



Finding the Sunny Side of Net Metering: NHEC's Innovative Approach

Presented by Kenneth Colburn
(NHEC Board Member; *Speaking as an Individual*)

***Innovative Clean Energy Strategies
of Rural Electric Cooperatives***

Environmental and Energy Study Institute
July 30, 2015

As Solar Power Grows, Dispute Flares Over U.S. Utility Bills

Electric power companies challenge "net metering" policies, say

HECO files with regulators to cut solar net metering rates in half

By [Herman K. Trabish](#) | July 2, 2015 [print](#)

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Solar firms, power companies battle over 'net metering'

[Javier E. David](#) | [@TeflonGeek](#)
Sunday, 12 Oct 2014 | 11:09 AM ET

Kaysville residents angry after city could sue for solar credits

NV Energy wrestles with solar boom as state net metering cap looms

By [Herman K. Trabish](#) | July 17, 2015 [print](#)

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regulators this top solar owners ated electricity end to the grid. n monthly bill

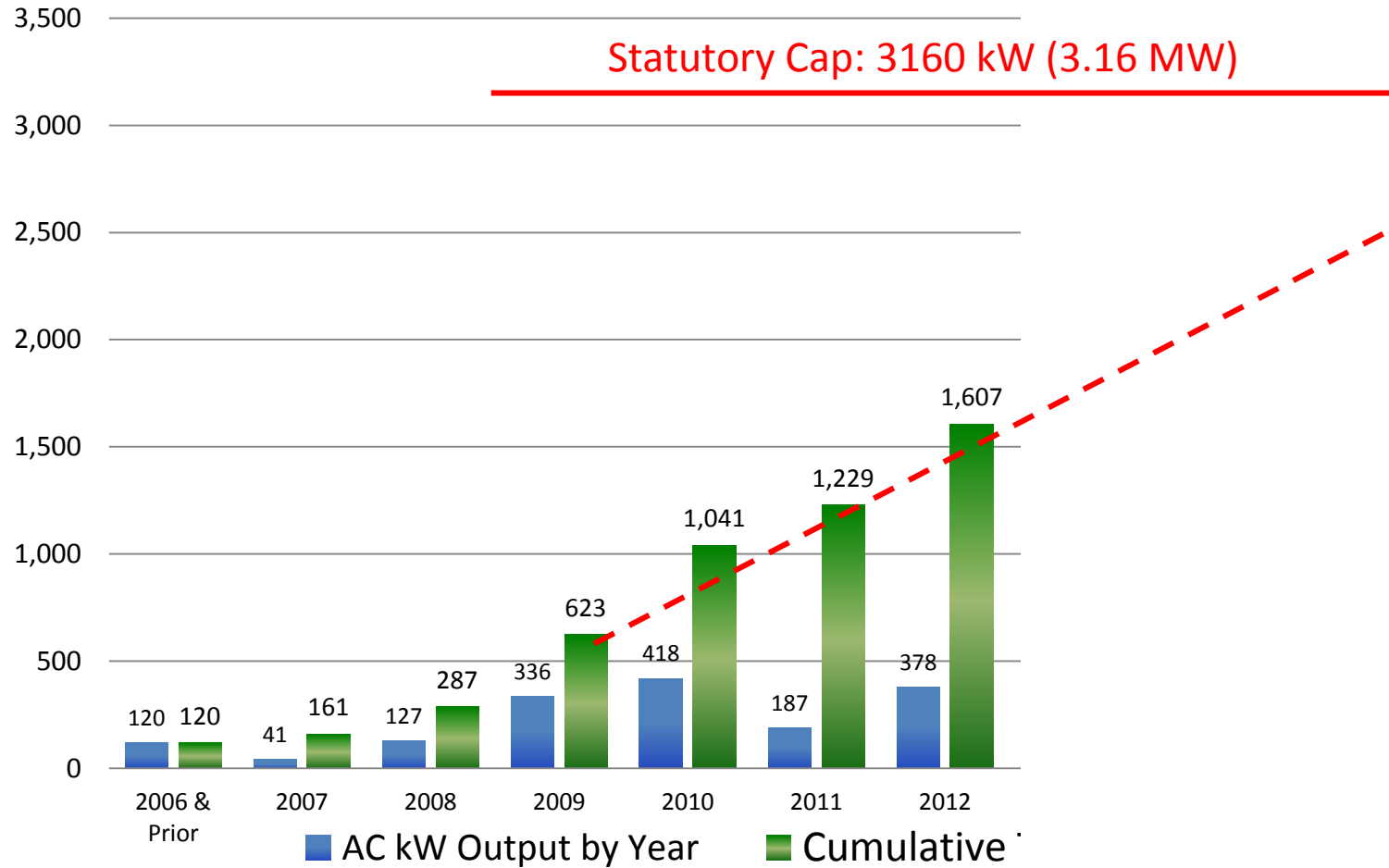
NH Electric Cooperative Overview

- 83,000 member-owners across 115 towns
 - 2nd largest utility in NH
- ~\$150 million revenue
- ~180 MW peak; ~800 million kWh/year
- ~5,500 miles of lines; ~14 members/mile
- Distribution-only (no G&T)
- Mostly not subject to PUC regulatory oversight

Net Energy Metering (NEM) in NH

- NH RSA 362-A:9 statute (1998+)
 - NHPUC 900 rules
- 50 MW net metering cap statewide
 - NHEC share = 3.16 MW
- NHEC Net Metering Payments:
 - <100kW: Full retail (~13¢/kWh summer)
 - >100kW: Avoided energy only (~7¢/kWh summer)
- *Problem: Who maintains the poles and wires if coops pay full-retail for NEM?*

NHEC Net Metered Capacity (AC kW)



7/14/2015

“Houston, We Have a Problem”

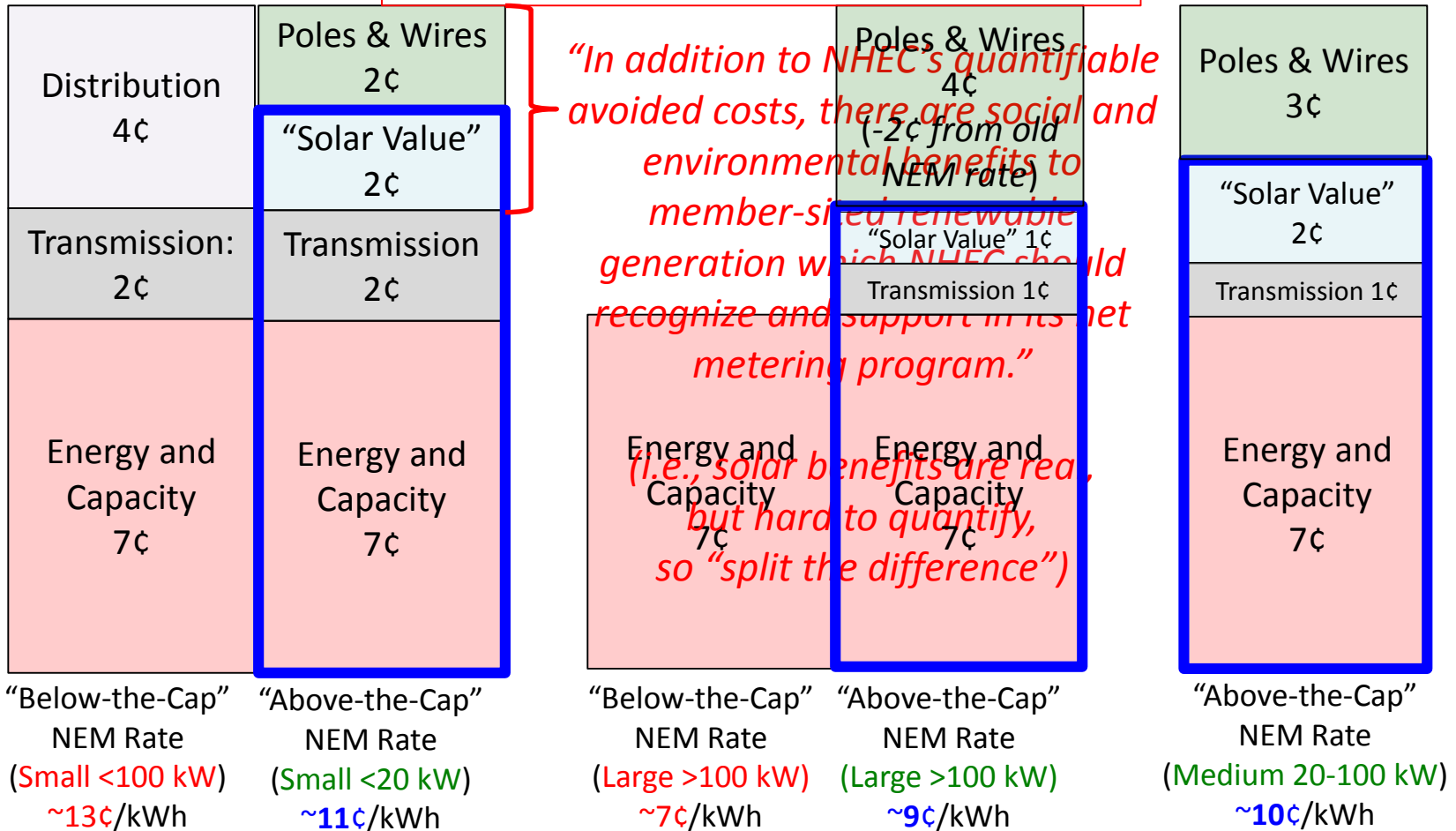
- Clean energy advocates aware NHEC near cap
 - Initiating legislative effort to raise NEM cap
 - “Wrong answer”
- Very strong support for NEM and Renewable Energy among NHEC members
- State law completely silent about NEM once “above-the-cap”
- *What to do?*

“No, We Have an *Opportunity!*”

- Without statutory direction or PUC regulation, NHEC “free to do what’s in members’ interest”
 - *What do members want?*
- Board, Management, and Legal Counsel...
 - Bought time by voluntarily raising cap to 3.40 MW
 - Considered multiple options
 - Consultant: Fixed charges, feed-in tariffs, TOU rates, etc.
 - Met several times with interested members, advocates, and stakeholders
- *Focus of discussions: How to Both Encourage RE and Maintain the Distribution System?*

Old (Below Cap) vs. New (Above Cap) NEM Rates

All ¢/kWh values are merely illustrative!



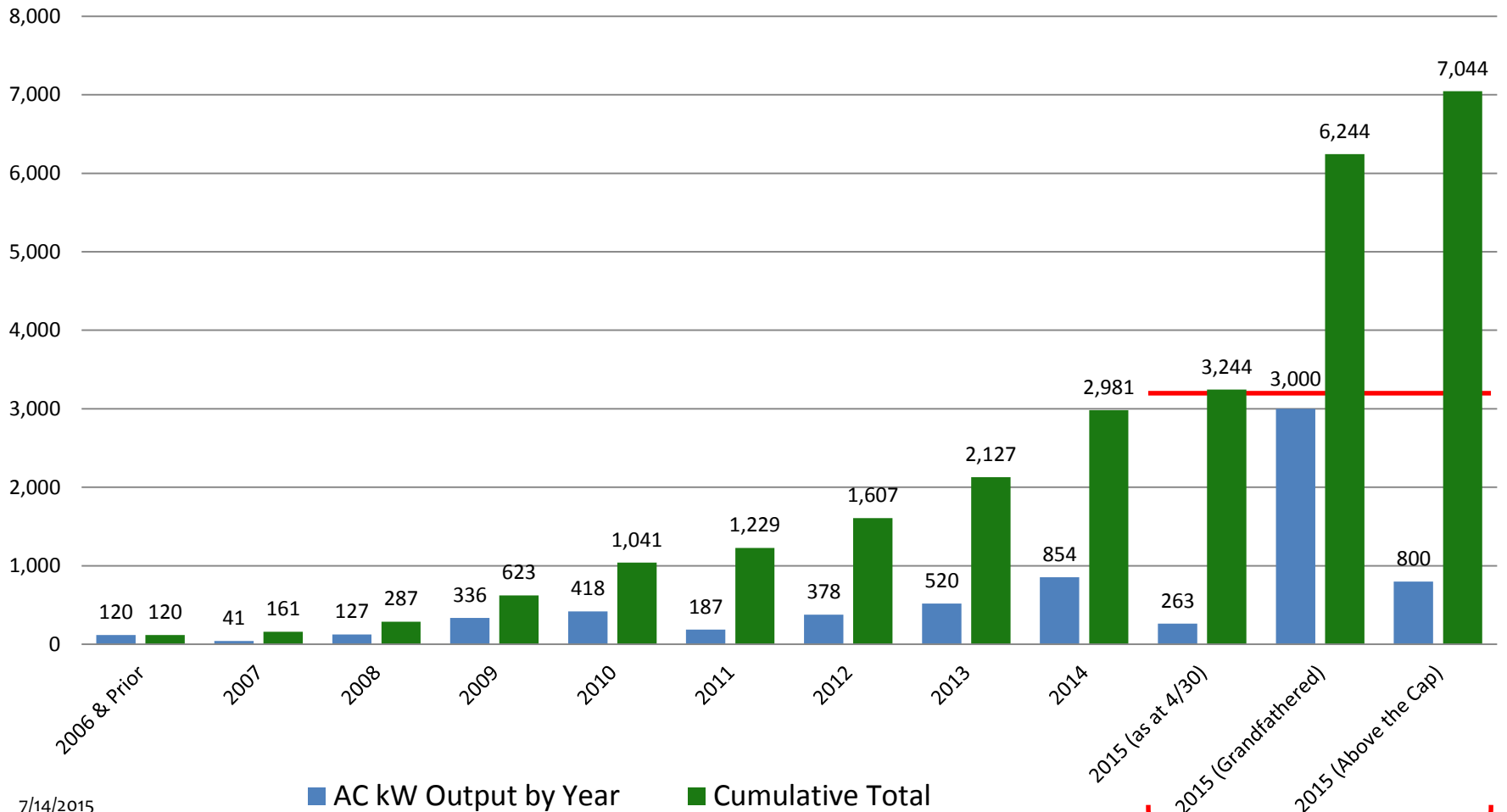
(i.e., solar benefits are real, but hard to quantify, so "split the difference")



But What Did Members/Advocates Get?

- NHEC Board NEM Policy Statement:
“A net metering program which fairly balances NHEC’s goal of encouraging member-sited renewable generation with NHEC’s goal of minimizing cost shifting will be sustainable in the long run, and if periodically adjusted, can make predetermined ‘caps’ unnecessary.”
- **Net Metering Cap Eliminated at NHEC.**

New Hampshire Electric Cooperative Net Metered Capacity (AC kW)



7/14/2015

■ AC kW Output by Year ■ Cumulative Total

2015 = 4063 (so far)



Unexpected Serendipity

- “We found that, on average, we could attribute an **increase in usage** of about 52% to the PV accounts.”
 - Nice surprise; not yet clear why
 - Best guess: Heat pumps replacing fossil-fuel HVAC
- What are the **actual dollars** we’re talking about?
 - Nameplate x (Hours x Capacity Factor) x ¢/kWh
 - 6244 kW x (8760 x 25%) x **4¢ (@full-retail)** =
~\$550K (not counting value of RECs) = <0.37% of revenues
 - Get 52% of that back => ~\$263K (not counting value of RECs) = **<0.18% of revenues**

Conclusions

- Other NH utilities are now meeting their NEM caps too
 - Regulators/advocates/utilities looking to NHEC's innovative solution as “guidance” or “example”
 - So, NHEC's initiative may help establish state policy
 - “The best way to predict the future is to create it.”
- **Keys to this leadership opportunity:**
 - **NHEC's willingness to take the initiative**
 - **The flexibility provided by cooperatives' member governance (i.e., cooperative business model)**

Thank You for Your Attention!

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