



U.S. Solar Market Post 2016: Deployment and Employment

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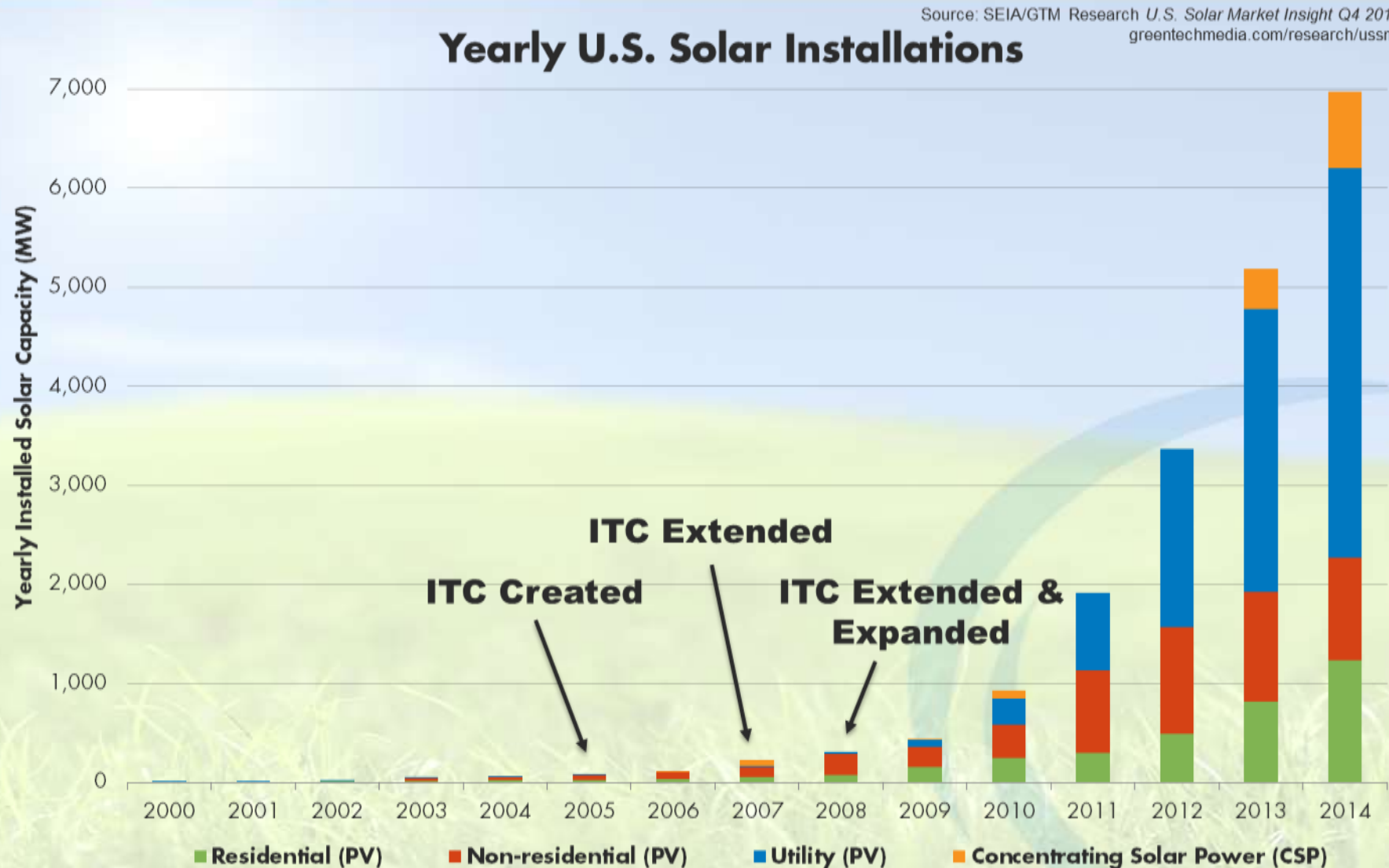
Background

- Two federal investment tax credits (ITCs) for solar property

Credit	Application	Current Level	Level after December 31, 2016
Section 25d	<ul style="list-style-type: none">• Residential direct ownership	30%	0%
Section 48	<ul style="list-style-type: none">• Commercial Direct Ownership• Commercial TPO• Utility• Residential TPO	30%	10% (Permanent level in statute)

- Under current policy, systems must be online before the end of 2016

Recent U.S. Solar Deployment



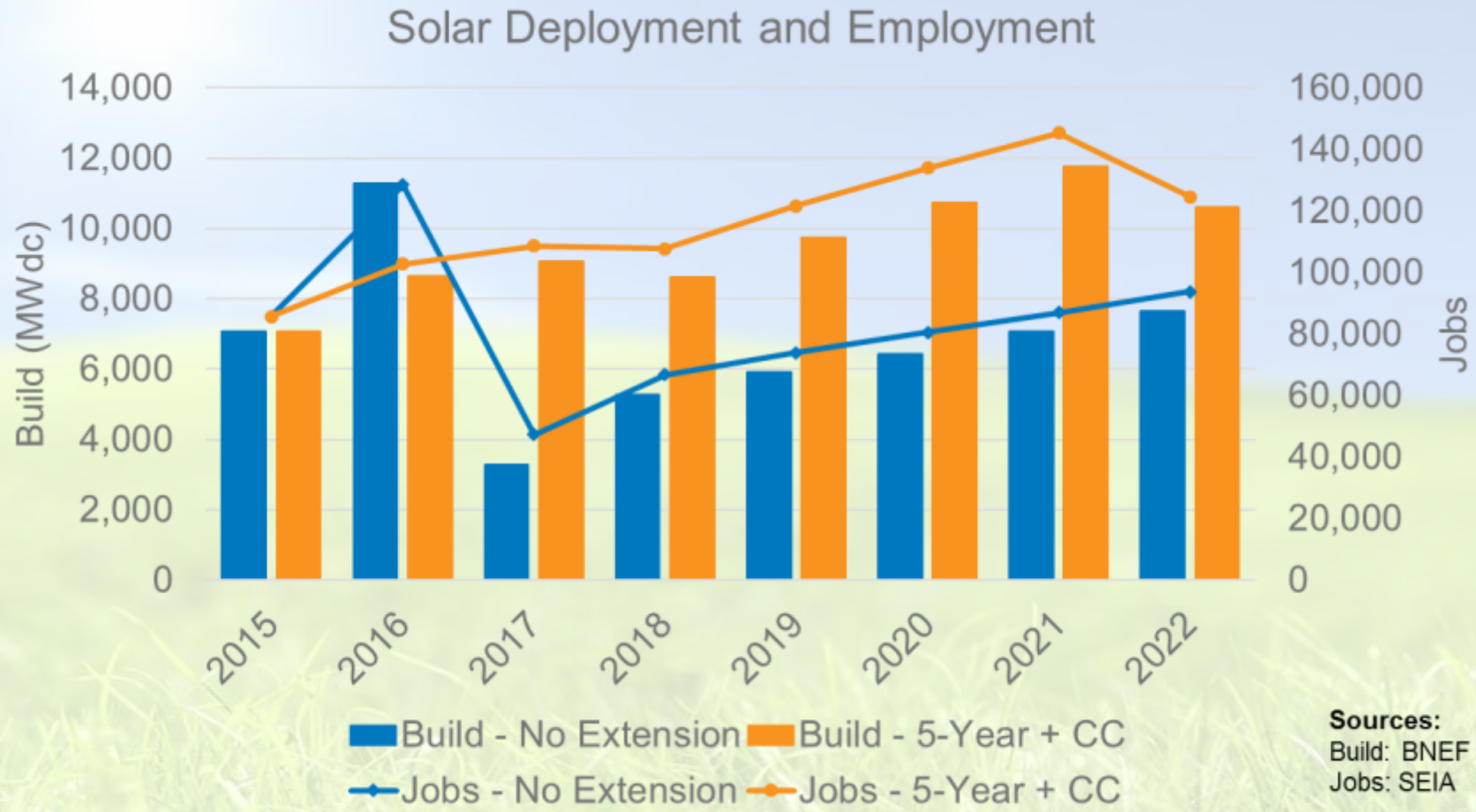
Analysis

- SEIA commissioned Bloomberg New Energy Finance (BNEF) to analyze demand (deployment) for solar energy systems under two scenarios. Forecast completed mid-August 2015.
 - Scenario 1: Current Policy where the credits drop as written in current statute
 - Scenario 2: A 5-year extension at 30% is enacted along with a “commence construction” provision for the section 48 credit. (Intervention assumed before 2H 2016.)
- SEIA analyzed *demand-side* employment impacts by running BNEF’s results and inputs through the PV Jobs and Economic Development Impact (JEDI) model—a derivative of IMPLAN— developed by NREL.
 - Note: The employment estimates derived from this analysis do not include manufacturing or other up-stream jobs. Thus, these figures cannot be compared to The Solar Foundation’s National Solar Jobs Census.

Deployment by Market Segment and Scenario

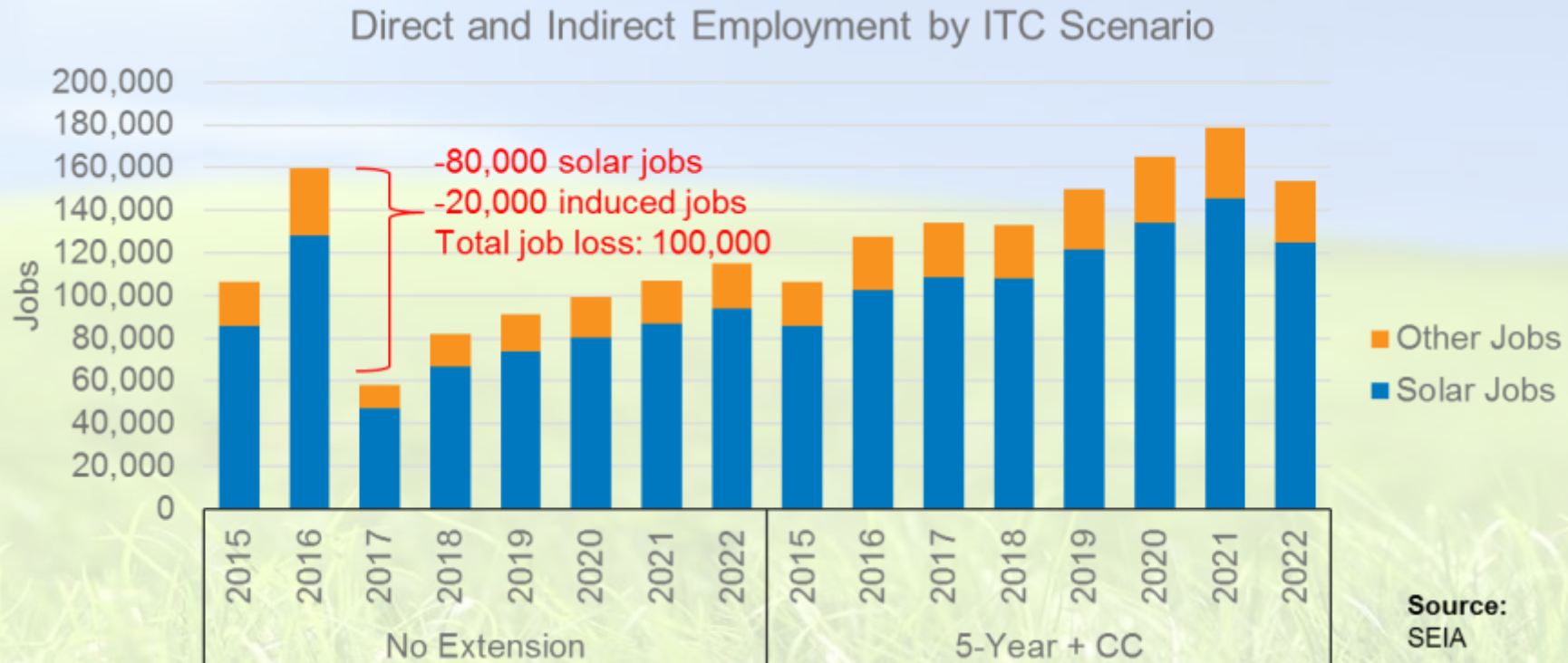


Deployment and Employment



Industry Employment and Broader Impacts

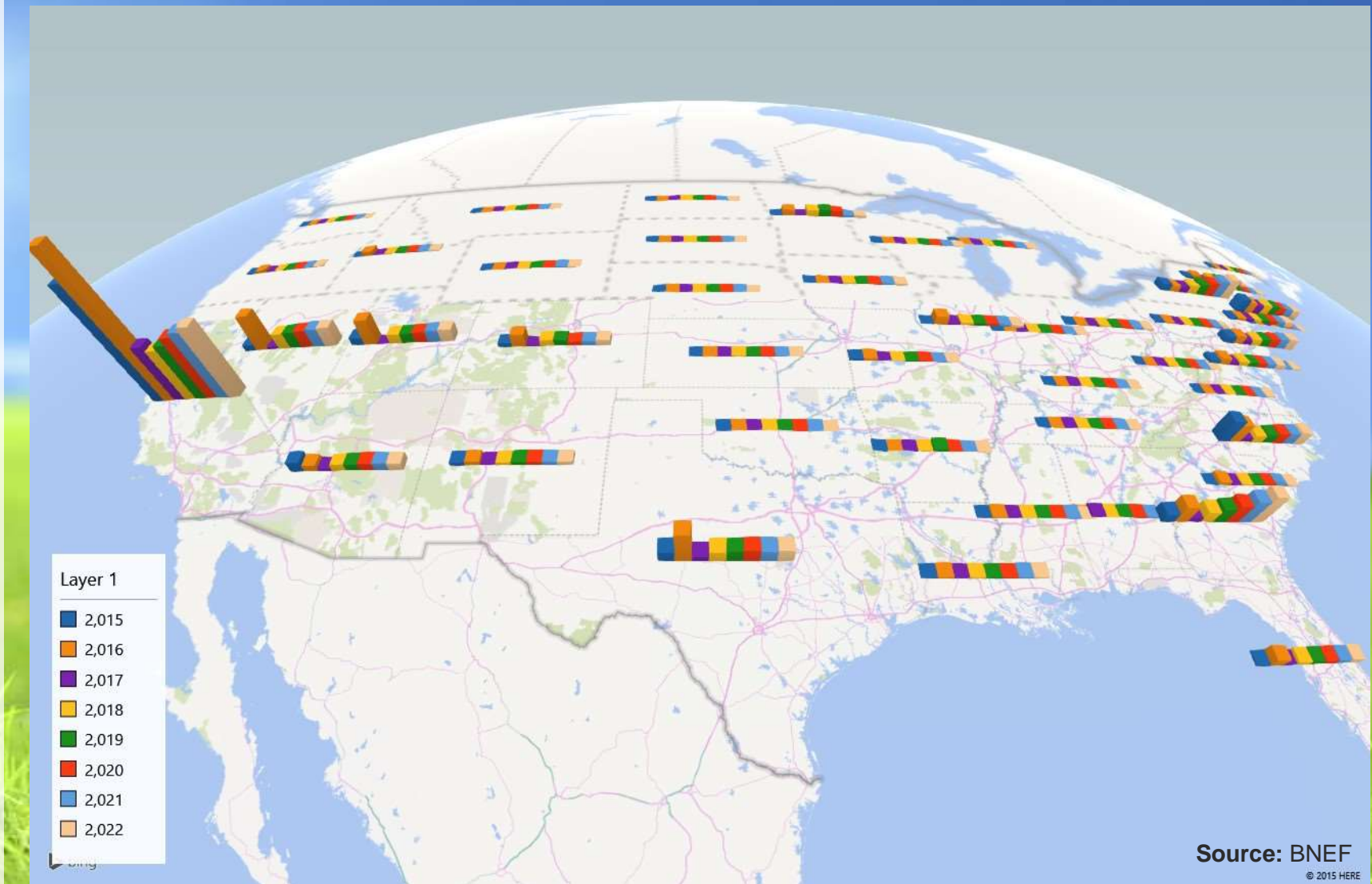
- Jobs in the solar industry support additional jobs in the broader economy. These are largely service sector jobs that support the industry and solar workers.



Deployment Under Current Policy

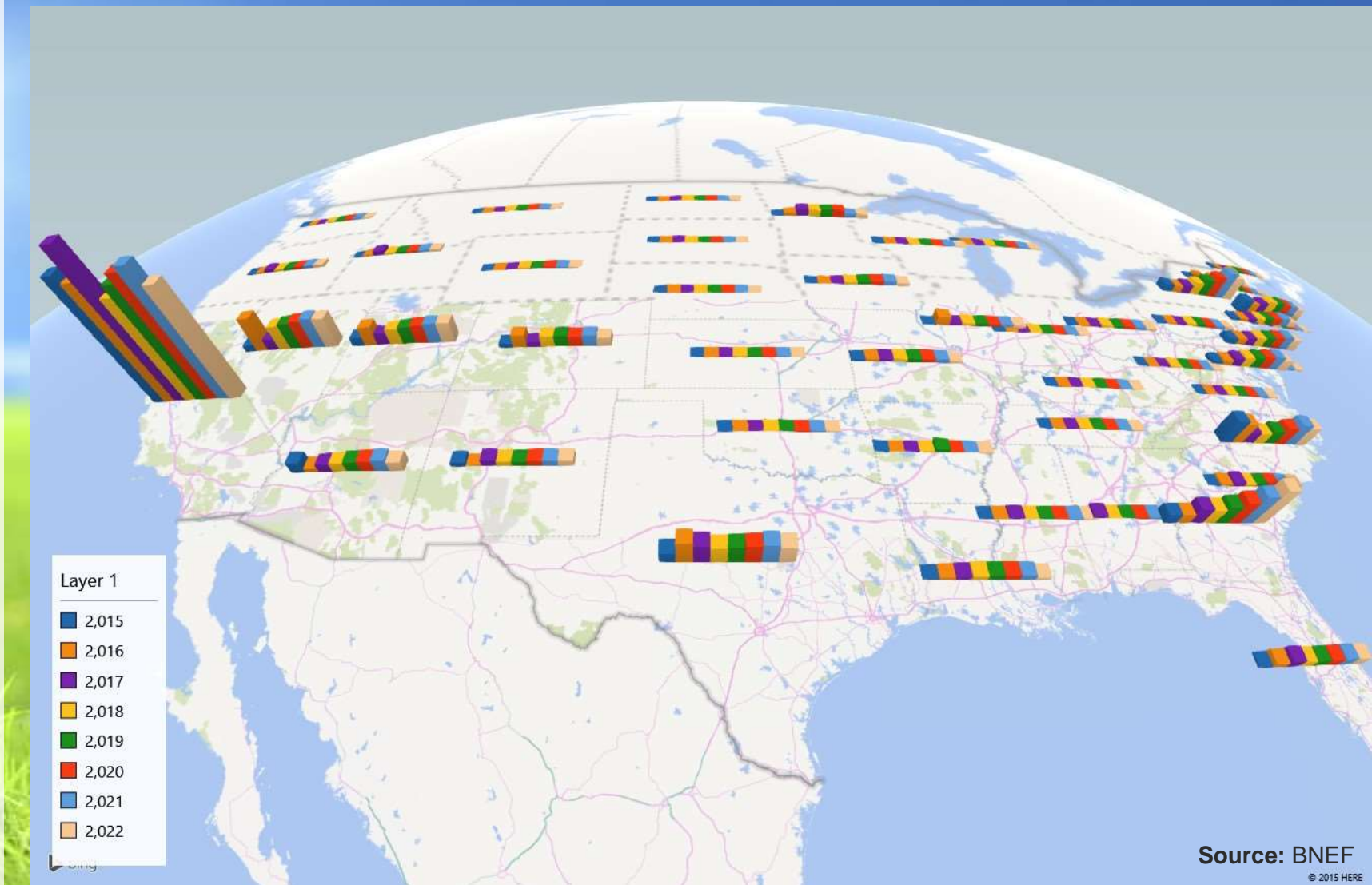
ITC Drop in 2016 (All Market Segments)

- Dramatic drops from 2016 to 2017 in:
 - California
 - Nevada
 - Utah
 - Texas
 - North Carolina
 - Florida



Deployment with 5-Year ITC Extension + Commence Construction for 48c (All Market Segments)

- ITC by mid-2016 eases pressure to complete jobs by the end of the year.
- Some 2016 projects extend in to 2017.
- Additional growth seen in nearly every state 2017-2022 with extension.
 - +22 GW by 2022 vs no extension



Thank you

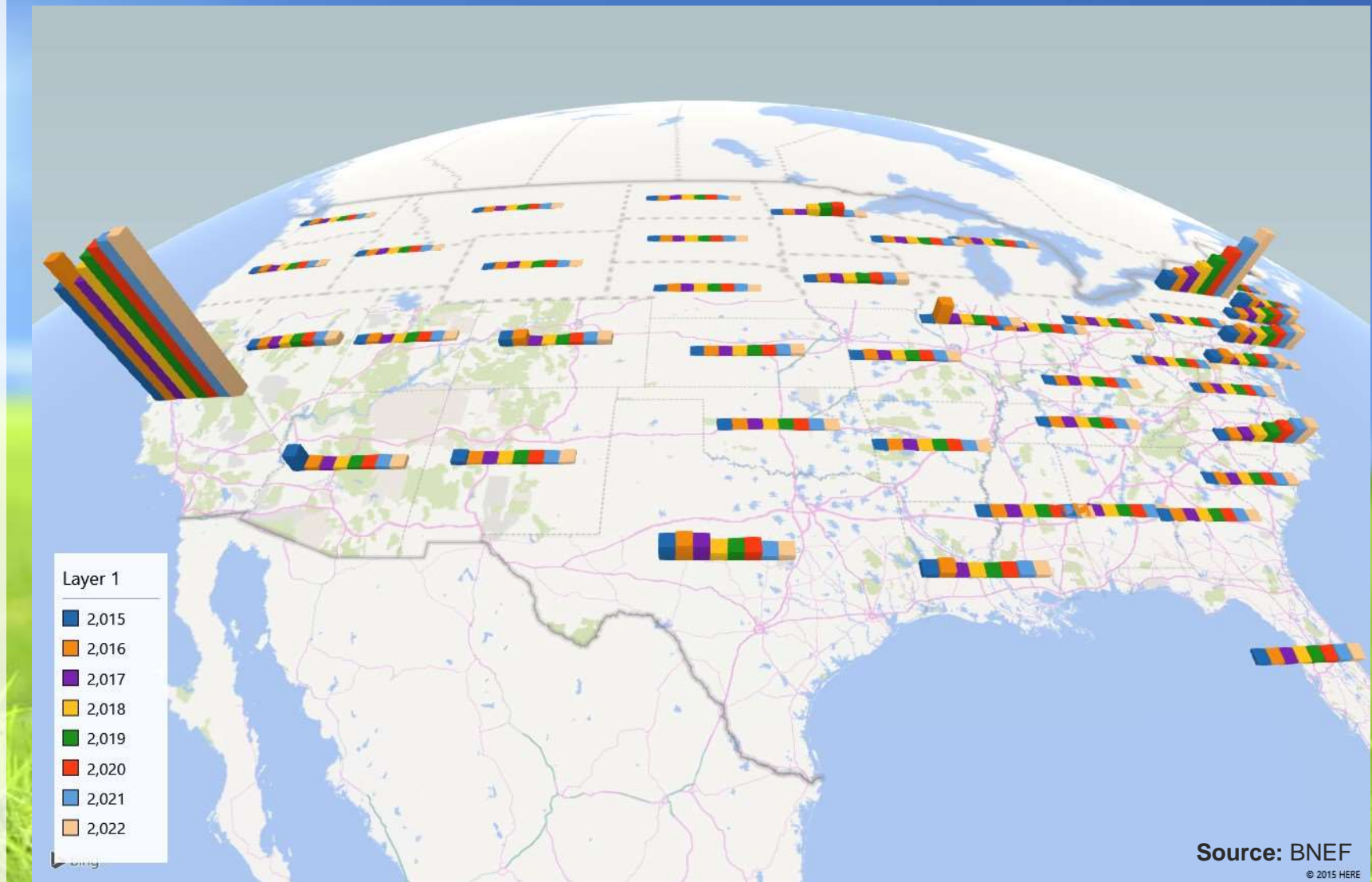
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Deployment Under Current Policy

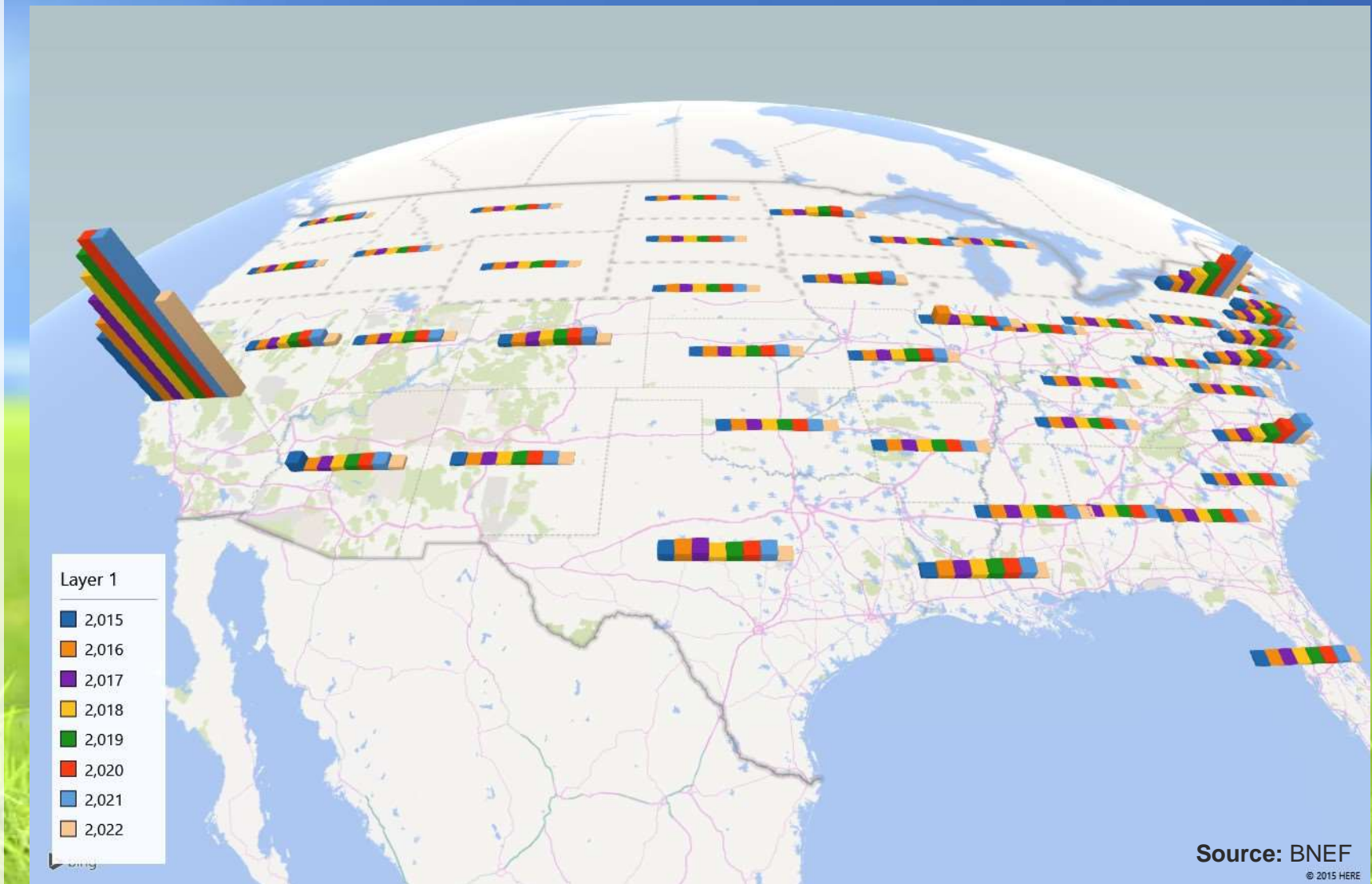
ITC Drop in 2016 (Residential)

- While residential appears somewhat resilient in several states, there is significant downside risk from NEM and rate design changes that an ITC extension would mitigate.



Deployment with 5-Year ITC Extension + Commence Construction for 48c (Residential)

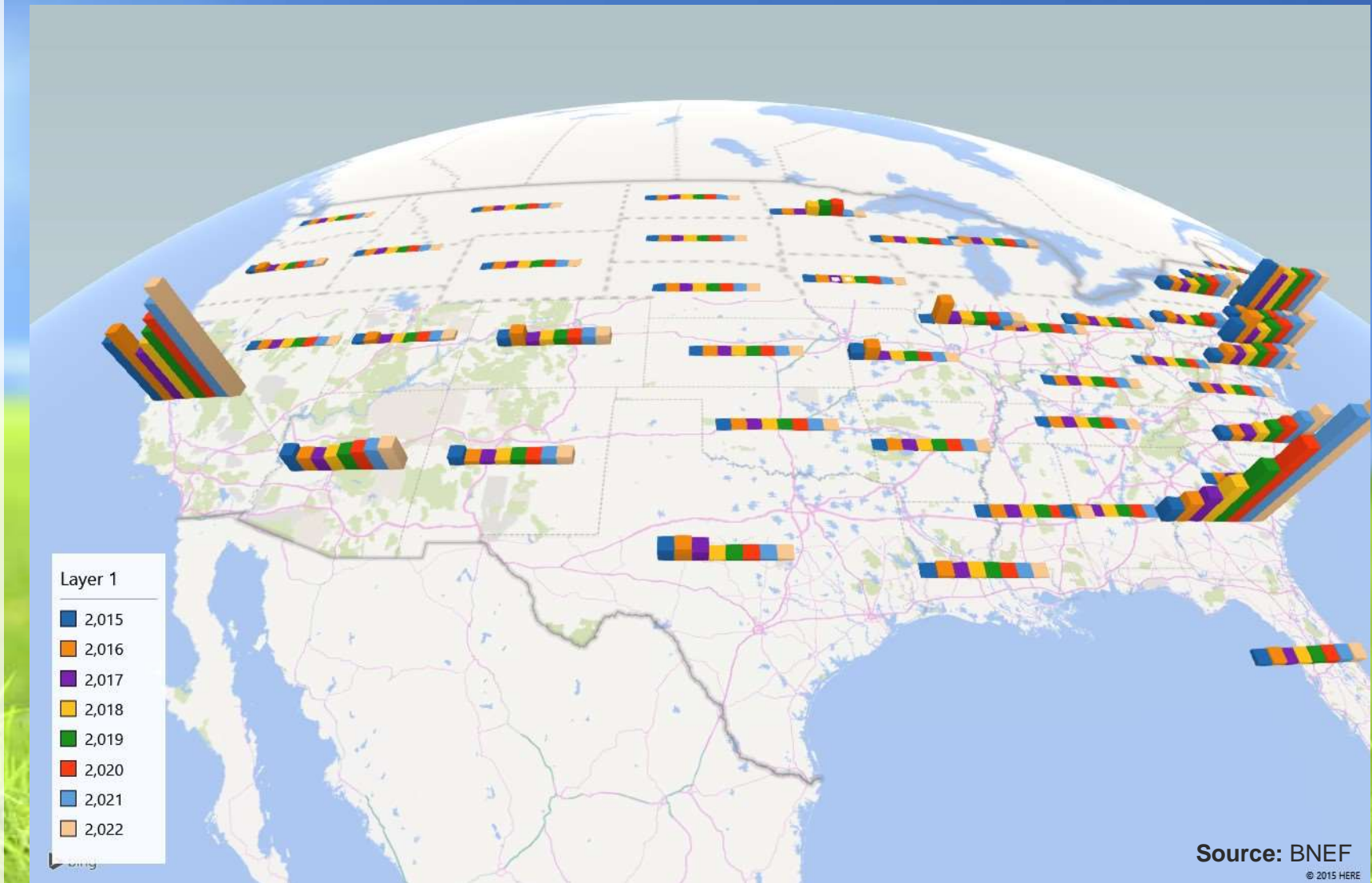
- Nearly 7 GW more residential PV installed by 2022 with extension of ITC



Deployment Under Current Policy

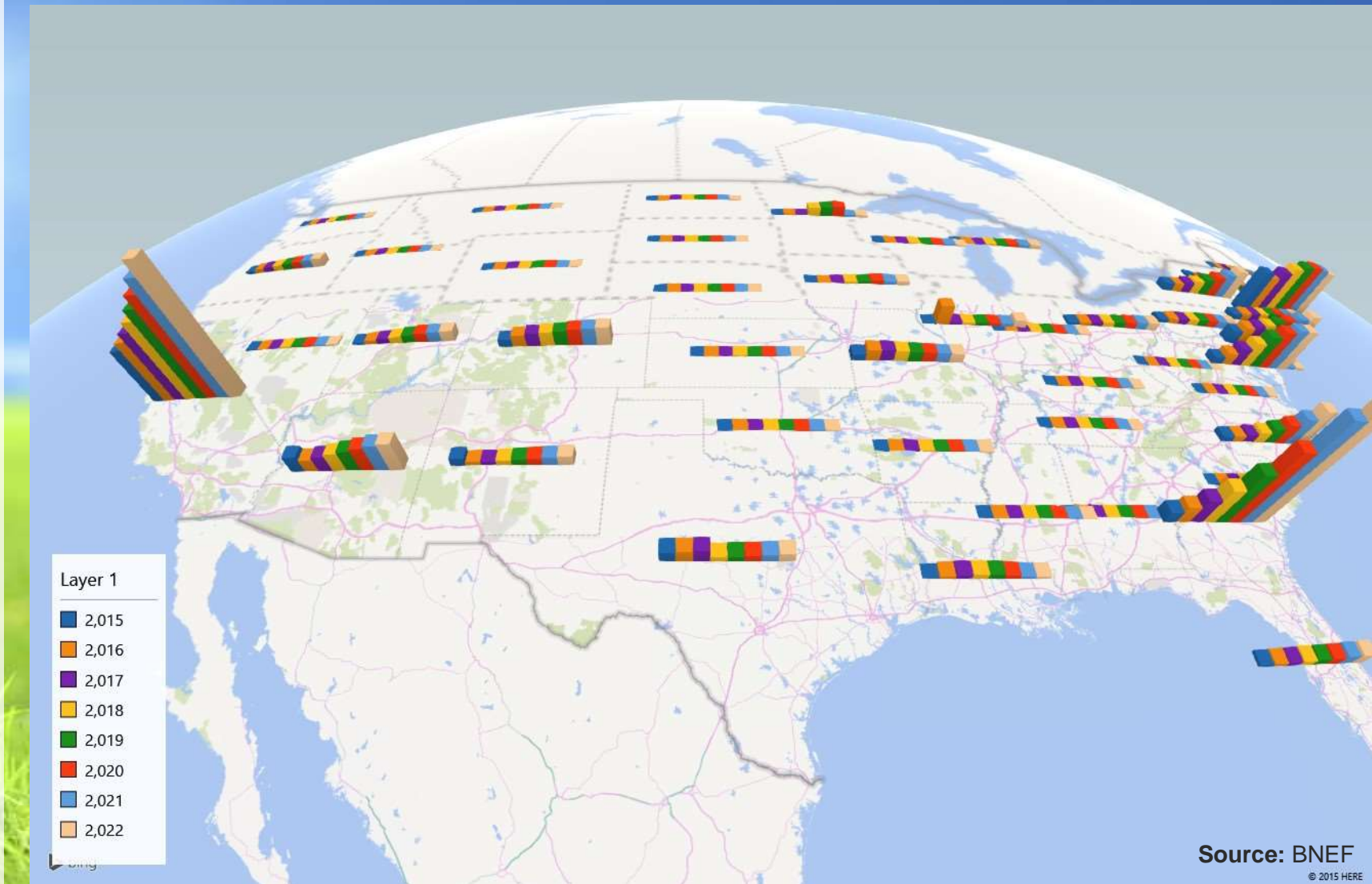
ITC Drop in 2016 (Commercial)

- Several states see significant drops in 2017 while others plateau through 2022.
- Downside risk from financing challenges made worse by drop in ITC.



Deployment with 5-Year ITC Extension + Commence Construction for 48c (Commercial)

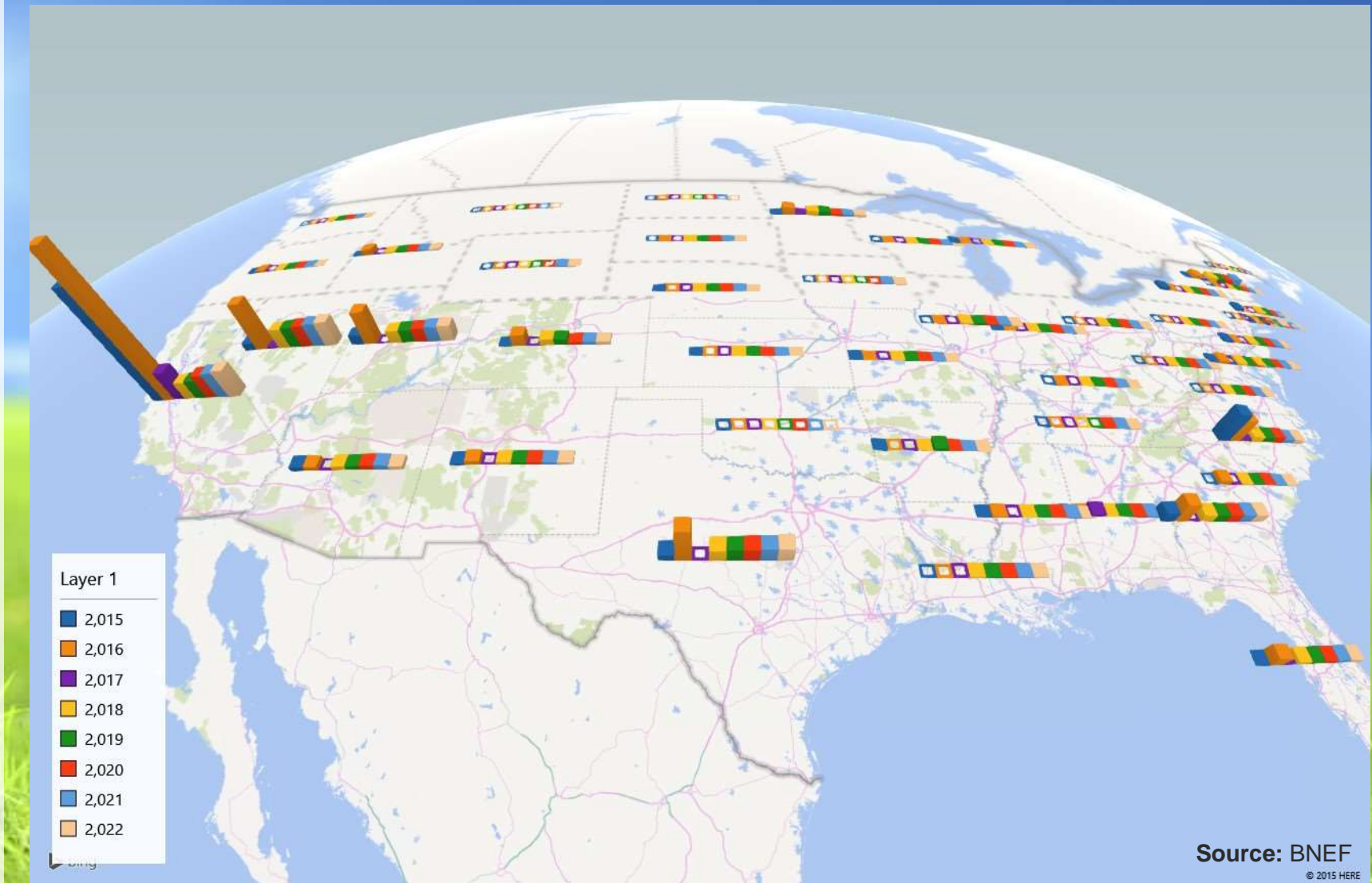
- Commercial installations see an additional 5 GW of deployment through 2022 with ITC extension.
- Commence construction provision reduces uncertainty in 2021.



Deployment Under Current Policy

ITC Drop in 2016 (Utility)

- Utility shows the most severe drop-off in 2017 with declines in every state.
- New development activity is on hold while developers focus on project completion before the end of 2016.



Deployment with 5-Year ITC Extension + Commence Construction for 48c (Utility)

- Extension by mid-2016 eases pressure to complete jobs by the end of the year.
 - Some 2016 projects extend in to 2017.
 - Effect of pipeline depletion still felt in 2018
- Utility helped most by extension with an additional 10 GW vs no extension scenario

