

Economic Impacts of Net Metering

Montana Energy & Telecommunications Interim Committee
January 15, 2016

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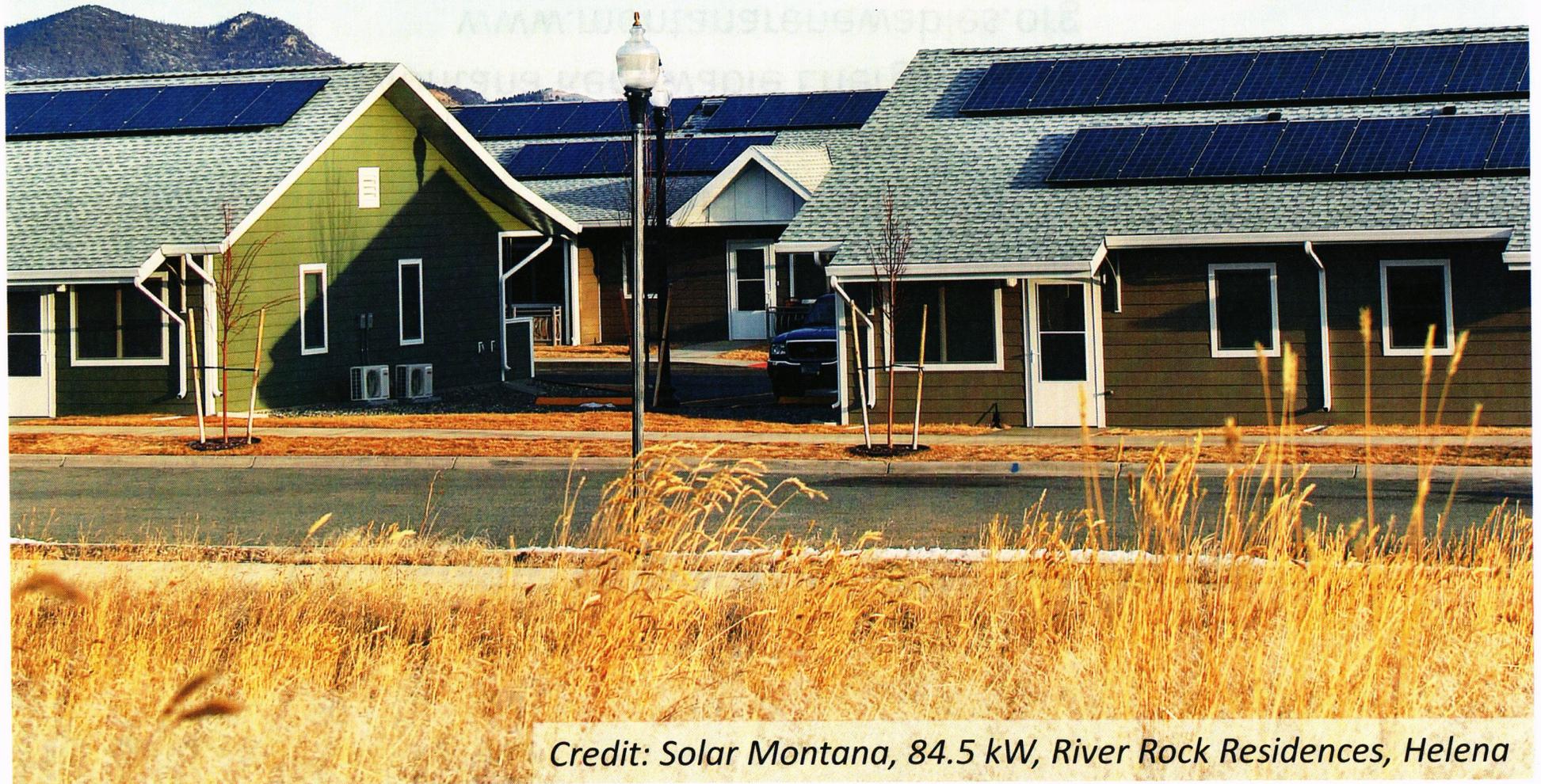


ENERGY &
TELECOMMUNICATIONS
INTERIM COMMITTEE 2015-2016

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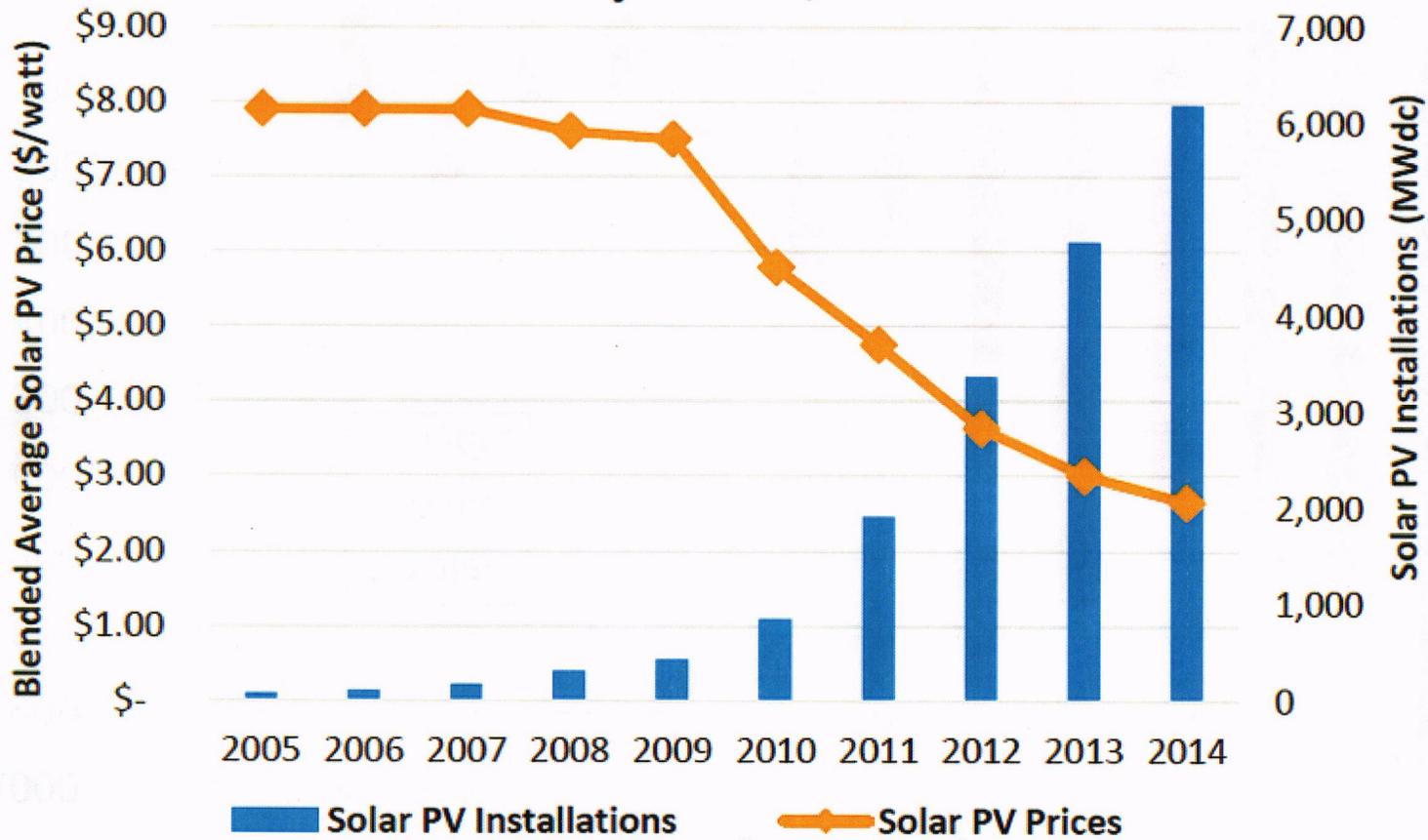
Exhibit 15

Market Snapshot

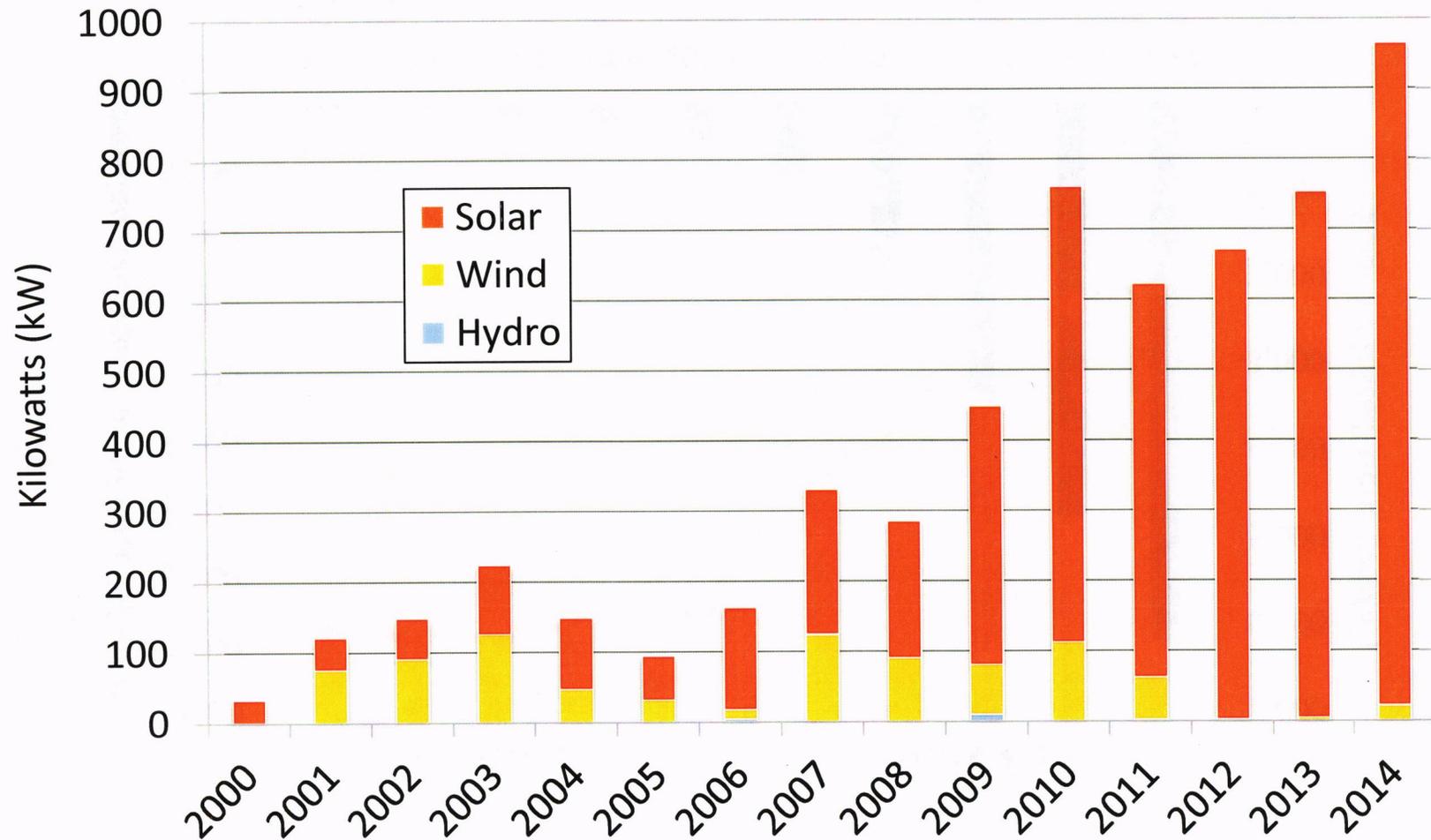


Credit: Solar Montana, 84.5 kW, River Rock Residences, Helena

As Industry Scales, Prices Fall

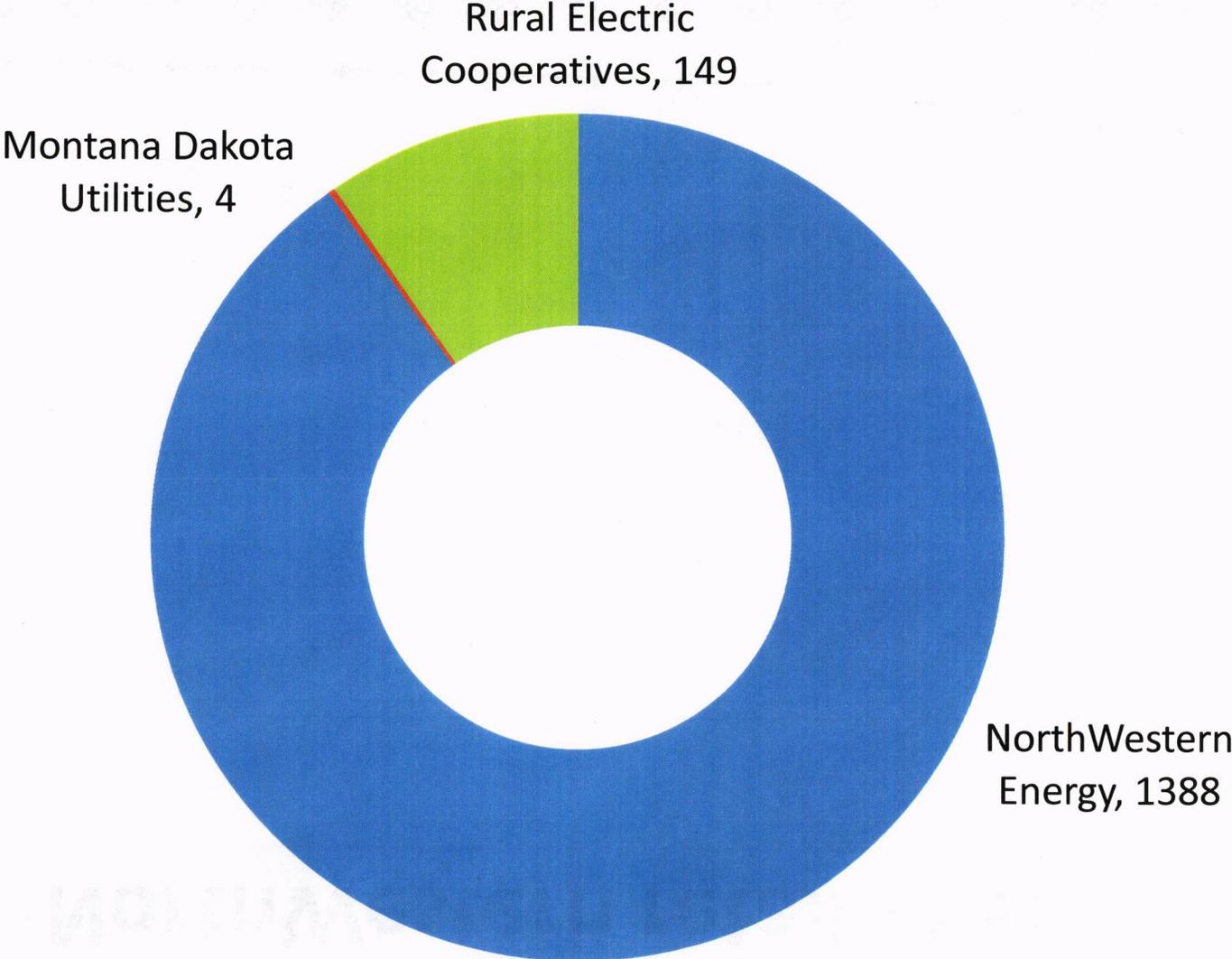


Net metering generating capacity added yearly



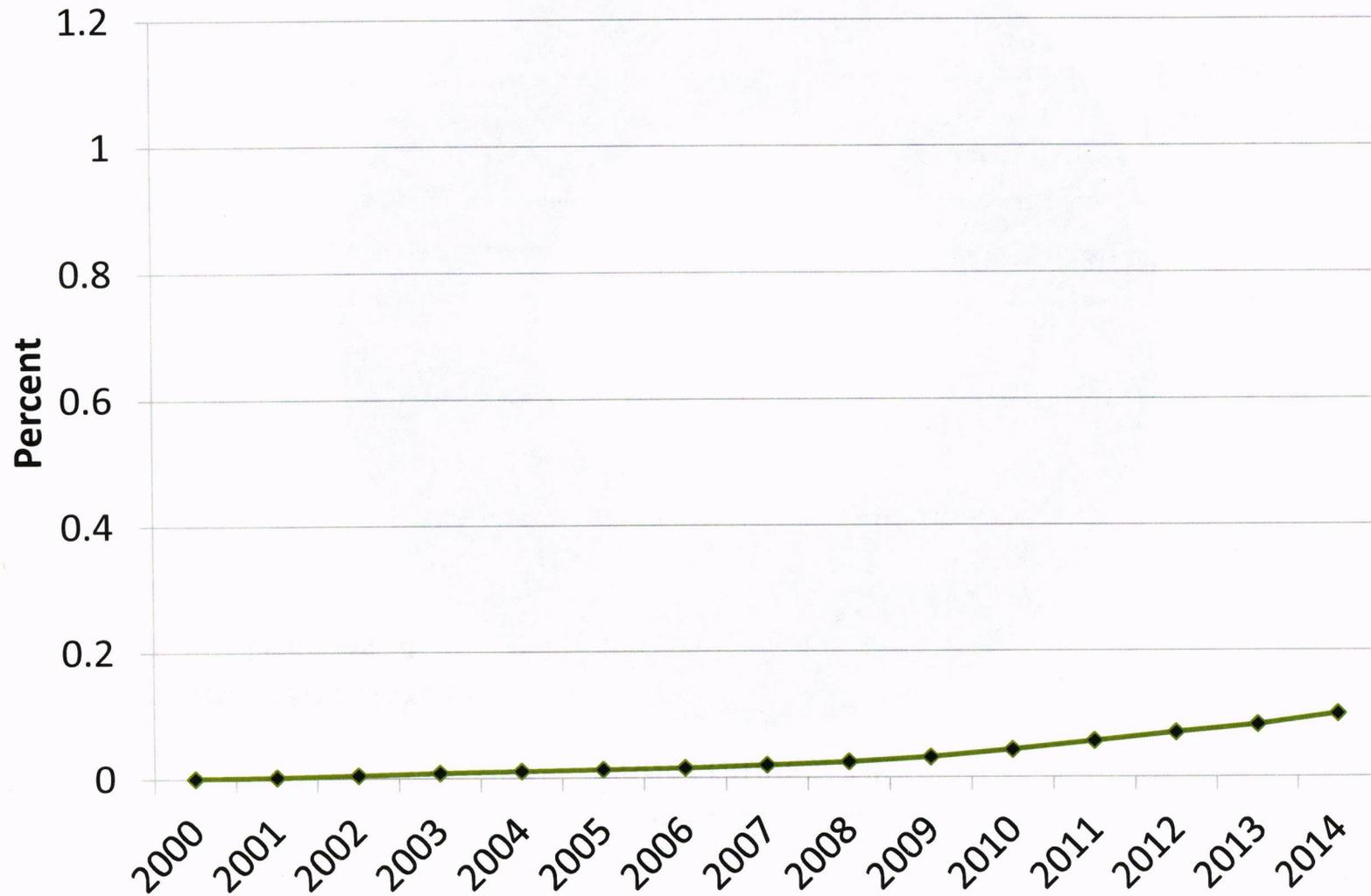
Source: NorthWestern Energy, MREA

Number of net metering systems by utility



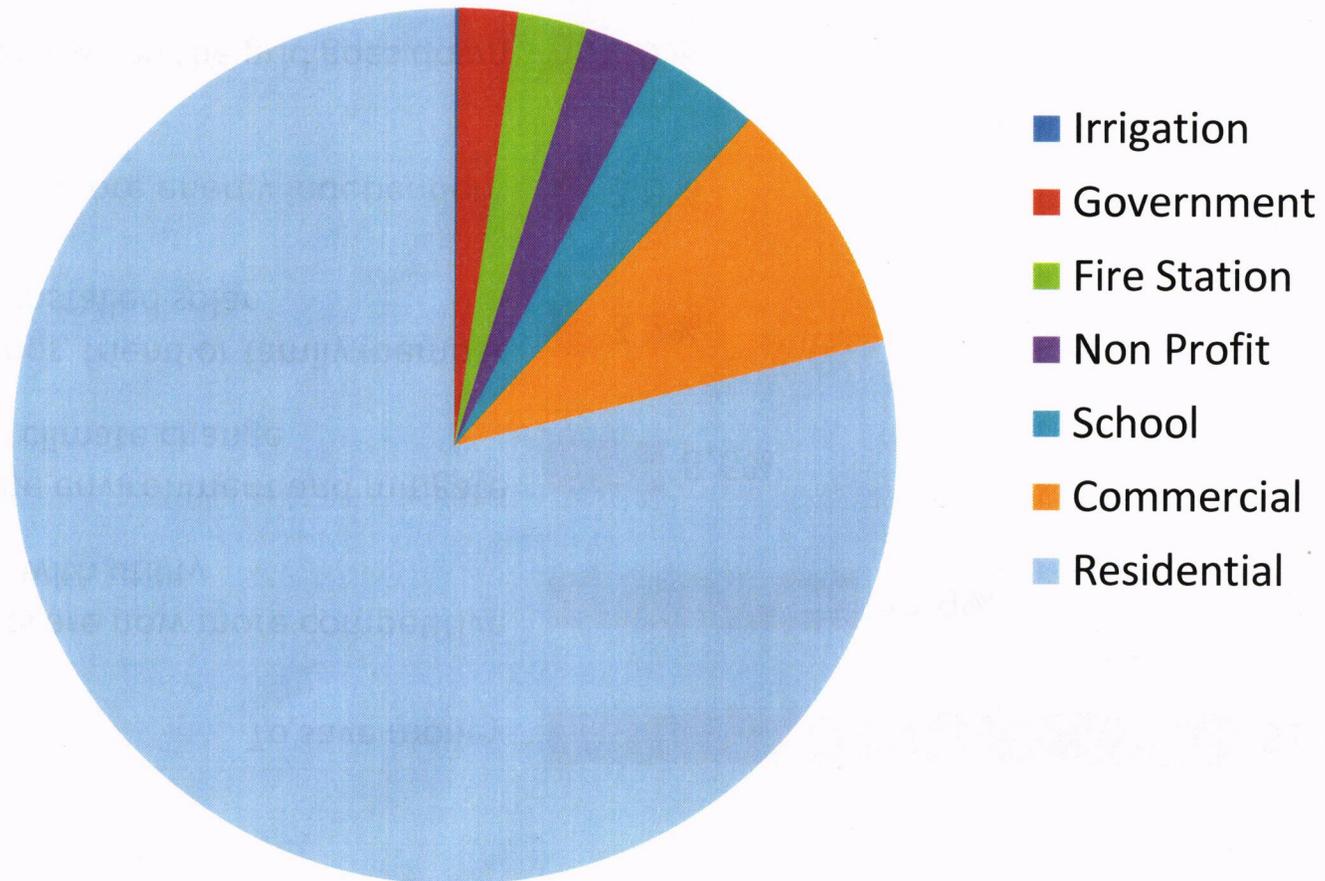
Source: NorthWestern Energy, ETIC, MREA

Net metering output as percent of NorthWestern retail sales



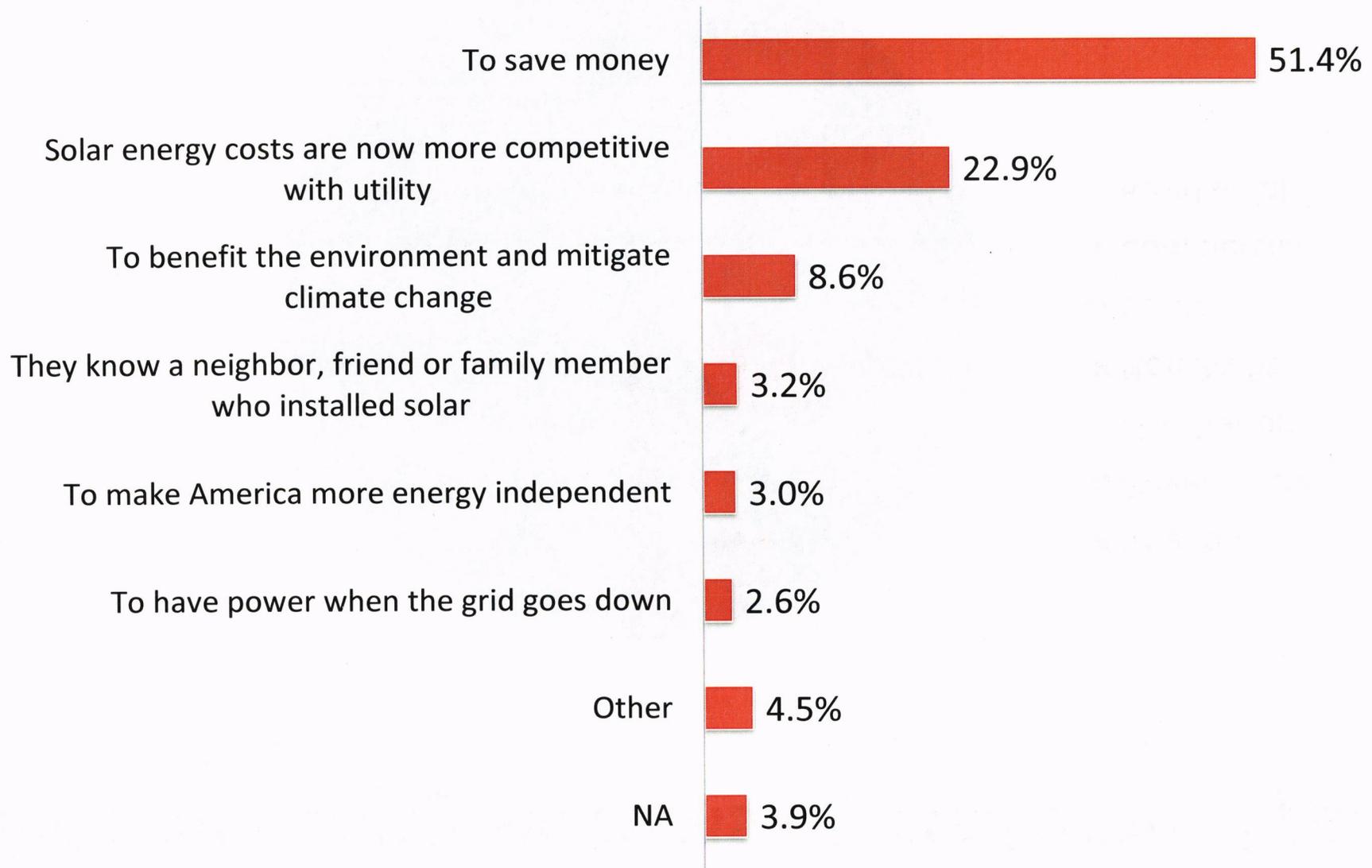
Source: NorthWestern Energy, U.S. Dept. of Energy, MREA

Net metering systems by customer type



Source: NorthWestern Energy, MREA

Factors driving consumer demand



Source: The Solar Foundation

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
Benefits		
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	--
Costs		
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)
Totals		
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
Benefits	
Bill savings	\$16,959,310
Installation sales revenue	\$29,949,178
Increased residential property value	\$9,987,000
Value of avoided CO2 emissions	\$3,177,040
Costs	
Montana income tax credits	(\$1,095,000)
USB allocations, renewable energy and R&D	(\$19,141,446)
Totals	
Total benefits	\$60,072,528
Total costs	(\$20,236,446)
Net economic impact	\$39,836,082

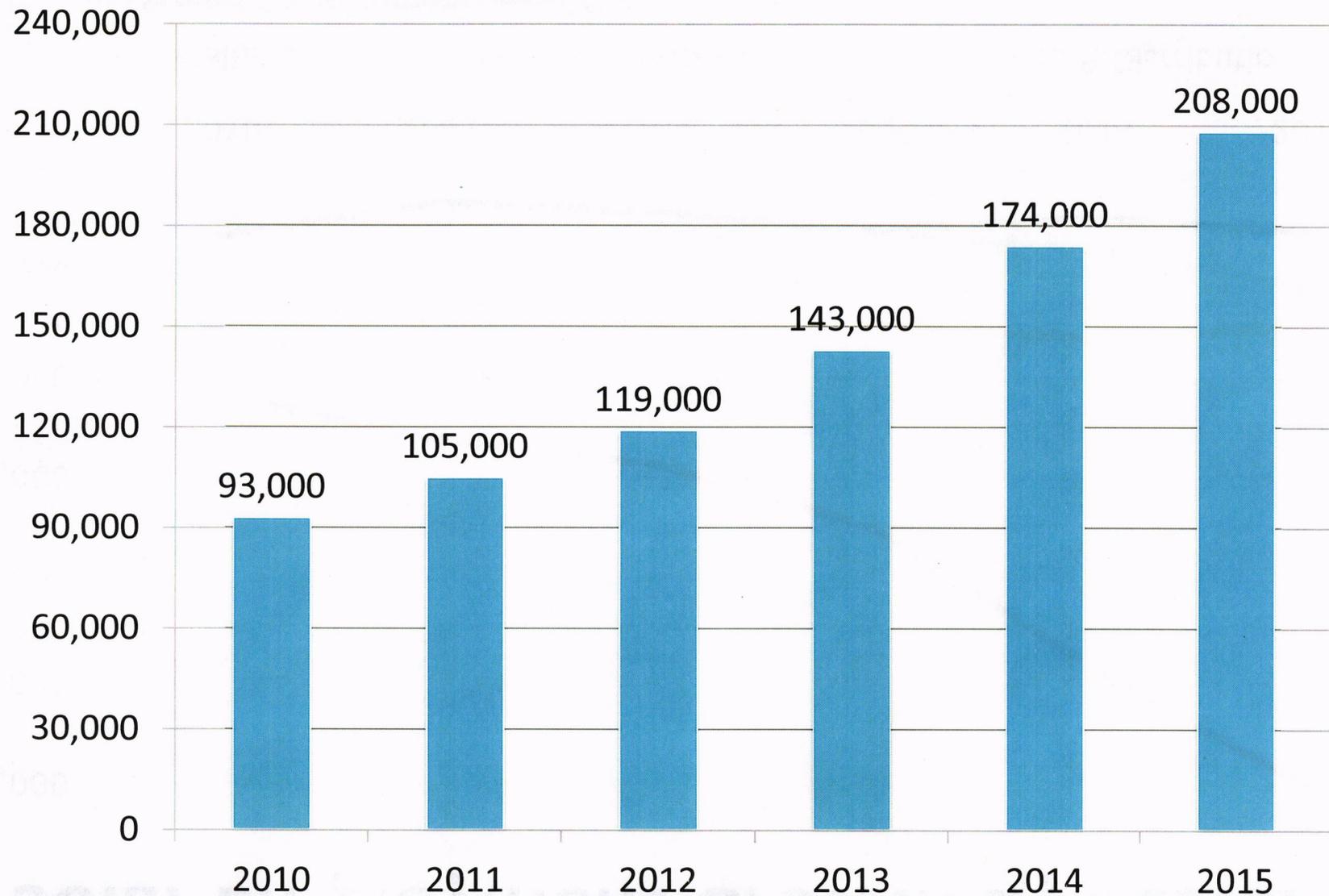
Source: MREA

Jobs and Wages



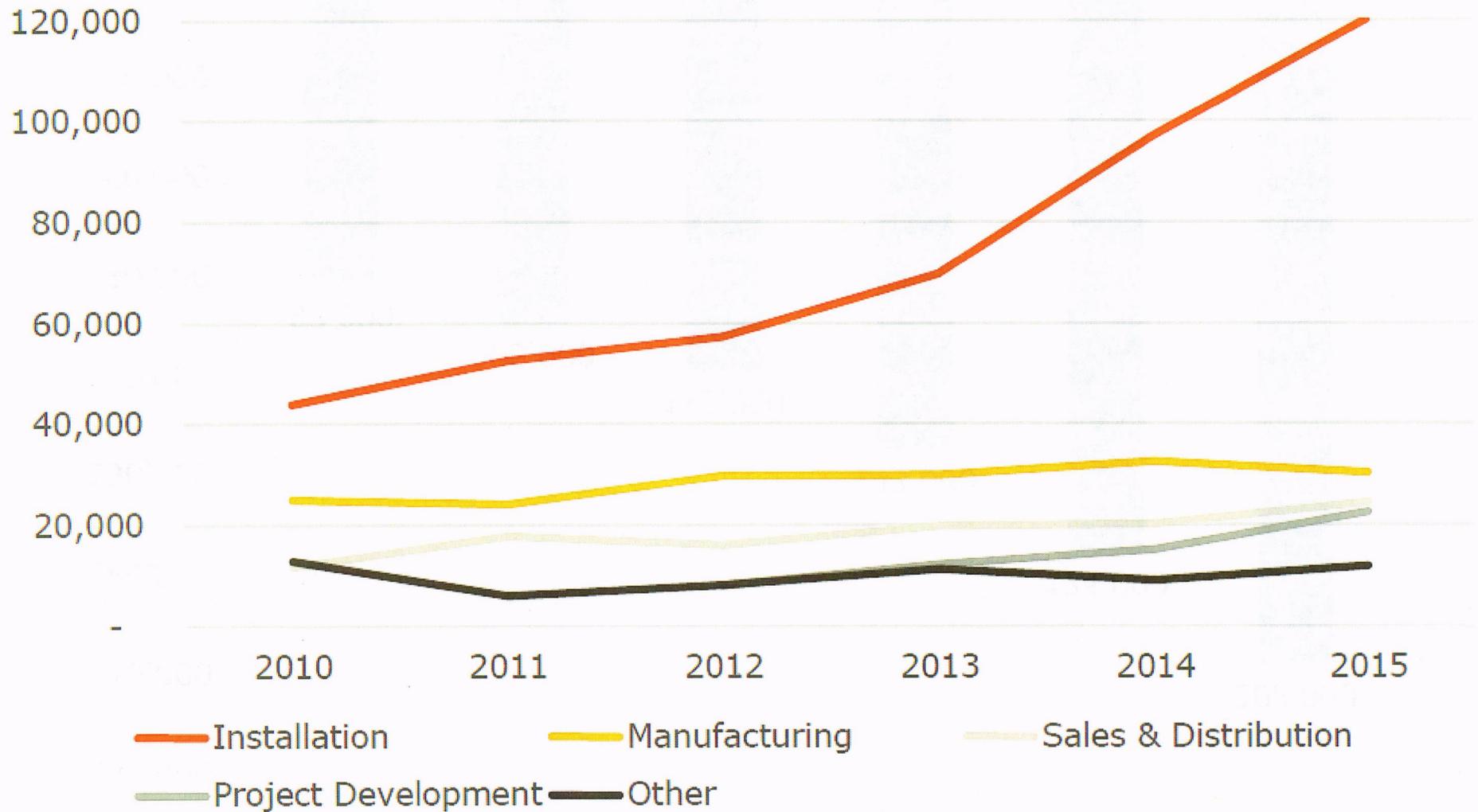
Credit: Independent Power Systems, Billings MET Transit

U.S. Solar Industry Workers



Source: The Solar Foundation

Solar Employment Growth By Sector



Source: The Solar Foundation

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

Montana solar sub-contractors

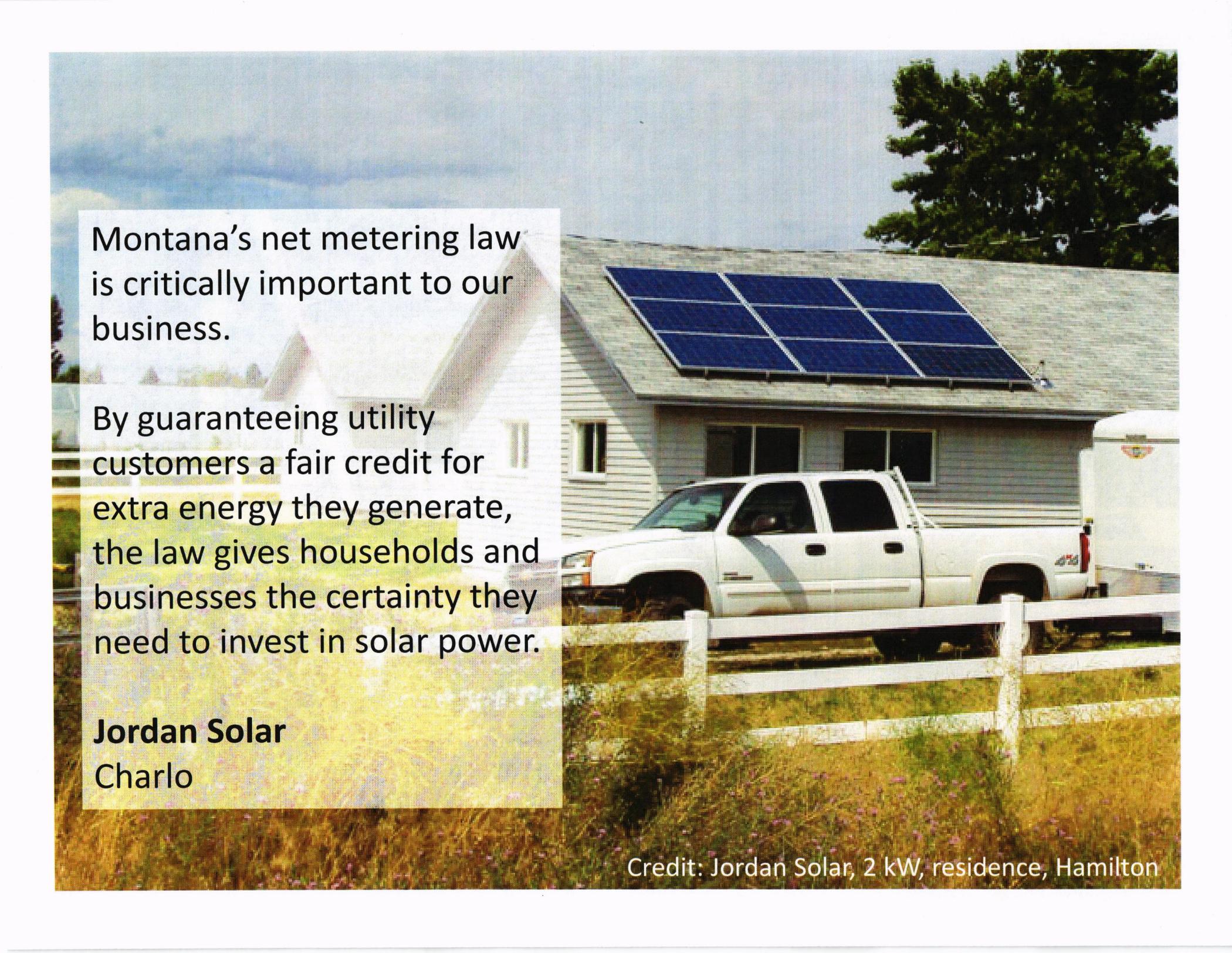
(sample based on 3 solar businesses)

- 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.

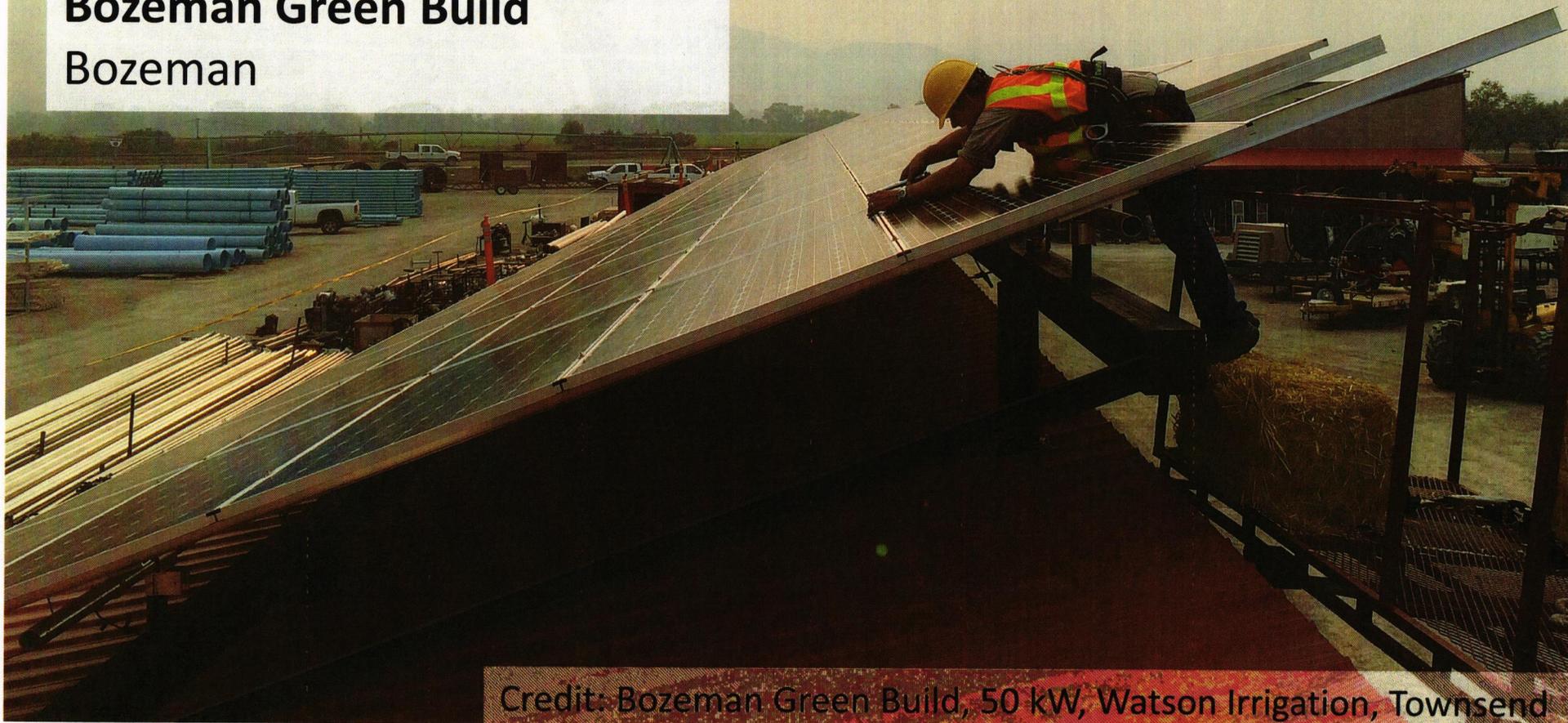
Jordan Solar
Charlo

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

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