ELECTRICITIES of NORTH CAROLINA, INC.

Renewable Generation Billing Methods Pineville, NC

July 27, 2026

Renewable Generation Billing Methods

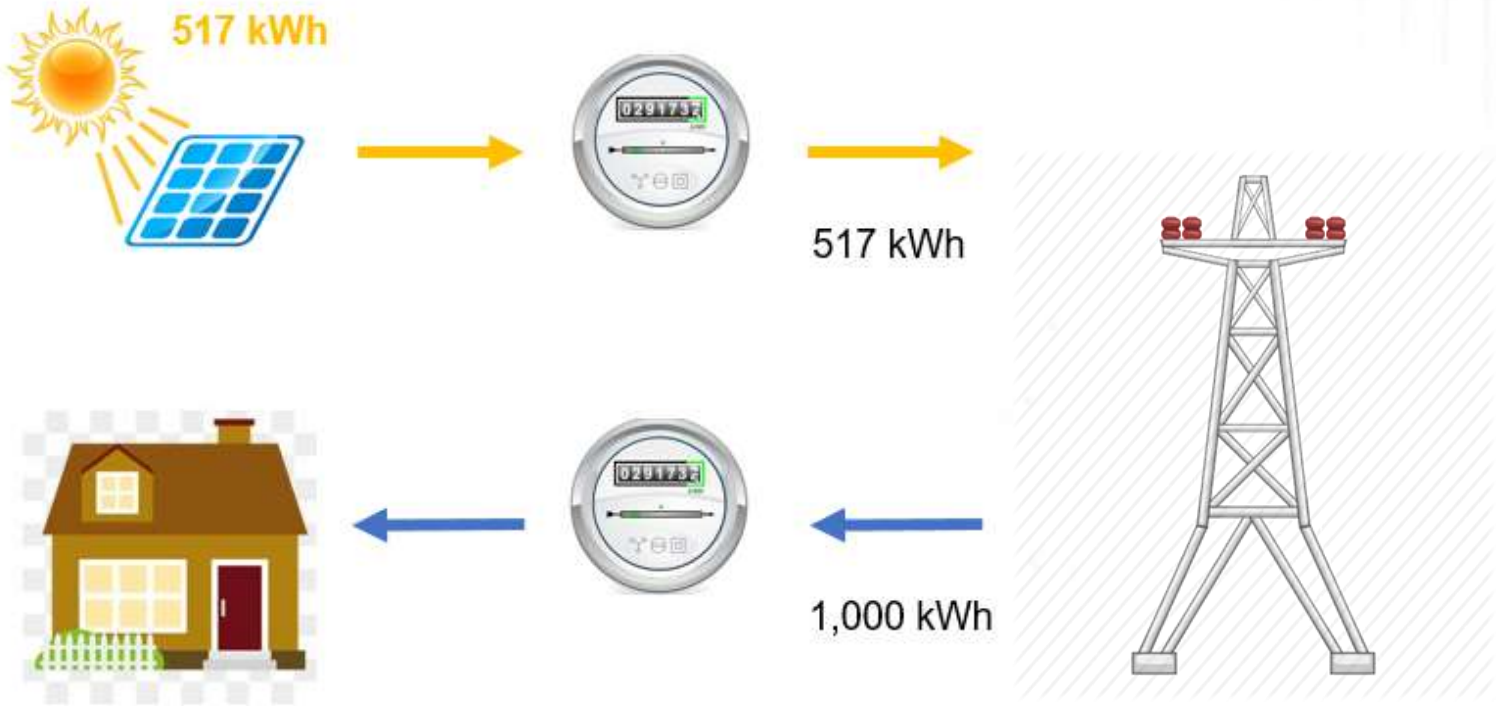
- Buy – All / Sell – All (BASA)
- Net Metering (NM)
- Net Billing (NB)

Important Concept

Avoided Costs:

- Utilities can buy energy from a solar customer or the grid.
- The calculated cost to buy it from the grid is the **Avoided Cost**
- Paying more than the avoided cost means the utility is overpaying
  - The utility could buy that kWh cheaper elsewhere

Buy – All / Sell – All (BASA)



1000 kWh

Total house consumption billed at retail rate

517 kWh

All solar output credited at avoided cost

***1,000 kWh Consumption**

***75% of Solar Output Actively Consumed**

Buy – All / Sell – All (BASA)

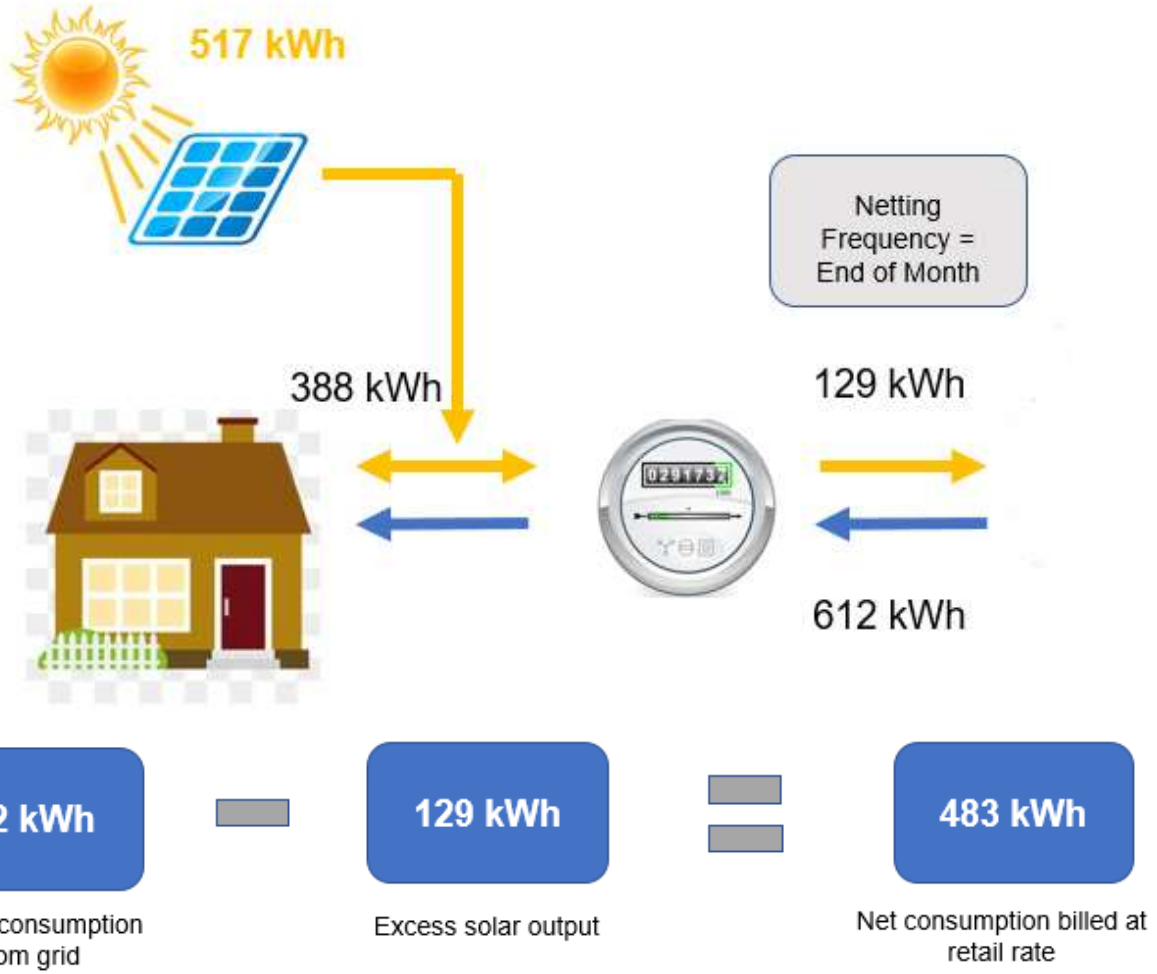
- Pineville's Current Renewable Generation Billing Method
  - Easy administration
  - Doesn't create a cross-subsidy
  - Meets Federal Requirements (PURPA)

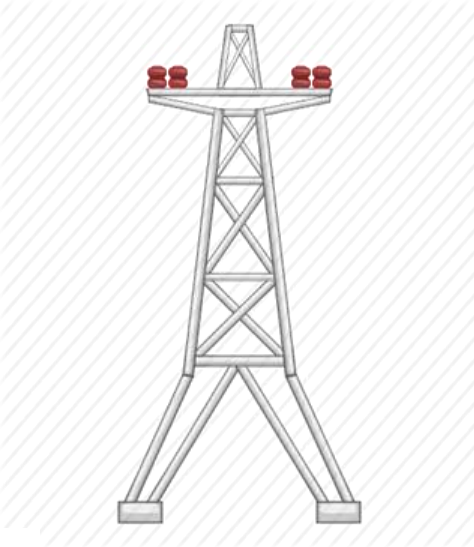
Buy – All / Sell – All (BASA)

- Key Advantages:
  - Simple to Administer
  - Consistent compensation rate for all solar generation
  - No changes needed to retail rates to recover fixed costs

- Key Disadvantages:
  - Customers cannot directly offset their own usage
    - Does not allow customer to reduce retail load by self generation
  - Lower customer return for solar
  - Increased risk of illegal wiring for self consumption
    - if BASA not considered economical option for customers

Net Metering (NM)





***1,000 kWh Consumption**

***75% of Solar Output Actively Consumed**

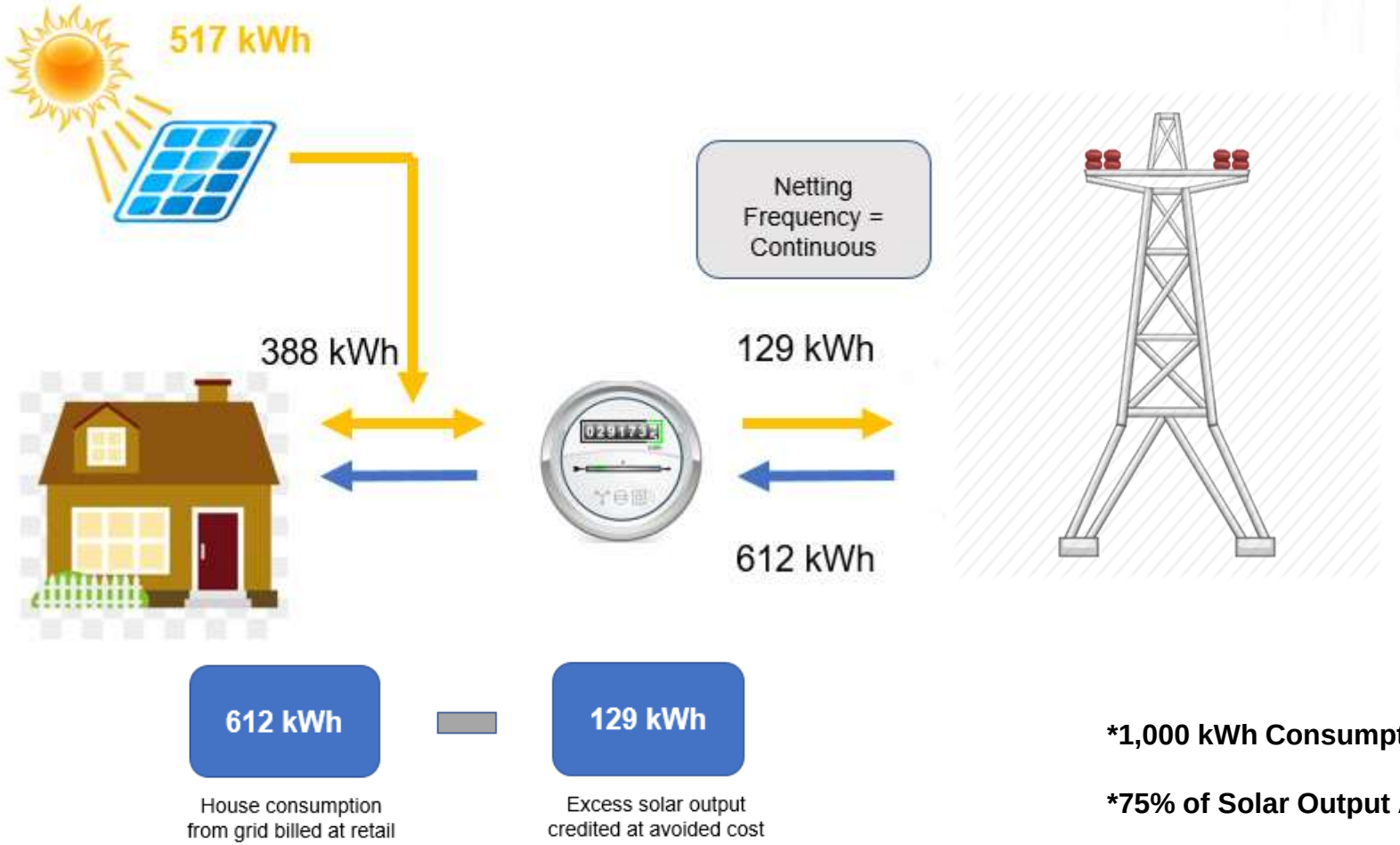
Net Metering (NM)

- Customer's solar production is used to offset own load
- Remaining (Net) usage is purchased from utility at retail rate.
- **Excess solar energy is effectively sold to the utility at the retail rate.**

Net Metering (NM)

- Key Advantages:
  - Allows customer to offset retail purchases by self generation
  - Solar customers receive maximum return on their investment for excess
- Key Disadvantages:
  - Introduces cross-subsidies
  - Solar customers are overcompensated for excess solar output that is exported to the grid
  - Utility may not recover customer's fair share of fixed distribution costs unless retail rate structures are cost based (i.e. demand charges) or additional fixed charges are assessed to renewable customers
  - Can be complex to administer pricing of energy credits that are rolled over to subsequent months
  - Some complexity to process billing with multi-channel meter

Net Billing (NB)



***1,000 kWh Consumption**

***75% of Solar Output Actively Consumed**

Net Billing (NB)

- Same Design as Net Metering
- Excess renewable energy is sold to the utility at the utility's avoided cost rate.

Net Billing (NB)

- Key Advantages:
  - Allows customer to reduce retail purchases by self generation
  - Consistent compensation for all solar generation
  - Solar customers are compensated based on the actual value to the utility

- Disadvantages:
  - Potential costs to upgrade customer's system
  - Utility may not recover customer's fair share of fixed distribution cost unless retail rate structures are cost based (i.e. demand charges) or additional fixed charges are assessed to renewable customers.
  - Can be complex to administer pricing of energy credits that are rolled over to subsequent months

Utility Cost Perspective

Utility Perspective	Number of kWh 'Bought' from Customer	Cost to Buy from Grid	Cost to Buy from Customer	Added Cost to Utility
No Solar	0	$ -	$ -	$ -
Buy All Sell All	517	$ 25.60	$ 25.60	$ -
Net Metering	129	$ 6.40	$ 14.57	$ 8.17
Net Billing	129	$ 6.40	$ 6.40	$ -

Customer Benefit Perspective

Customer Perspective	kWh Generated	kWh Used by Customer	kWh Sent to Grid	Compensation	Compensation Rate	Customer Credit	Net Bill
No Solar	0	0	0	N/A	0.00000	$ -	$ 117.30
Buy All Sell All	517	0	517	Avoided Cost	0.04951	$ 25.60	$ 91.70
Net Metering	517	388	129	Retail Rate	0.11270	$ 14.57	$ 55.47
Net Billing	517	388	129	Avoided Cost	0.04951	$ 6.40	$ 63.63

NCMPA1 Net Billing

- **Based on cost/benefit analysis Net Billing is recommended**
- Reduces potential cross-subsidy between customers
- Methods that do not adequately recover fixed costs of utility are not sustainable in the long term
- Most members, in both agencies, making changes to move away from Buy – All / Sell – All to Net Billing
- Some are adding fixed charges (such as a stand-by and supplemental charge per kW) to Net Billing riders to reduce cross subsidization by non-renewable customers when rate structures are not cost based

Choice of methodology depends on utility's assessment of financial stability, administrative impact, customer equity, and customer satisfaction

Questions ??

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