



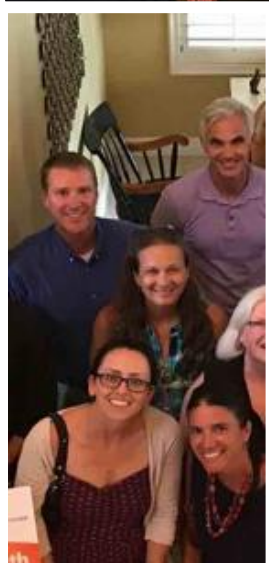
SOLAR UNITED NEIGHBORS

Presentation to ASU Sustainable Cities Network

9/21/21

Bret Fanshaw, Arizona Program Director





We're a community of people building a new energy system with rooftop solar at the cornerstone. We help people go solar, join together, and fight for their energy rights.



How we got started



Started in
2007 and it
wasn't easy!

Mount Pleasant Solar Cooperative



SUN National Impact

Since 2007:

- 300 co-ops
- 6,127 solar households
- 50.5 MW installed/contracted
- \$131M invested
- \$212M 25-year energy savings
- 1.5B lbs CO2 offset (25-year)
- 871 solar jobs created



SUN in Arizona

Since 2019:

- 8 co-ops
- 235 solar households
- 1.7 MW installed/contracted
- \$5.2M invested
- \$7.3M 25-year energy savings
- 69M lbs CO2 offset (25-year)
- 33 solar jobs created



Arizona Solar Co-ops

East Valley 2019

Phoenix 2020

Tucson 2020

Portal/Rodeo 2020

South Mountain 2020

Northern AZ 2021

Phoenix 2021

Scottsdale 2021

Tucson 2021 (coming soon!)



MONTH 1 THRU 2

1 LEARN

about the solar co-op

Attend an info session, visit our website

2 SIGN UP

online to participate in the solar co-op

There is a sign-up deadline usually in month 5 or 6

3 GROW THE SOLAR CO-OP

tell your friends and neighbors!

MONTH 3

4 SELECT

an installer once the solar co-op has 30 participants

Solar United Neighbors:

- Issues a competitive RFP on behalf of the solar co-op – open to all installers!
- Review bids, call references and check licensing, equipment and warranties

Solar co-op participants:

- come together to review bids, select a single installer

MONTH 4 THRU 8

★ SIGN UP DEADLINE

Last chance to join the solar co-op

5 SCHEDULE

Installer site visit, receive customized proposal based on solar co-op pricing

6 SIGN A CONTRACT with the installer

7 INSTALL solar system

8 PARTY!

Meet your fellow solar neighbors and celebrate your successes

Who picks the installer?

Co-op members!

Co-op members specific installer criteria including:

- Price
- Equipment quality
- Warranties
- Experience
- Are a local company

HOW SOLAR WORKS



1

**Solar
Array**

2

**Solar
Inverter**

3

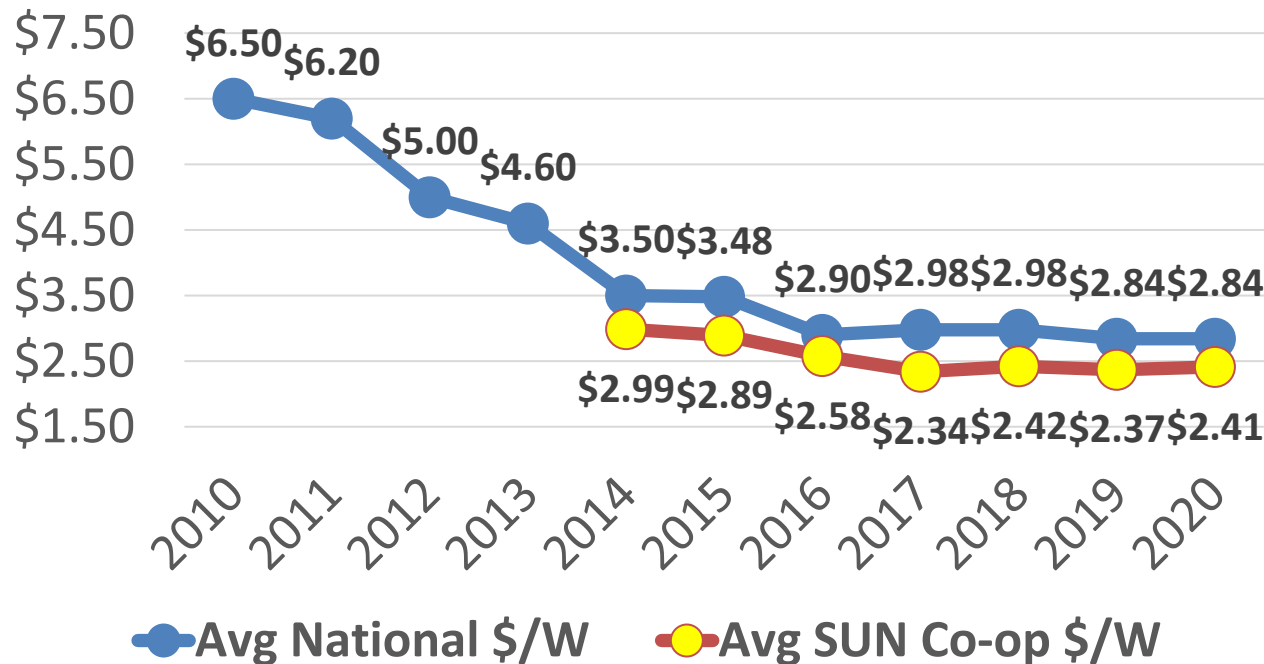
**Electrical
Panel**

4

**Utility
Meter**

Solar is increasingly affordable

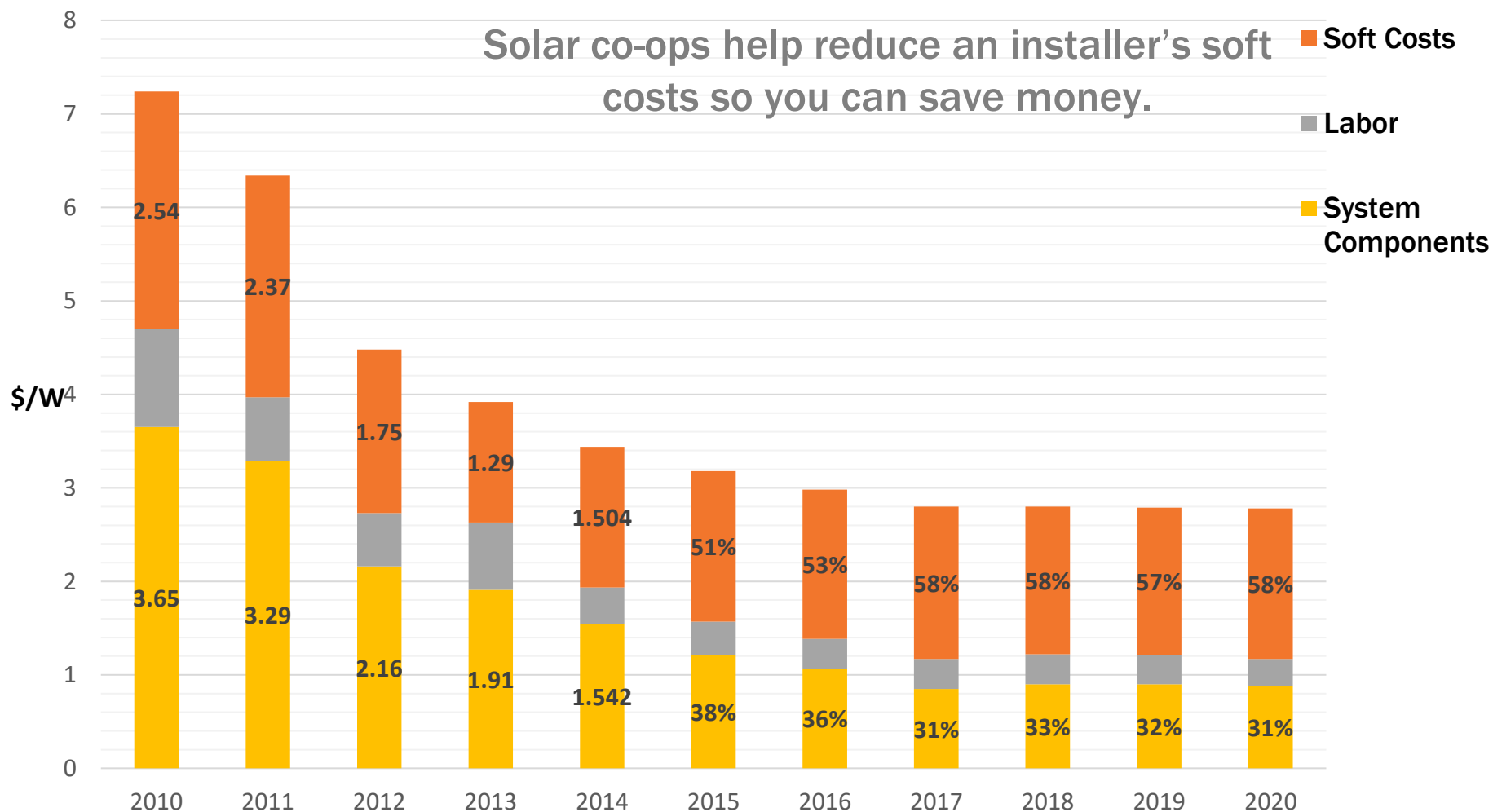
Average National & Average SUN Price Per Watt
(2014 – 2020)



Sources: SEIA/Wood Mackenzie Power & Renewables' "U.S. Solar Market Insight" reports & SUN metrics

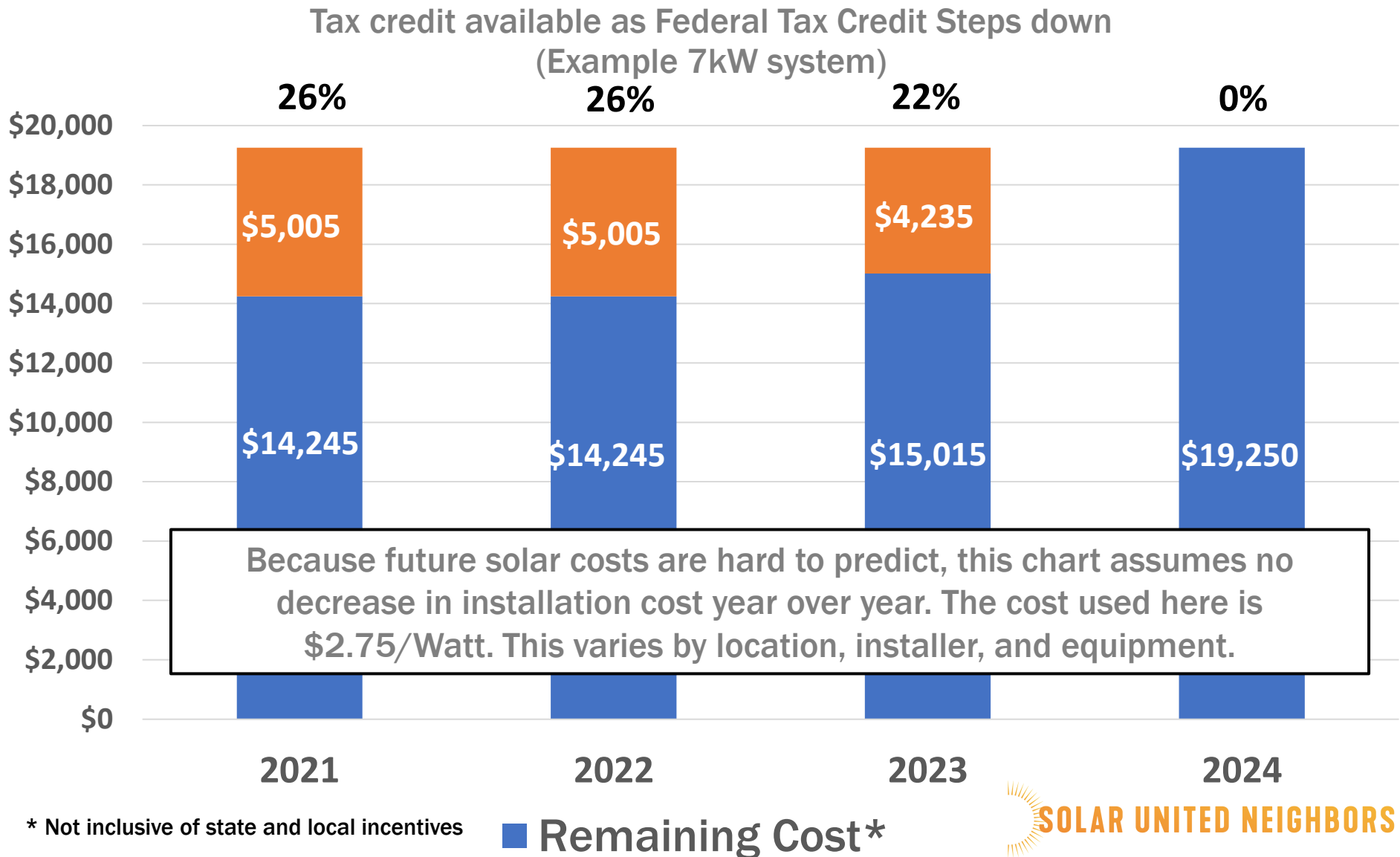
- Costs have fallen ~23% since 2014
- Average cost of 5kW system in 2014: \$17,500*
- Average cost of 5kW system in 2014 SUN co-op: \$14,950*
- Average cost of 5kW system in 2020: \$14,200*
- Average cost of 5kW system in 2020 SUN co-op: \$12,050*
- **gross cost before incentives

Breaking down the cost of solar



Sources: NREL's "Quarterly Solar Industry Updates" & SEIA/Wood Mackenzie Power & Renewables' "U.S. Solar Market Insight" reports

Federal tax credit is decreasing



Example Pricing

SAMPLE CASH PURCHASE: Arizona Public Service (APS)

EXAMPLE PRICING ONLY. ACTUAL SYSTEM SIZE WILL VARY.	4kW	8kW
Average AZ solar pricing (\$2.75/Watt)	\$11,000	\$22,000
26% federal income tax credit	-\$2,860	-\$5,720
25% Arizona state tax credit (up to \$1,000)	-\$1,000	-\$1,000
Net cost	\$7,140	\$15,280
Estimated year 1 electricity savings	\$559-\$762	\$1.2K-\$1.4K
Estimated year 10 savings (cumulative)	\$5.9K-\$8K	\$12.4K-\$14.3K
Estimated lifetime savings (25 years)	\$16K-\$21.9K	\$33.8K-\$38.9K
Net profit	\$8.9K-\$14.8K	\$18.5K-\$23.6K



Example: Northern AZ Solar Co-op



Co-op Launch: January 14, 2021



Community partners:

- City of Flagstaff
- City of Sedona
- Coconino County

Initial goal: 100 sign ups



Quotes from our partners

*“The City of Flagstaff is excited to partner with and welcome Solar United Neighbors to our region,” said **Flagstaff Mayor Paul Deasy**. “We are confident that the Northern Arizona Solar Co-op will help make the process of owning a rooftop solar system more accessible and affordable for interested homeowners and businesses in our community.”*

*“The city of Sedona is committed to both modeling sustainable practices and helping our residents to make sustainable choices in their homes and businesses,” said **McKenzie Jones, sustainability coordinator for the City of Sedona**. “By joining the solar co-op and installing solar panels, Sedona residents can help to reduce harmful emissions, increase energy security, and save money.”*

*“Coconino County is thrilled to be a partner in this effort,” said **Amanda Acheson, sustainability manager for Coconino County**. “The program supports our County’s commitment to being good stewards of the environment while also providing a resource for our community members.”*



Earned media



New co-op hopes to bring cheaper solar installation to Flagstaff, Coconino County

SHARE THIS f t e b 1 comment

New co-op hopes to bring cheaper solar installation to Flagstaff, Coconino County

Adrian Skabelund Mar 9, 2021 Updated Apr 13, 2021 1

Subscribe: 6mos. only \$1



Advantech
SUBFLOOR ADHESIVE

FASY APPLICATION

95°F AQI 100 9:44 AM 9/10/2021

Community outreach

Traditional media

Social media

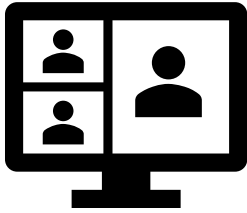
Newsletters

Community groups

Yard signs



Solar 101 Webinars

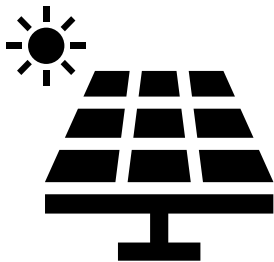


Four webinars held:

- Jan 25
- Feb 9
- Feb 25
- March 24



83 total attendees



Solar technology

Solar economics

Solar co-ops

Installer selection: Rooftop Solar

SUN issued public RFP to installers on 2/12 with 87 co-op members

6 bids received

16 co-op members on selection committee

Rooftop Solar selected by co-op committee members



Sign up deadline: March 31, 2021



CLOSED TO NEW MEMBERS

Northern Arizona Solar Co-op

Homeowners and business in and around the communities of Flagstaff and Sedona are encouraged to join the co-op

227 members of 200 member goal

JOIN THE WAITLIST

📅 Co-op closes to new members on March 31, 2021

CO-OP

UPDATES (4)

EVENTS

INSTALLERS



Imagine walking into a solar company's office with 50 or 100 of your neighbors and saying, "We all want to get solar. What kind of deal can you give us?"

That's a solar co-op!

CO-OP ORGANIZER



Bret Fanshaw
Arizona Program Director
Solar United Neighbors

Hello and **thank you** for checking out the solar co-op!

Whether you're just curious about solar, or you're ready to make the switch now, I'm **here to help**. I can answer any questions you have about solar. I'll give you installer-neutral guidance to help you make an informed, confident decision about going solar.



Northern AZ Solar Co-op Stats

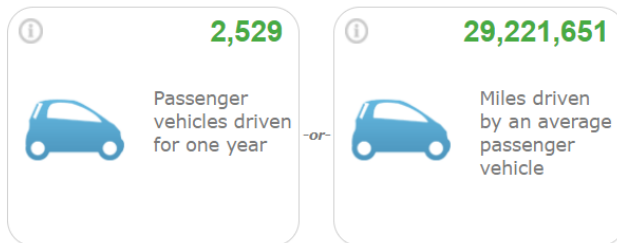
- Co-op members: 226
- Signed contracts: 88
- Projected installs: 83
- Completed installs: 10
- 648.36 kW
- \$1,858,207 invested
- \$3,254,908 est energy savings (25 year)
- 37% conversion rate
- 7.81 kW avg size
- \$2.87/watt avg price
- \$22,388 avg contract
- \$39,215 avg 25-year energy savings
- 25,633,761 lbs est 25-year CO2 offset

25-year CO2 offset impact (25,633,761 lbs)

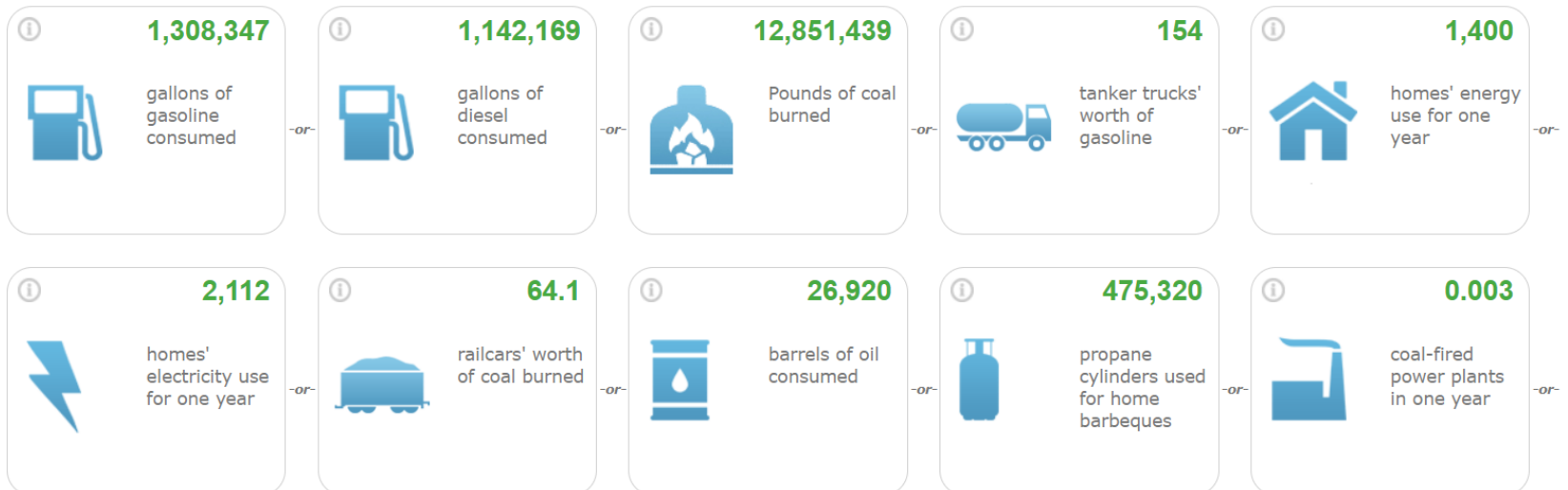
The sum of the greenhouse gas emissions you entered above is of Carbon Dioxide Equivalent. This is equivalent to:

11,627 Metric Tons

Greenhouse gas emissions from



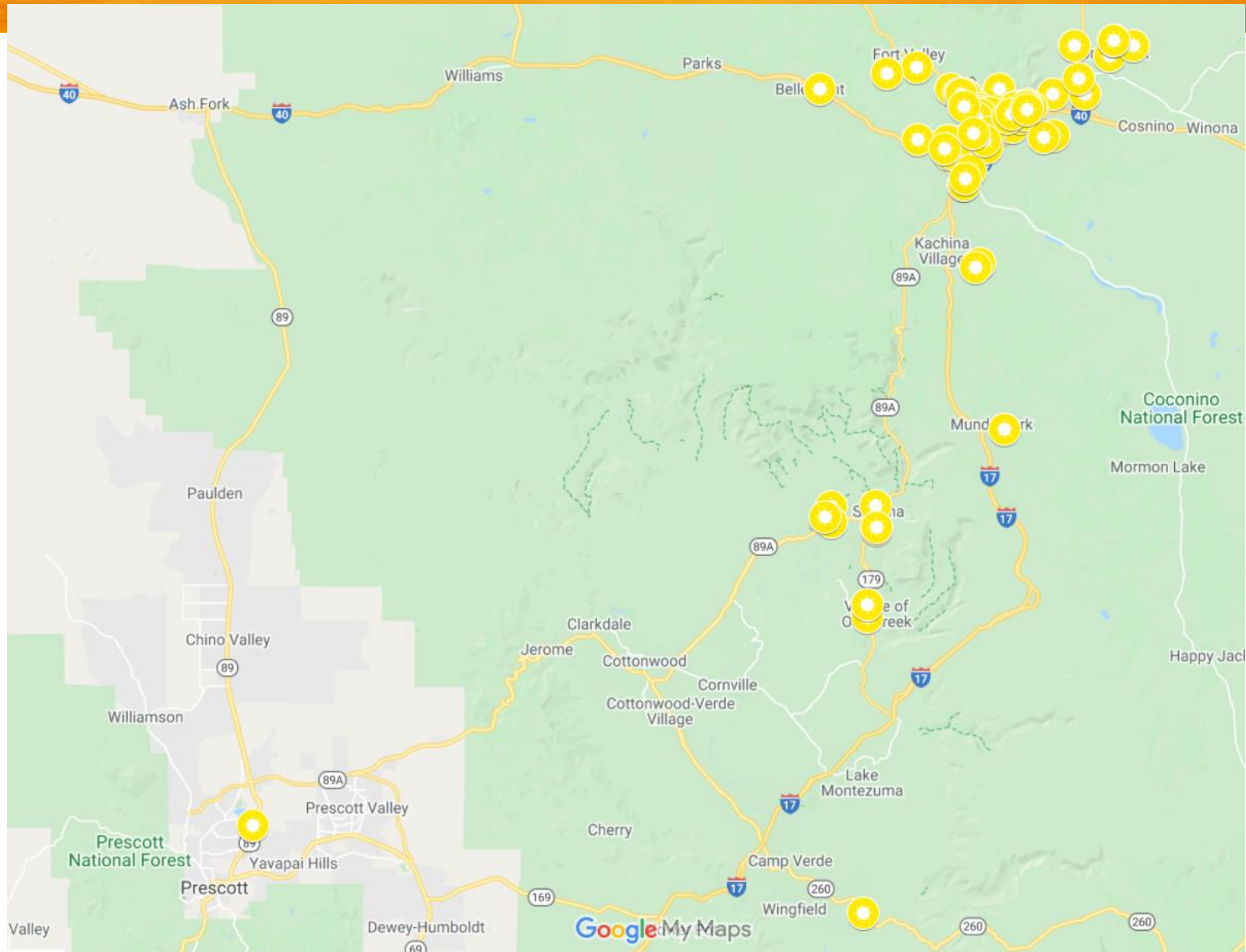
CO₂ emissions from



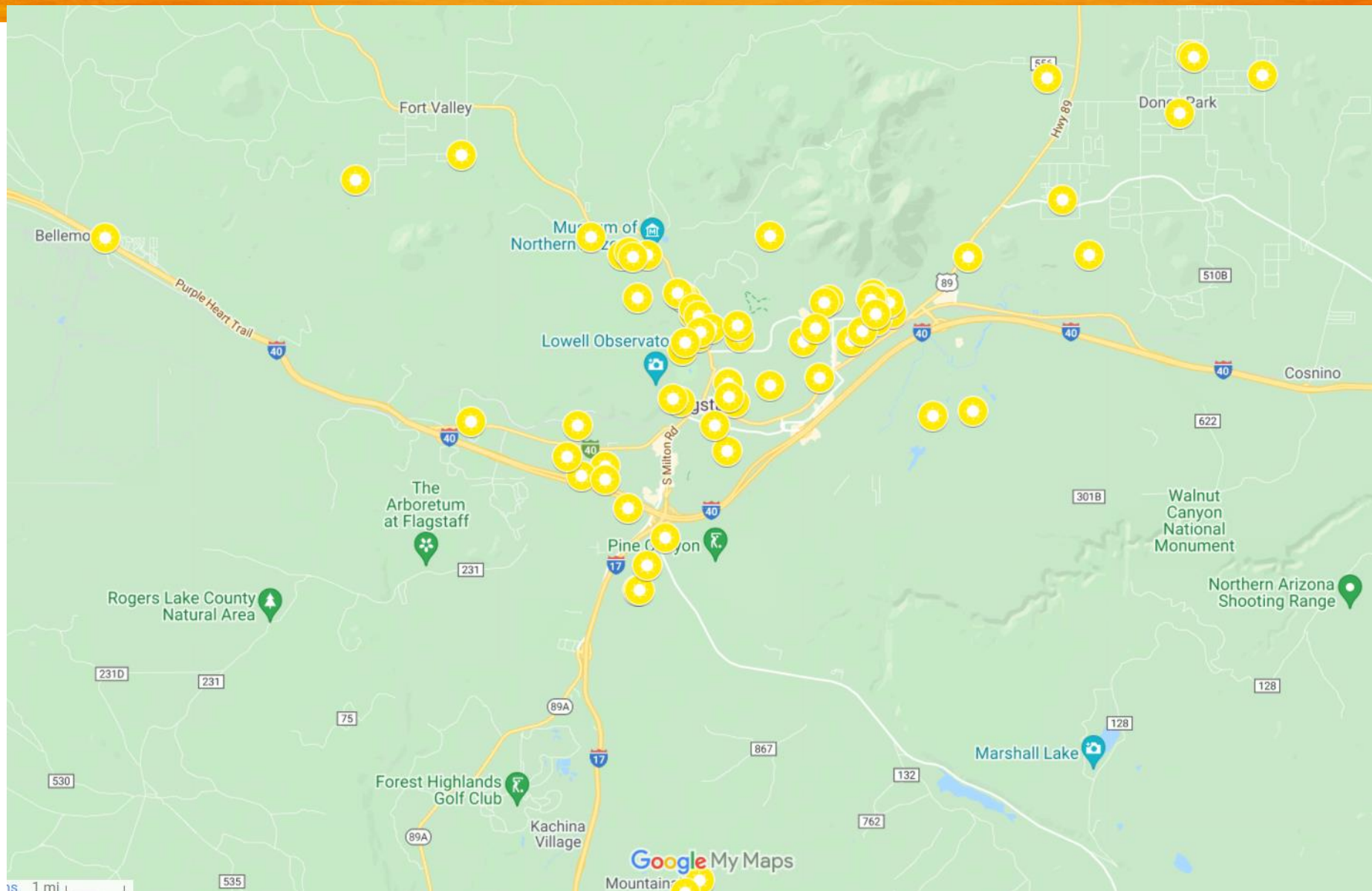
How members heard about the co-op

Lead source	Co-op members	Signed contracts	Conversion rate
Friend	40	14	40%
City of Flagstaff	34	17	50%
Internet (unspecified)	30	6	20%
Facebook	25	8	32%
City of Sedona	20	5	25%
Arizona Daily Sun	17	12	71%
Flagstaff Business News	11	3	27%
News (unspecified)	11	3	27%
Coconino County Community Development	9	3	33%

Map of all co-op members



Map of co-op members (Flagstaff)



Bring us to your community!

- Partner with SUN on a solar co-op
- Help your community go solar together
- Meet local sustainability goals
- Vendor-neutral process (installer selected by co-op members)
- Share in the success of the co-op
- Arizona munis we've worked with:
 - Flagstaff, Sedona, Coconino County, Scottsdale

Thank you!

Bret Fanshaw

Arizona Program Director

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