

80
YEARS

LPEA

La Plata Electric Association, Inc.

A Touchstone Energy[®] Cooperative 

Net Metering

LPEA BOD Meeting

January 16, 2019

Net Metering

- Required under Colorado Law
- Utility required to net usage
- LPEA purchases 120% less 100% usage at avoided wholesale
- Subsidy

Net Metering scenarios



Net Metering scenario 1

KWh Produced/Consumed simultaneously



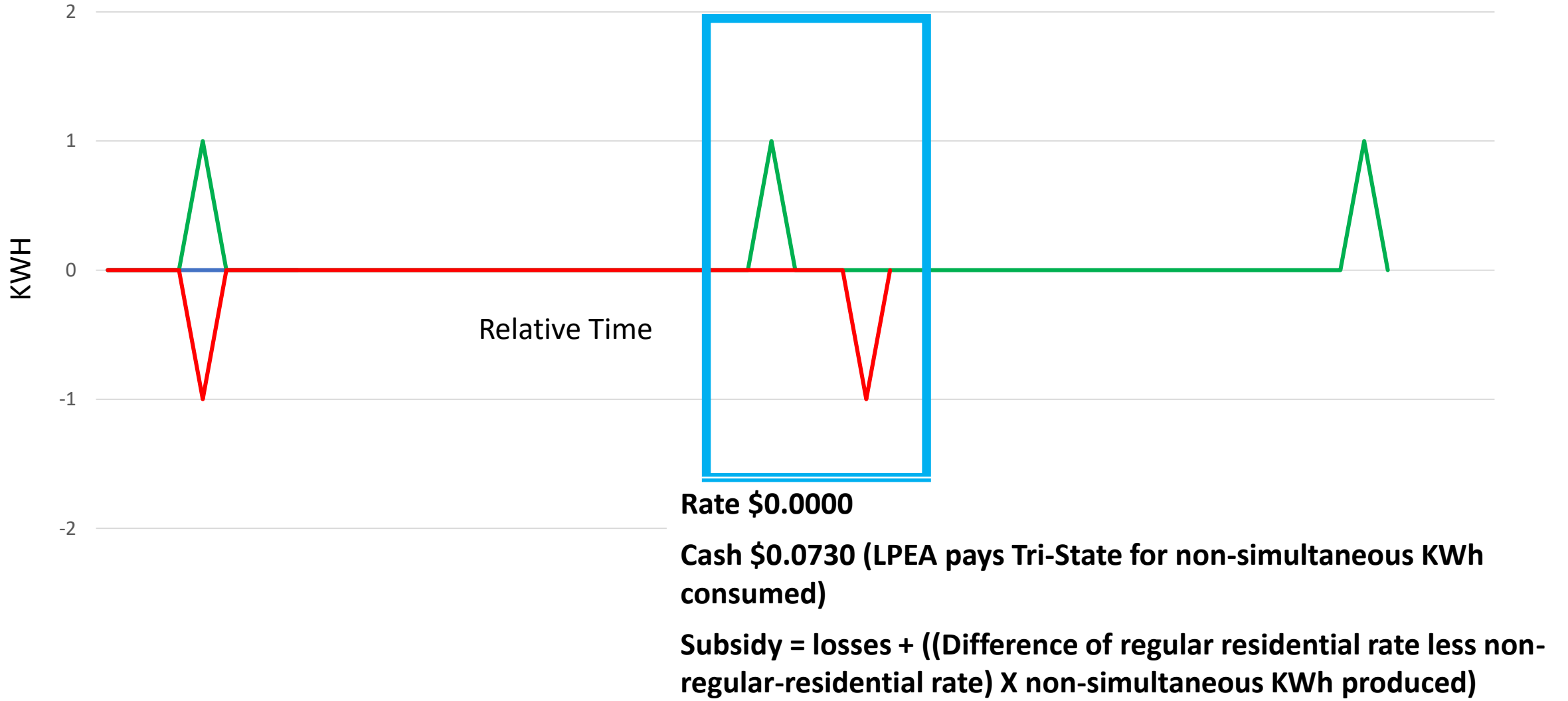
Rate \$0.0000

Cash \$0.0000

Subsidy = Issue of fixed costs in LPEA retail volumetric rate is rate design issue, not subsidy issue

Net Metering scenario 2

Non-simultaneous KWh Produced and Consumed



Net Metering scenario 3

KWh Produced/No consumption



Rate \$0.073

Cash \$0.073

Subsidy = TS cost less variable fuel and energy

Key Questions

- Scenario 2, when KWh produced and KWh consumed don't occur simultaneously, what happens to KWh produced? (Consumed by a different LPEA member.)
- Scenario 2, should LPEA value the KWh produced and not simultaneously consumed at LPEA's avoided wholesale cost? (No, LPEA isn't paying Tri-State or the producing member for the KWh. LPEA does, however, pay Tri-State for the non-simultaneous KWh consumed.)
- How should LPEA view the KWh produced not simultaneously consumed? (Like-for-like exchange or swap.)
- What is the appropriate way/formula to calculate net metering subsidy, if any?

Conclusions

- The simultaneous NM production of energy with energy consumed is no different than off-grid PV production.
- The non-simultaneous production of energy by NM accounts is energy that goes back onto LPEA's grid, consumed by other LPEA members, and is not purchased from Tri-State. LPEA is assuming all non-simultaneous produced KWh by NM accounts is subsequently consumed by other LPEA residential accounts.
- LPEA does not incur TS variable costs for swapped energy and therefore must reduce the TS avoided costs for the TS energy costs.
- LPEA is assuming all excess NM production occurs off-peak.

Calculating the subsidy for NM

- <LOSSES> NM non-simultaneous production X regular residential rate X 2%.
- <Scenario 2 estimated subsidy for reduction in rate in swapped KWh> Non-simultaneous net metered production X estimate of residential rate not on regular residential rate, (i.e., TOU) X difference between regular residential less off-peak TOU rate PLUS...
- <Settlement of excess NM production> Excess NM Energy cleared in April X TS avoided wholesale cost less variable fuel and energy.

Calculating the subsidy for NM

- $((7,587,967 \times 2\%) \times \$0.1256)$ PLUS...
- $((7,587,967 \times 10\%) \times (\$0.1256 - \$0.062))$ PLUS...
- $7,587,967 \times (\$0.073 - (\$15,113,548 / 314,130,487))$

- \$19,061 Losses
- \$48,259 Reduction of revenue recovery on swapped KWh
- \$189,699 TS Demand Costs
- TOTAL Annual Subsidy for Net Metering = \$257,019

Arguments against...

- Some have argued that once the meter spins backward, LPEA's loss of revenue is locked in at the retail rate times the KWh "lost" or "reversed".

RESPONSE - In net metered usage, both the simultaneous and non-simultaneous netting of KWh production and usage results in a net meter usage of zero. It is only when production exceeds usage that LPEA credits the producer at LPEA's avoided wholesale rate. There is no retail rate loss, in whole, in net metered usage. In effect, the NM provides a KWh of energy that another LPEA member consumes without LPEA having to pay TS for that energy unit.

Arguments against (continue)

- The reverse meter issue
 - Negated by subsequent sale of non-simultaneous KWh produced by NM account.
 - The removal of revenue by the state under the state statute might constitute a US Constitutional issue of a “taking”.