• Non-Profit Organization, Est. 2001
• Policy and Regulatory Expertise
• Public Education & Outreach
• Solutions-oriented approach
Rooftop Solar: National Policies

Image: DSIRE, NC Clean Energy Technology Center
State Policy Changes:

Table 1. 2017 Summary of Policy Actions

<table>
<thead>
<tr>
<th>Policy Type</th>
<th># of Actions</th>
<th>% by Type</th>
<th># of States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential fixed charge or minimum bill increase</td>
<td>84</td>
<td>34%</td>
<td>35 + DC</td>
</tr>
<tr>
<td>DG compensation policies</td>
<td>66</td>
<td>27%</td>
<td>31 + DC</td>
</tr>
<tr>
<td>Community solar</td>
<td>30</td>
<td>12%</td>
<td>21</td>
</tr>
<tr>
<td>Solar valuation or net metering study</td>
<td>28</td>
<td>11%</td>
<td>21 + DC</td>
</tr>
<tr>
<td>Residential demand or solar charge</td>
<td>19</td>
<td>8%</td>
<td>10</td>
</tr>
<tr>
<td>Third-party ownership of solar</td>
<td>14</td>
<td>6%</td>
<td>8</td>
</tr>
<tr>
<td>Utility-led rooftop PV programs</td>
<td>8</td>
<td>3%</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>249</strong></td>
<td><strong>100%</strong></td>
<td><strong>45 States + DC</strong></td>
</tr>
</tbody>
</table>

Note: The "# of States/Districts" total is not the sum of the rows, as some states have multiple actions. Percentages are rounded and may not add up to 100%.

Source: NC Clean Energy Technology Center, 50 States of Solar
SUMMARY OF DPV BENEFITS AND COSTS

BENEFITS AND COSTS OF DISTRIBUTED PV BY STUDY

INSIGHTS

- No study comprehensively evaluated the benefits and costs of DPV, although many acknowledge additional sources of benefit or cost and many agree on the broad categories of benefit and cost.

- There is a significant range of estimated value across studies, driven primarily by differences in local context, input assumptions, and methodological approaches.

- Because of these differences, comparing results across studies can be informative, but should be done with the understanding that results must be normalized for context, assumptions, or methodology.

- While detailed methodological differences abound, there is general agreement on overall approach to estimating energy value, although there remain key differences in capacity methodology. There is significantly less agreement on overall approach to estimating grid support services and currently unmonetized values including financial and security risk, environment, and social value.

* The LBNL study only gives the net value for ancillary services
** E3’s DPV technology cost includes LCOE + interconnection cost
*** The NREL study is a meta-analysis, not a research study. Customer Services, defined as the value to customer of a green option, was only reflected in the NREL 2008 meta-analysis and not included elsewhere in this report.
****Average retail rate included for reference; it is not appropriate to compare the average retail rate to total benefits presented without also reflecting costs (i.e., net value) and any material differences within rate designs (i.e., not average).
Note: E3 2012 study not included in this chart because that study did not itemize results. See page 47.
Municipal Utilities

Many municipal utilities offer a 11 credit for solar kilowatt-hours exported to the grid, a policy known as net metering. Review your municipal utility's solar policy to learn more. Always contact your municipal utility before installing solar to ensure you have up-to-date information on their solar policy and are in compliance with your utility's specific requirements.

- Bountiful
- Lehi
- Provo
- Kaysville
- Heber
- St. George
- Payson
- Santa Clara
- Murray
- Logan
- Washington
Current Logan City net metering policy:

**Customer charge:** none

**Energy rates:**
- First 400 kWh: 9.49 cents / kWh
- 401 – 1000 kWh: 11.62 cents / kWh
- 1,001+ kWh: 13.02 cents / kWh

**Required meters:** Bi-directional & Generation/Production
Municipal Solar Policies: Solar Charge

- **St. George:**
  - $15 monthly charge for all customers
  - Net metering with a Solar Reliability Charge of 2.3 cents / kWh generated

- **Santa Clara:**
  - Net metering with a ~$4/kW monthly charge for solar customers
Municipal Solar Policies: Feed In Tariff

- **Bountiful:**
  Feed in Tariff:
  - $6 monthly charge for all customers
  - Midnight – noon: 4 cents / kWh
  - Noon – 4PM: 6 cents / kWh
  - 4PM – Midnight: retail rate (9.25 cents / kWh)

- **Lehi:**
  - <10 kW: net metering
  - Additional Feed in Tariff: 4-5 c/kWh

- **Heber Light & Power:**
  - $12.70 monthly charge for all customers
  - Additional Feed in Tariff: 6 c/kWh
Municipal Solar Policies: Solar Export Credits

• **Provo:**
  Solar Export Credit
  • $10 monthly charge for all customers
  • 6.74 c/kWh for energy exported to the grid

• **Payson:**
  Solar Export Credit
  • $10 monthly charge for all customers
  • First 400 kWh: 7 cents / kWh
  • 400 – 800 kWh 8.4 cents / kWh
  • 801+ kWh: 8.9 cents / kWh

• **Kaysville:**
  Solar Export Credit
  • $8 monthly charge for all customers
  • 6.6 cents /kWh
Rocky Mountain Power:

- $6 monthly charge for all customers ($8 minimum bill)
- Net metering customers are grandfathered until 2036
- “Transition customers:” grandfathered until 2032:
  - Solar export credit: 9.2 cents / kWh through ~2020
- “Post-transition customers:” in 2020?
Principles to Consider

• Simplicity, understandability, public acceptability, and feasibility
• Effective cost recovery for the utility
• Stability from year to year (for customers and the utility)
• Fairness to all customers
• Send price signals to discourage wasteful use
• Harness the power of new technologies
EMBRACING NEW TECHNOLOGIES = AIR QUALITY & ECONOMIC BENEFITS FOR UTAH

MY ENERGI LIFESTYLE

More than ever, cars are sharing the same energy source as the home. The average American home uses over 11,000 kWh of electricity every year. But we can do something about it.

Recent technology advancements and utility trends have enabled a typical American middle-class family to significantly reduce their electricity bills and CO₂ footprint by integrating a plug-in vehicle, energy-efficient appliances and a renewable energy source.

Behind all these products is the power cloud computing that takes advantage of lower off-peak electric rates.

Georgia Tech’s modeling* predicts these green home improvements could result in:

- ENERGY COSTS reduced by 60%
- CO₂ WASTE reduced by 50%

*Comparing 1995 appliances and a 25mpg vehicle to 2012 appliances and a Ford C-MAX Energi plug-in hybrid vehicle with Value Charging.

Source: America’s Power Plan
REIMAGINING & REINVENTING OUR ENERGY SYSTEM
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