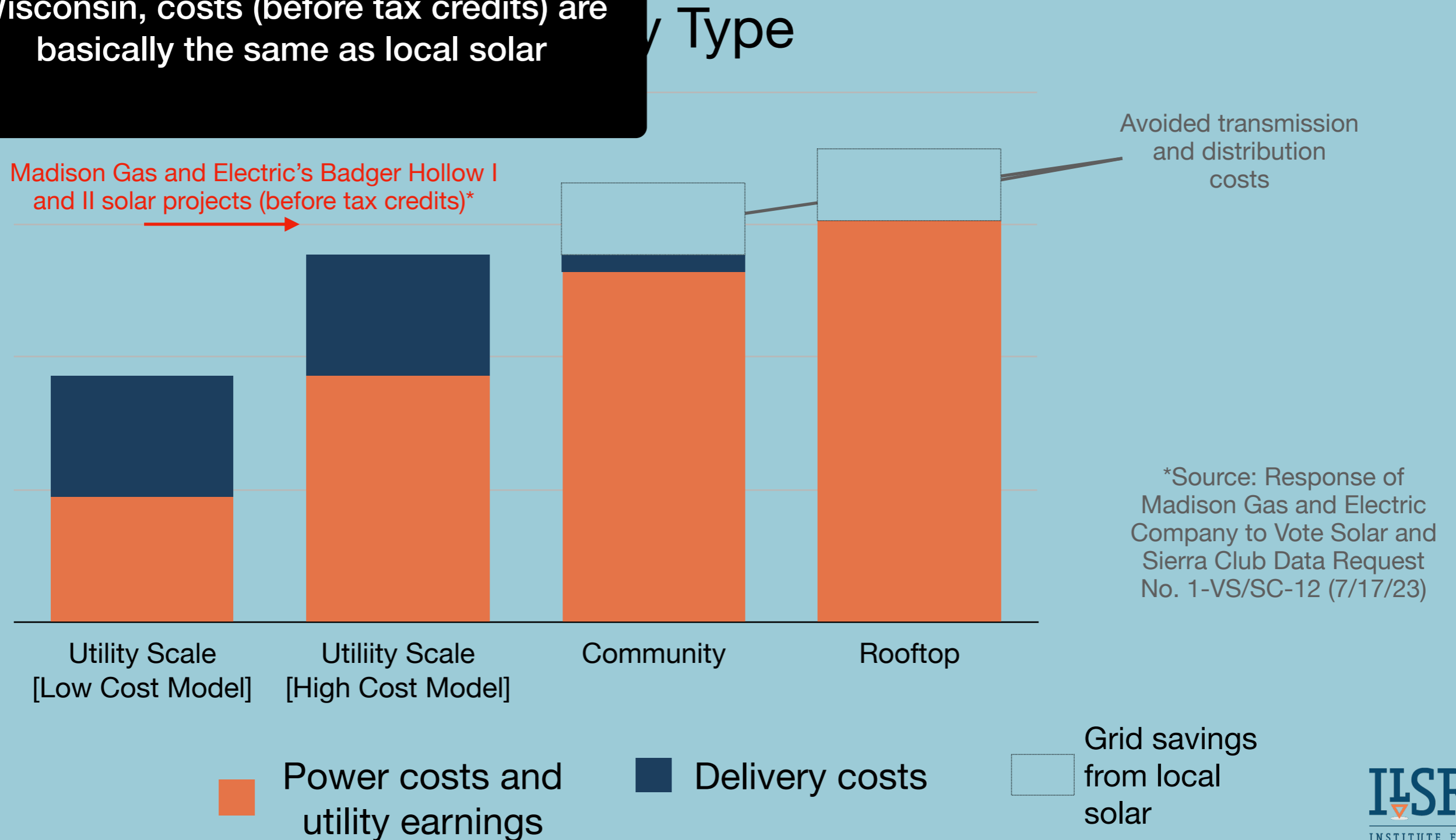


\*Source: Xcel's plans in Becker would create one of largest solar plants in country (StarTribune, 5/8/23). <https://www.startribune.com/xcel-plans-in-becker-would-create-one-of-largest-solar-plants-in-country/600273233/>



# Actual Solar Costs & Benefits

With several utility-scale solar projects in Wisconsin, costs (before tax credits) are basically the same as local solar



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# How Much Does Utility-Owned Solar Cost?

# What Utilities Say

Costs to produce  
electricity

+

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= Electric bills

# What Utilities Say

Co

But they leave



things out

+

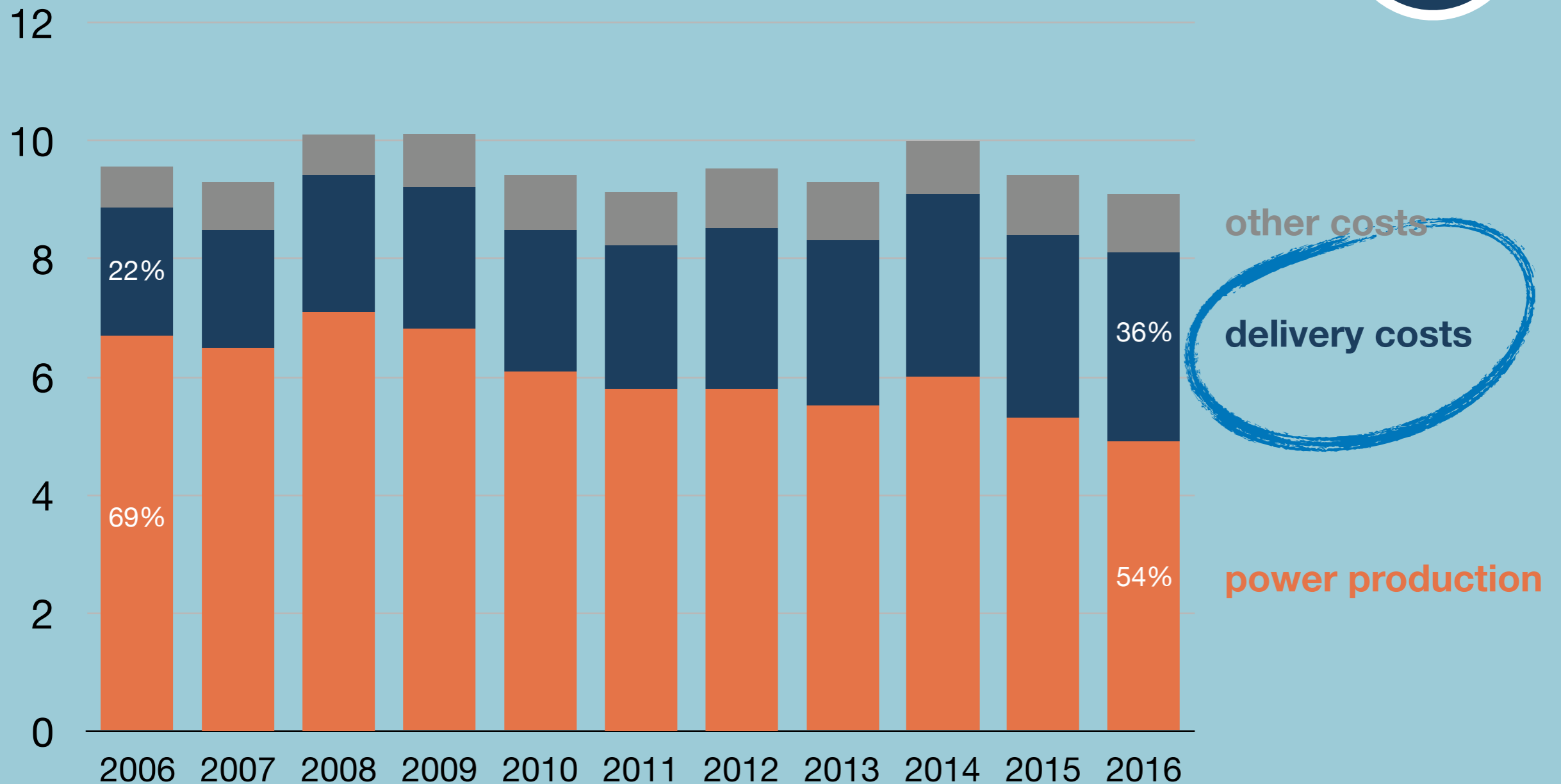
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# Utilities Don't Account for Delivery Costs

1

Federal Energy Regulatory Commission-regulated utility spending  
cents per kilowatt-hour (\$2016)



Source: Energy Information Administration, <https://www.eia.gov/todayinenergy/detail.php?id=32812>

# Utilities Don't Account for Earnings

2



Xcel Energy Inc

NASDAQ: XEL

Shareholder earnings!

Market Summary > Xcel Energy Inc

69.10 USD

+22.71 (48.95%) ↑ past 5 years

Price (XEL)  Dividends

Draw trendlines

Zoom on



**D** = shareholder dividends



# Actual Electricity Costs

Costs to produce and  
deliver electricity

**+** Utility earnings

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**=** Electric bills

**Fact: *Solar Costs are Similar* Whether it's on Rooftops, Community Arrays, or Utility-Scale**

Plus, local solar has a few more benefits!

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