

# Economic Impacts of Net Metering

Montana Energy & Telecommunications Interim Committee  
January 15, 2016

**Ben Brouwer**

Policy Director

Montana Renewable Energy Association

[www.montanarenewables.org](http://www.montanarenewables.org)

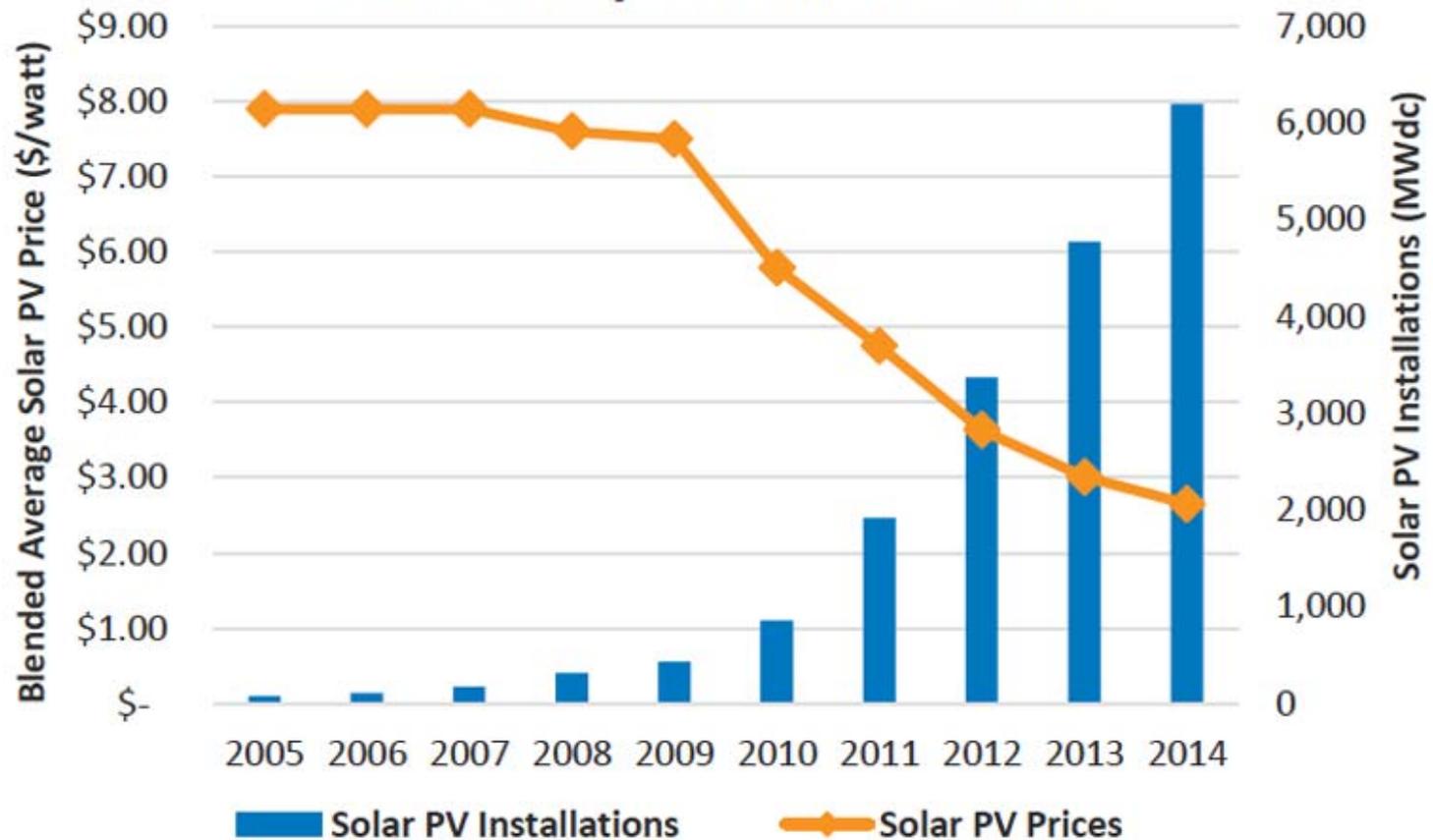


# Market Snapshot

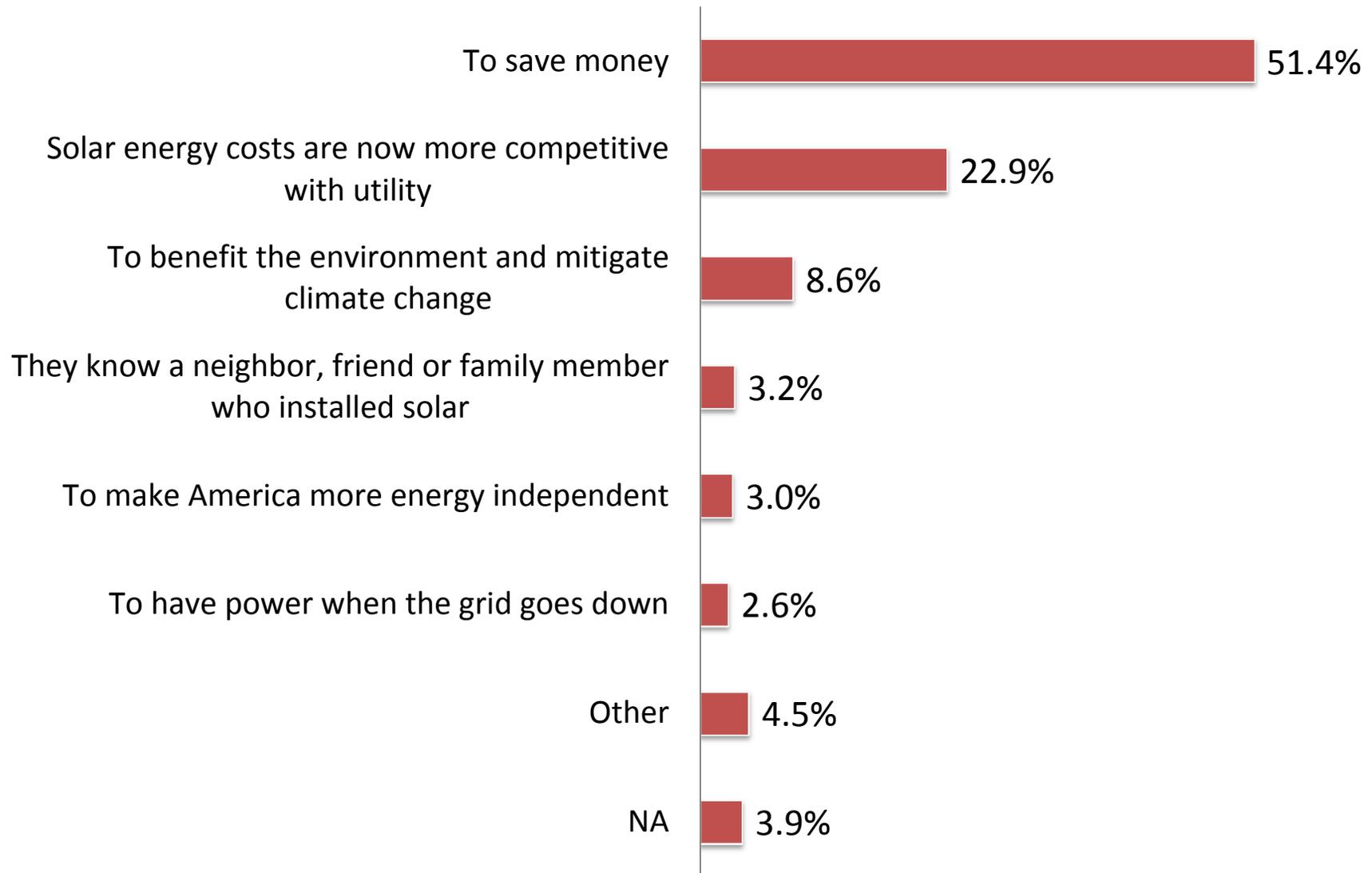


*Credit: Solar Montana, 84.5 kW, River Rock Residences, Helena*

## As Industry Scales, Prices Fall

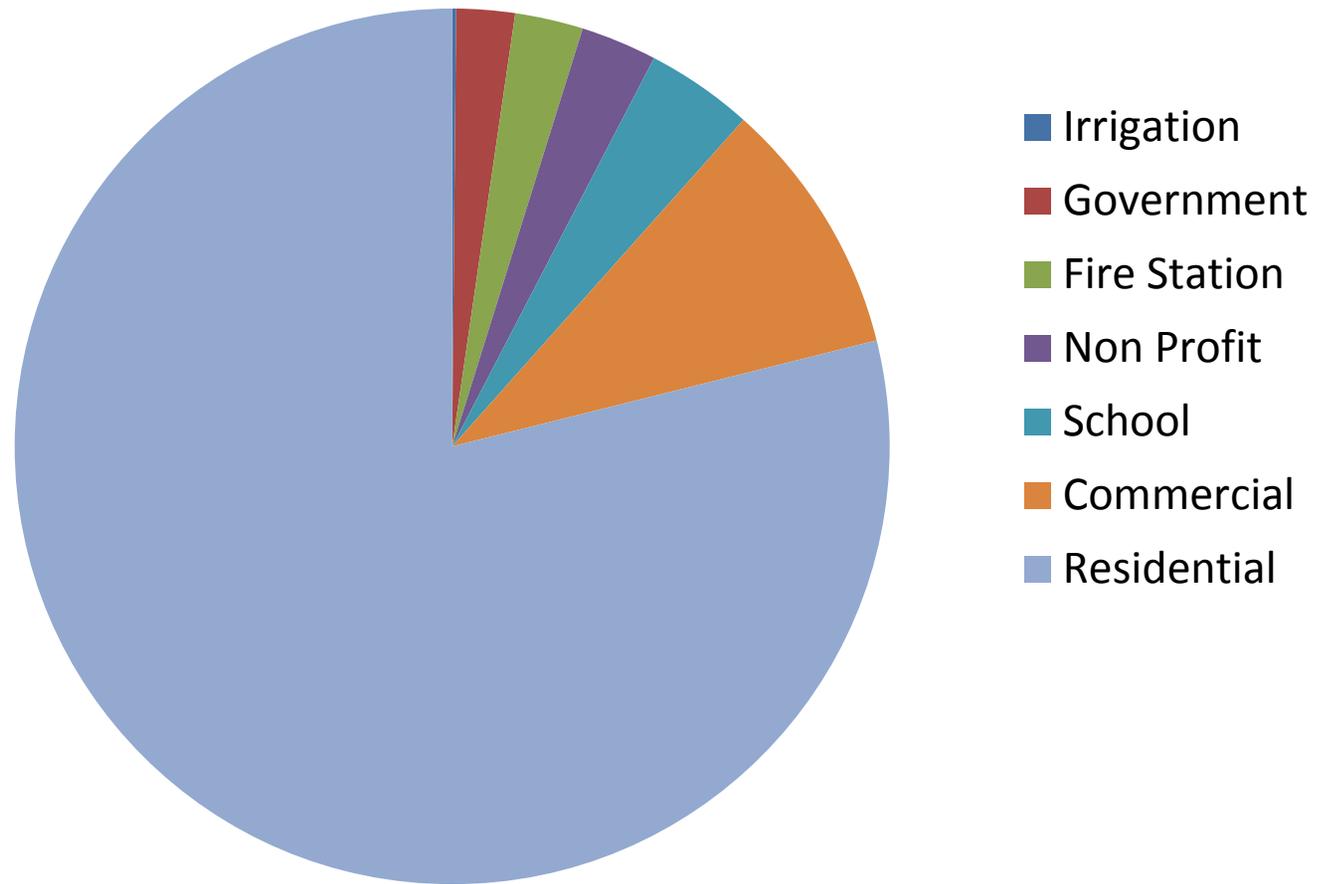


# Factors driving consumer demand



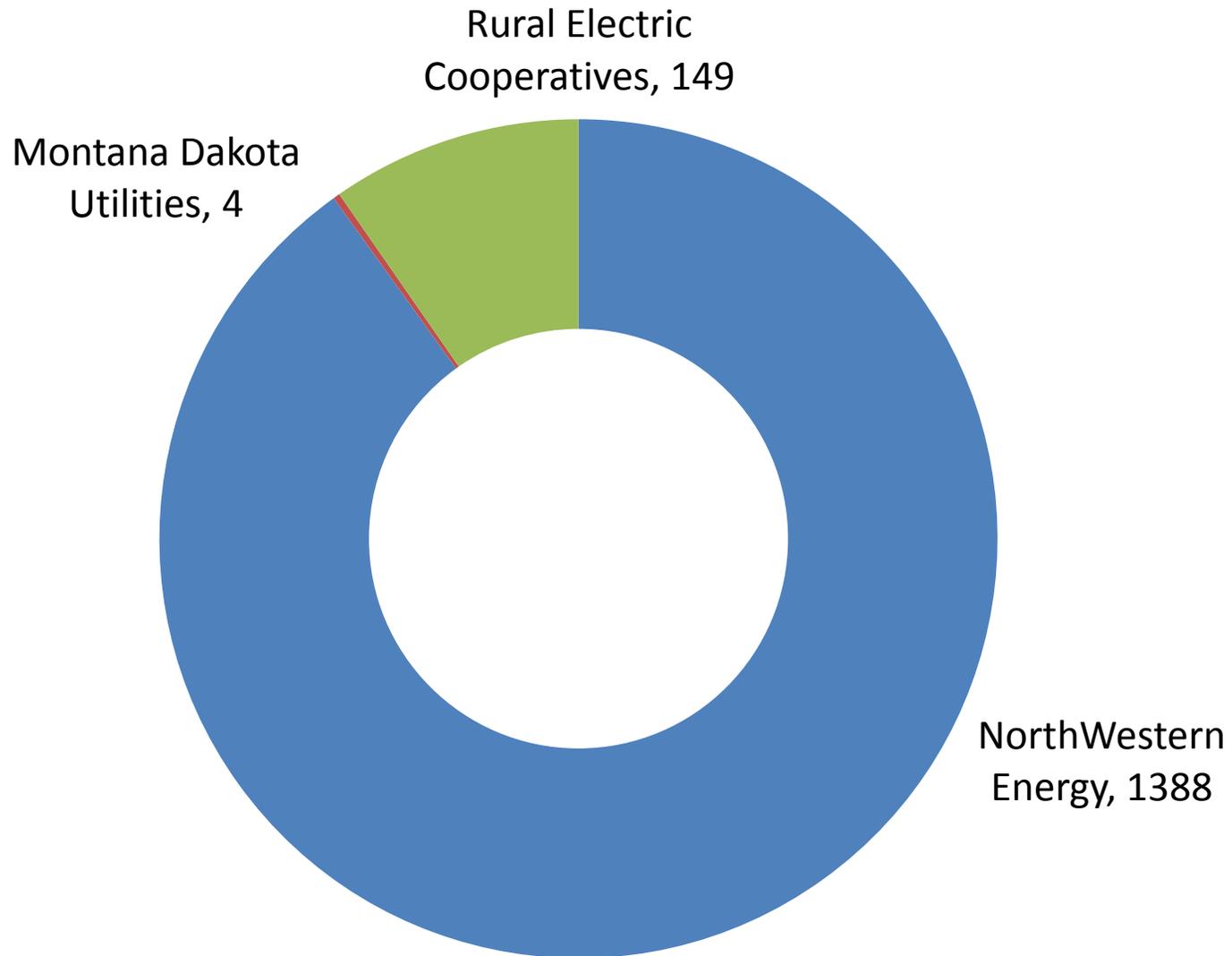
Source: The Solar Foundation

# Net metering systems by customer type



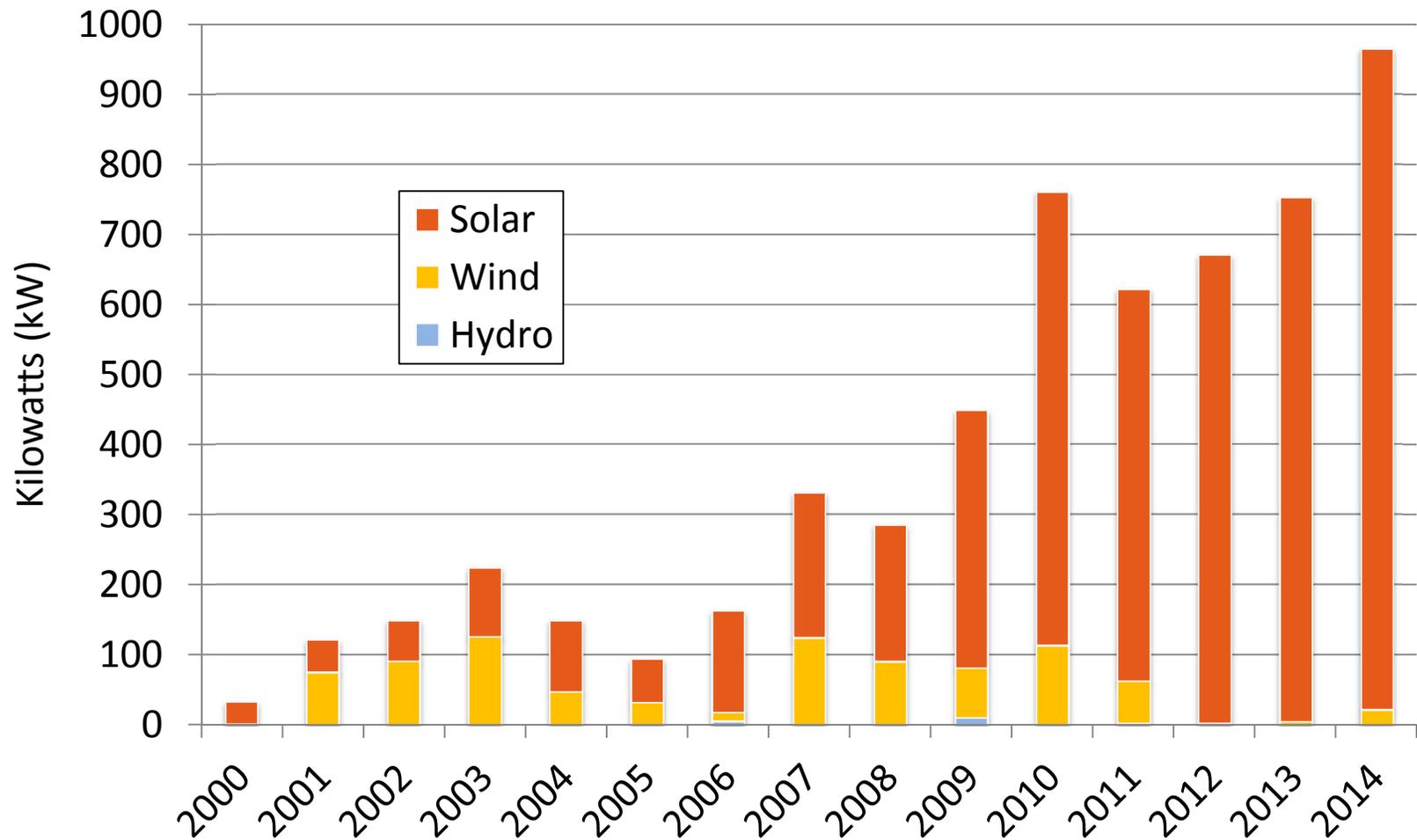
*Source: NorthWestern Energy, MREA*

# Number of net metering systems by utility



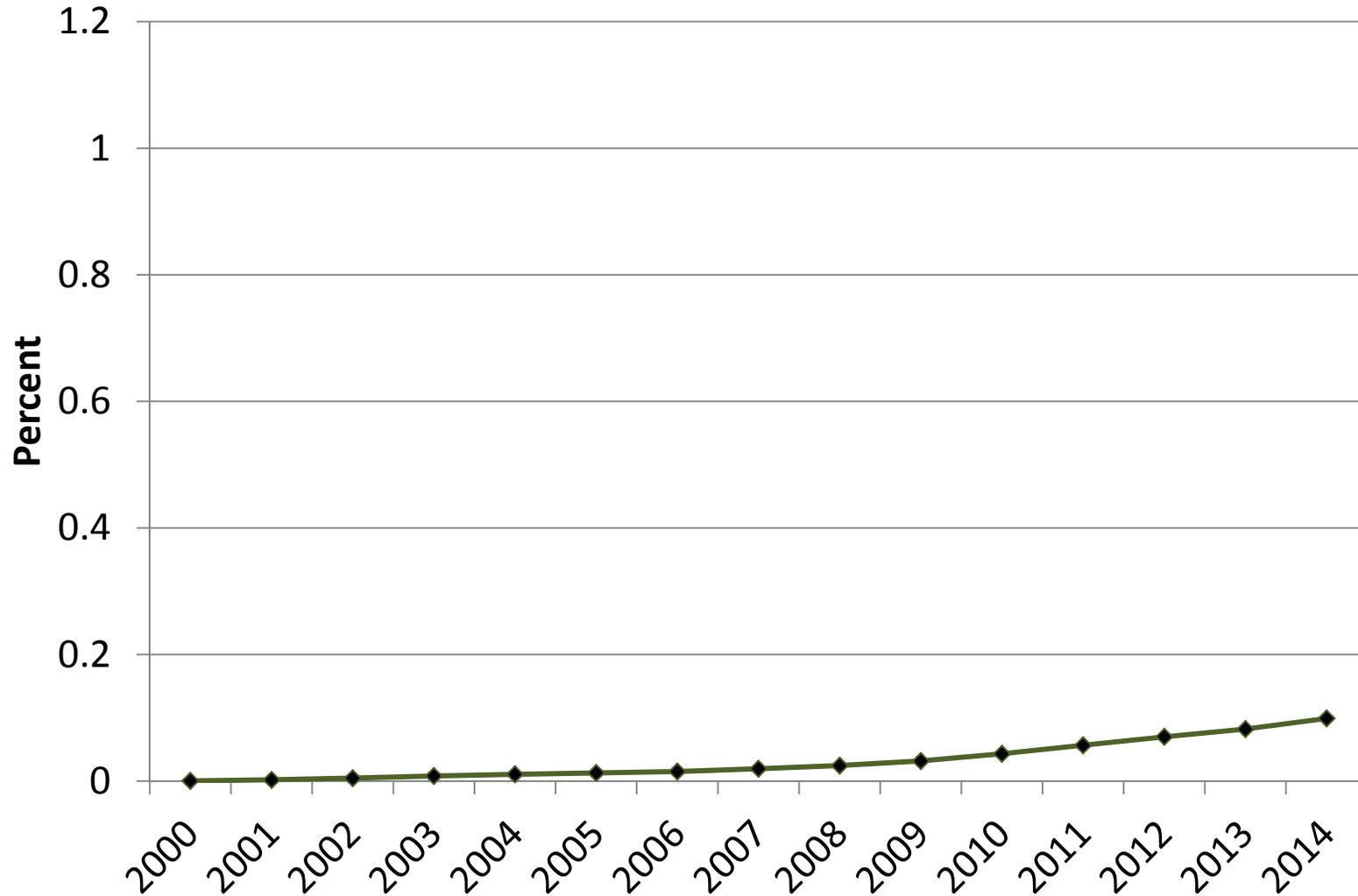
*Source: NorthWestern Energy, ETIC, MREA*

# Net metering generating capacity added yearly



Source: NorthWestern Energy, MREA

# Net metering output as percent of NorthWestern retail sales



Source: NorthWestern Energy, U.S. Dept. of Energy, MREA

# Impacts on the Economy



*Credit: Onsite Energy, 30 kW, Emerson Center, Bozeman*

# Economic impacts of net metering, 2000-2014

Benefits and Costs	2014	2000-2014
<b>Benefits</b>		
Bill savings, 2014	\$597,650	--
Bill savings, 2000-2014	--	\$2,673,305
Installation sales revenue, 2014	\$3,538,384	--
Installation sales revenue 2000-2014	--	\$29,949,178
Increased residential property value, 2014	\$2,830,707	--
Increased residential property value, 2000-2014	--	\$9,987,000
Value of avoided CO2 emissions, 2014	\$125,337	--
<b>Costs</b>		
Montana income tax credits, 2014	(\$161,000)	--
Montana income tax credits, 2000-2014	--	(\$1,095,000)
USB renewable energy and R&D allocations, 2014	(\$1,427,821)	
USB allocations, renewable energy and R&D, 1999-2014	--	(\$19,141,446)
<b>Totals</b>		
Total benefits	\$6,494,428	\$42,720,045
Total costs	(\$1,588,821)	(\$20,236,446)
Net economic impact	\$4,905,607	\$22,483,599

Source: MREA

# Lifetime economic impacts of net metering systems installed 2000-2014

Benefits and Costs	2000-2039
<b>Benefits</b>	
Bill savings	\$17,897,546
Installation sales revenue : wages, hardware, subcontractors, equipment rentals, building permit fees	\$29,949,178
Increased residential property value	\$9,987,000
Value of avoided CO2 emissions	\$3,177,040
<b>Costs</b>	
Montana income tax credits	(\$1,095,000)
USB allocations, renewable energy and R&D	(\$19,141,446)
<b>Totals</b>	
Total benefits	\$61,010,764
Total costs	(\$20,236,446)
Net economic impact	\$40,774,318

Source: MREA

# Jobs and Wages



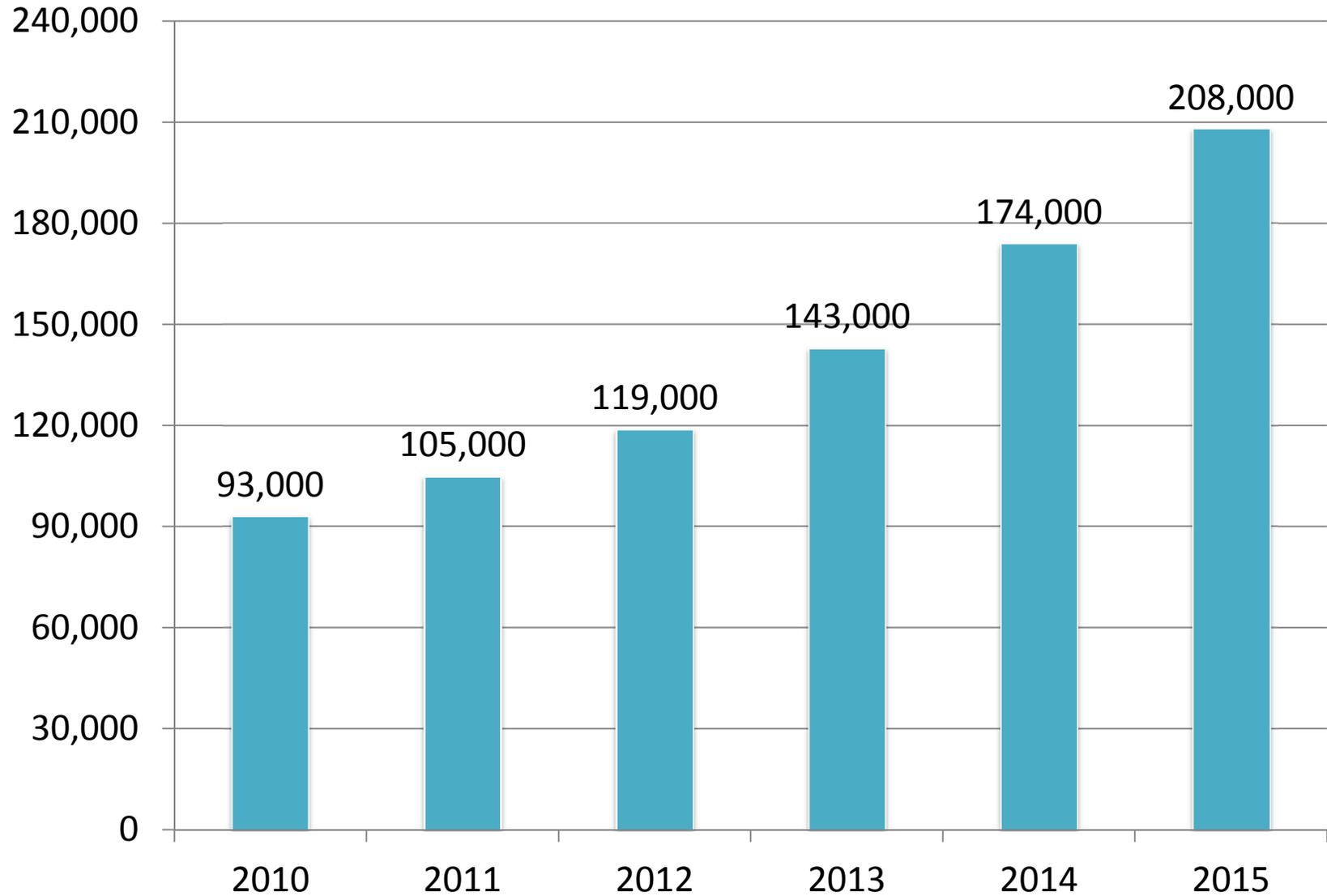
*Credit: Independent Power Systems, Billings MET Transit*

# Montana solar jobs and wages

- 37 NWE qualified installation businesses
- 92 full time jobs
  - \$40,000 to \$45,000/year
- 71 part time/seasonal jobs
  - \$20 to \$29/hour
- 284 subcontractors

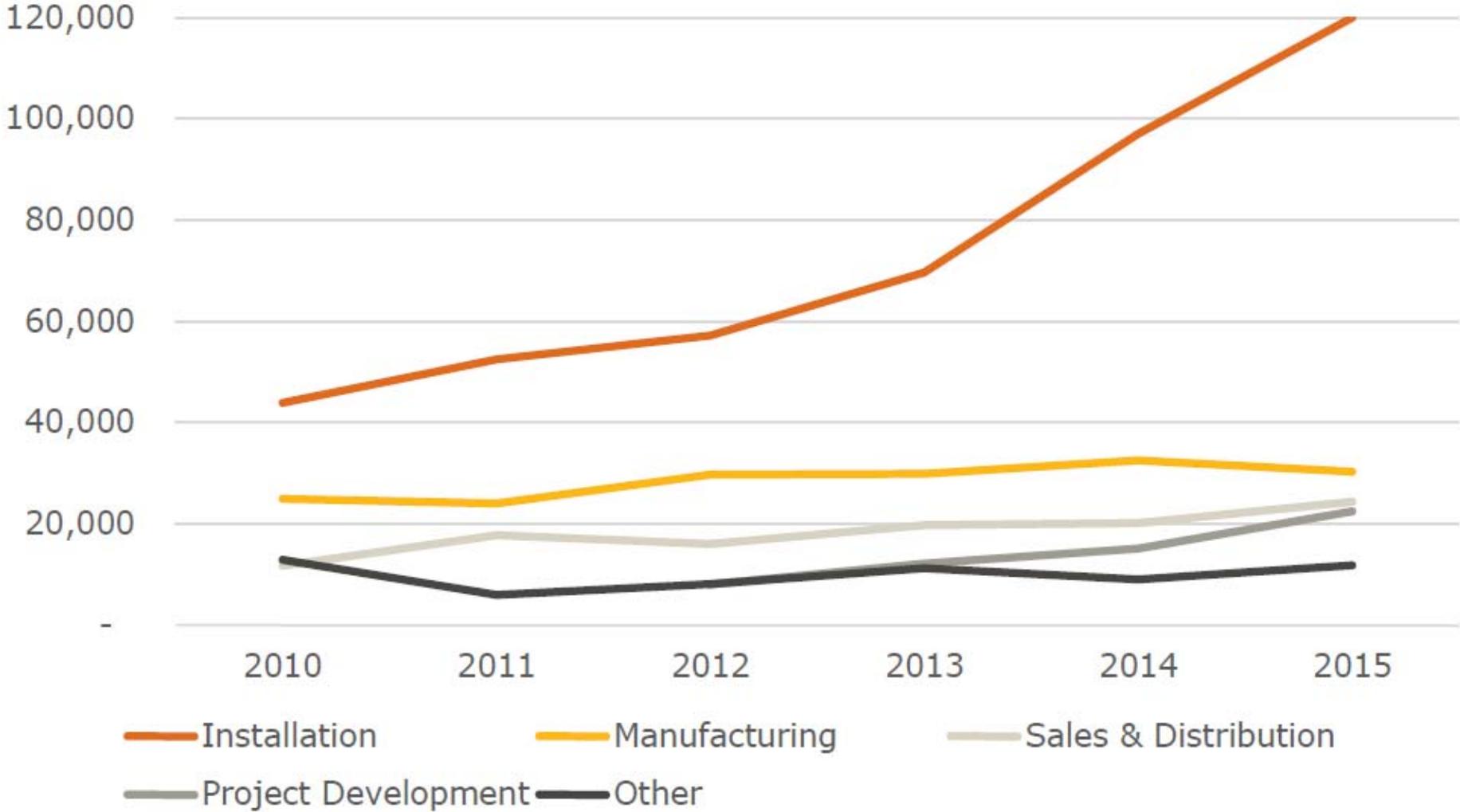
*Source: NorthWestern Energy, MREA*

# U.S. Solar Industry Workers



*Source: The Solar Foundation*

# Solar Employment Growth By Sector



Source: The Solar Foundation

# Montana solar sub-contractors

*(sample based on 3 solar businesses)*

- Beaudette Consulting and Engineering (Missoula)
- MMW Architects (Missoula)
- Summit Roofing (Missoula)
- Donaldson Brothers Concrete (Hamilton)
- LHC Concrete (Kalispell)
- Ronan Irrigation - Excavating (Ronan)
- Capital Concrete (Helena)
- M&P Excavating (Deer Lodge)
- S&N Concrete (Anaconda)
- D & G Crane Service (Missoula)
- Nishkian Monks, Consulting and Structural Engineers (Bozeman)
- Slate Architecture (Helena)
- A.T. Klemens Roofing (Great Falls)
- Knife River Ready Mix (Belgrade)
- Steve Johnston Excavation (Belgrade)
- Beartooth Electric (Livingston)
- Armitage Electric (Bozeman)
- Black Iron Design (Bozeman)
- Mears Welding (Belgrade)
- Summit Roofing (Helena)
- Schine Electric (Havre)
- Pimley Electric (Chester)
- Triton Electric (Belgrade)
- O'Neall Electric (Valier)
- Fischer Electric (White Sulfur Springs)
- Townsend Electric (Townsend)
- Digidio Sheet Metal (Bozeman)
- Data Plates (Missoula)
- Engravables (Billings)
- Liberty Electric (Great Falls/Havre)
- Elkhorn Electric (Butte)
- Treasure State Electric (Billings)
- Red Lodge Electric (Red Lodge)
- Shine Electric (Havre)
- Ganear Electric (Billings/Red Lodge)
- Mark Fjare Electric (Columbus/Absarokee)
- Sacry Electric (Whitehall)
- Spencer Electric (Malta)

# Business Perspectives



*Credit: Jordan Solar, 85 kW, City of Missoula parking garage*

Montana's net metering law is critically important to our business.

By guaranteeing utility customers a fair credit for extra energy they generate, the law gives households and businesses the certainty they need to invest in solar power.

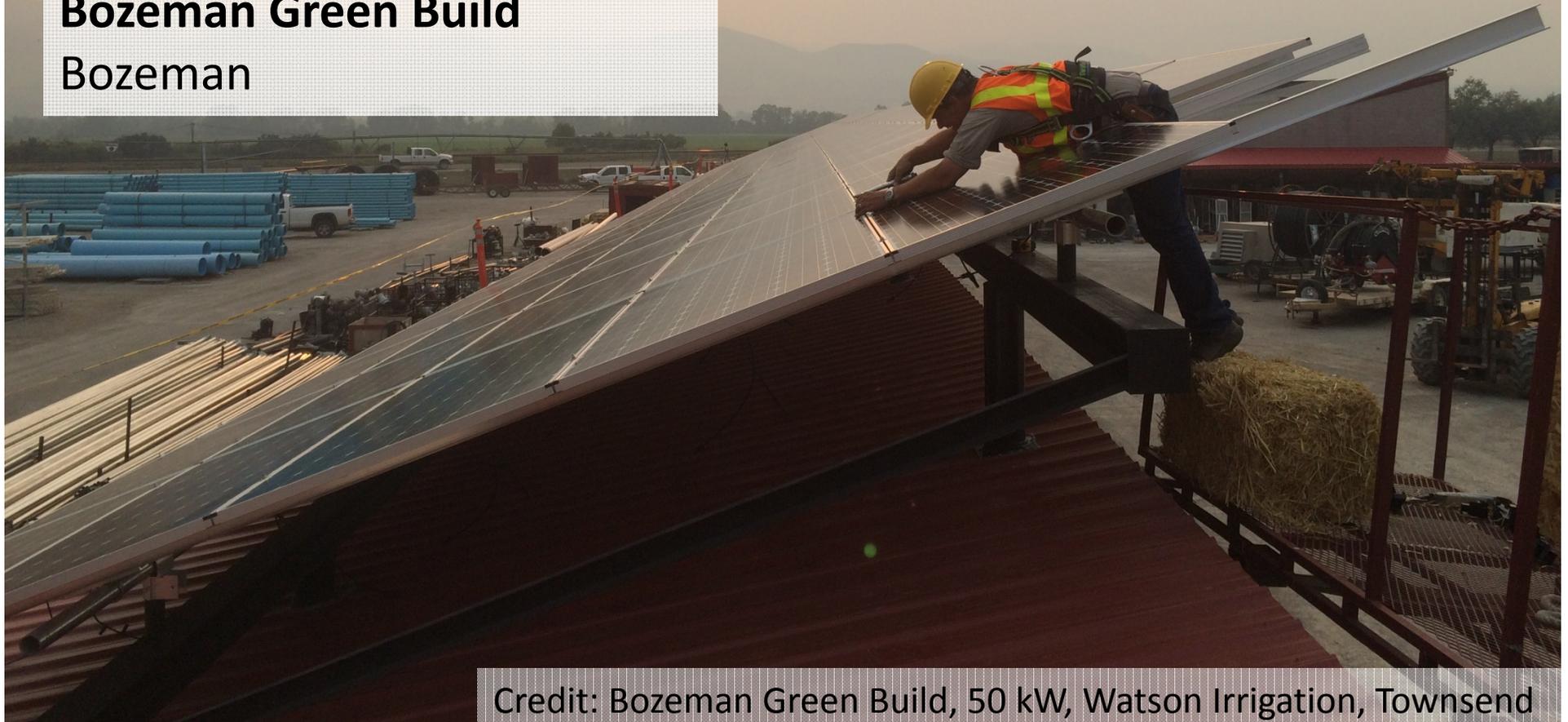
**Jordan Solar**  
Charlo



Credit: Jordan Solar, 2 kW, residence, Hamilton

With a higher cap we would see bigger projects, more wages, more taxes paid to the state and more energy savings for my clients.

**Bozeman Green Build**  
Bozeman



Credit: Bozeman Green Build, 50 kW, Watson Irrigation, Townsend



Credit: Bozeman Green Build, 59 kW, Great Falls Armed Forces Reserve Center

# Economic Impacts of Net Metering

Montana Energy & Telecommunications Interim Committee  
January 15, 2016

**Ben Brouwer**

Policy Director

Montana Renewable Energy Association

[www.montanarenewables.org](http://www.montanarenewables.org)

