

Background for TVA Rate Change comments

- TVA's proposed Grid Access Charge (GAC) serves two purposes: to discourage energy efficiency and distributed energy resources (DER), and to perpetuate and expand a hidden subsidy to large industrial customers.
- TVA's proposed Rate Change will deliberately undermine the economics of solar for commercial & industrial customers – “The number of economic installations will decrease ~40%”
- <https://www.tva.gov/Newsroom/Press-Releases/TVA-Opens-Public-Comment-Period-on-Environmental-Assessment-for-Proposed-Rate-Change>
- **Comments due by April 9 to Matthew Higdon, mshigdon@tva.gov**
- Can send directly from our site:
https://secure.everyaction.com/vM5Bjh_bskO2ZGG83AV9Hw2
- *excerpts from various TVA presentations to TVPPA...*

We Have Reached Alignment

✓ Distributed Energy Resources:

- The market is changing
- DER presents a threat to our business model
- Current rates accelerate the issue
- Change is needed with wholesale and retail rates, and we need to move together

Move Together

✓ A change in load, should result in:

- A change in revenue, which
- Should equal the corresponding change in cost

Rate Alignment

[sic]

Benefits of Rate Restructuring

Essentially ALL “normal” large commercial customers would benefit economically from some amount of on-site solar installations

-Based on reasonable assumptions (cost of solar & current rates)

Recommended Rate Restructuring Benefits

- The number of economic installations decrease by ~40%
- Loss of fixed cost recovery is minimized by more than 50%

Changes at retail reduce of uneconomic DER penetration across the Valley

Changes at wholesale minimize cross-subsidies between LPCs

Modest reductions in rate levels and changes in structure dramatically reduce the risk of stranded cost and cost shifting

Market Demand – Commercial & Industrial Renewable Energy Goals

RE 100

- Committed to 100% renewable electricity
- 87 companies to date



Stated Renewable Energy Goals

- Publicly stated renewable energy goals, but not RE100 commitment



BUSINESS RENEWABLES CENTER

- Committed to accelerating procurement of wind and utility-scale solar energy
- 160+ members



REBA

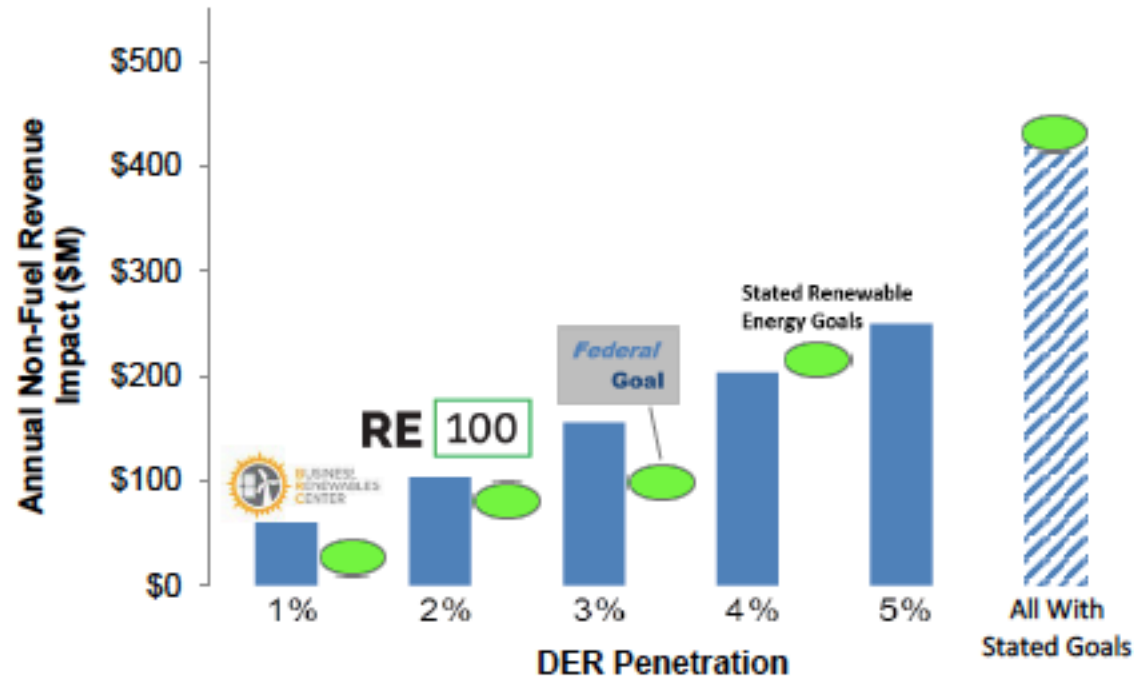
- Goal of growing corporate demand for renewables
- 58 signatures to date



- We consider this progress...

Companies are committing to renewable energy and they want to partner with utilities to develop solutions

Potential Revenue at Risk



- ...They consider it lost revenue.

- Among the subset of customers identified, non-fuel revenue loss could be up to \$500 million.
- While not all of these customers will choose to bypass, this population does not include all customers.

Current Example - Solar

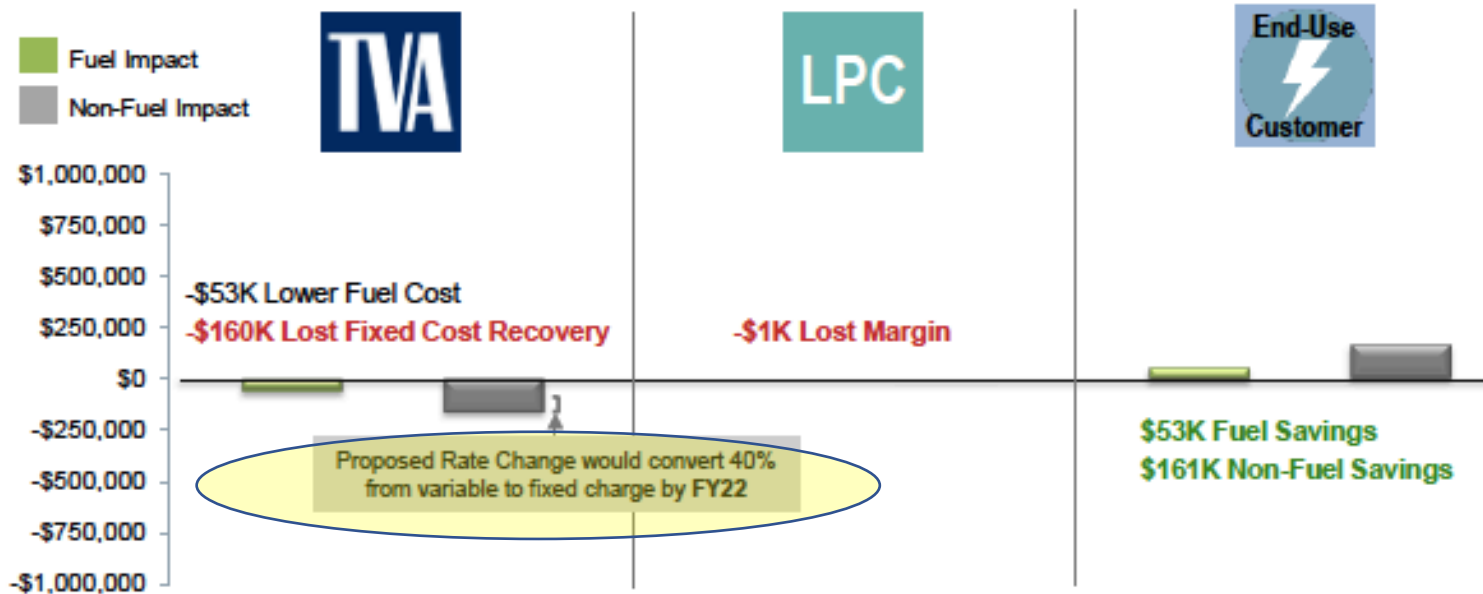


Solar Array for a GSA3 Customer

GSA3 Rate: 1-5 MW contract demand, LPC standard service billed

- 1,500 kW max output solar array
- 3,000 kW peak annual demand – customer

Illustrative
Max benefit
assumed
(current pricing)



- Their “solution” is to convert a substantial portion from variable to fixed charge.

Immediate beneficiaries are end-use customer and developer; minimal LPC margin impact
Mid/long term – lost fixed cost recovery will be reallocated to all customers

Current Example Summary



Lost Fixed Cost Recovery - Current Rate Structure			
DER Scenario	TVA/ Valley (000's)	LPC (000's)	End-User (non-fuel savings) (000's)
Solar	(\$160)	(\$1)	\$161
Lighting	(\$450)	(\$83)	\$532
CHP	(\$627)	(\$193)	\$820

Lost Fixed Cost Recovery - Proposed CTC Rate Structure 2022			
DER Scenario	TVA/ Valley (000's)	LPC (000's)	End-User (non-fuel savings) (000's)
Solar	(\$96)		
Lighting	(\$270)		
CHP	(\$376)		
LPC & End-Use impacts depend on local retail rate changes			

- The revenue risk is not shared equally by the LPCs.

Spectrum of Redesign Illustrations

Option 3

Least Constrained

Customer A - Coop
Heavy Residential

GSA3 – 10% Reduction

- **90%** of revenue shift to Residential – 0.7% increase
 - Customer Impact - \$1.18 increase to Customer Charge, or
 - \$0.00087 increase per kWh
- **10%** of revenue shift to GSA-1 – 0.6% increase
 - Customer Impact
 - \$0.80 increase to Customer Charge, or
 - \$0.00089 increase per kWh

Most Constrained

Customer B - Muni
Heavy GSA2/3

GSA3 – 1.0% Reduction

- **70%** of revenue shift to Residential – 0.7% increase
 - Customer Impact - \$0.90 increase to Customer Charge, or
 - \$0.008 increase per kWh
- **30%** of revenue shift to GSA-1 – 1.0% increase
 - Customer Impact
 - \$2.12 increase to Customer Charge, or
 - \$0.0015 increase per kWh

- “Revenue Neutral” to TVA implies additional “revenue shift” between customer classes at retail.

Wholesale Pricing Roadmap

Transition Wholesale Rate Trajectory

2018

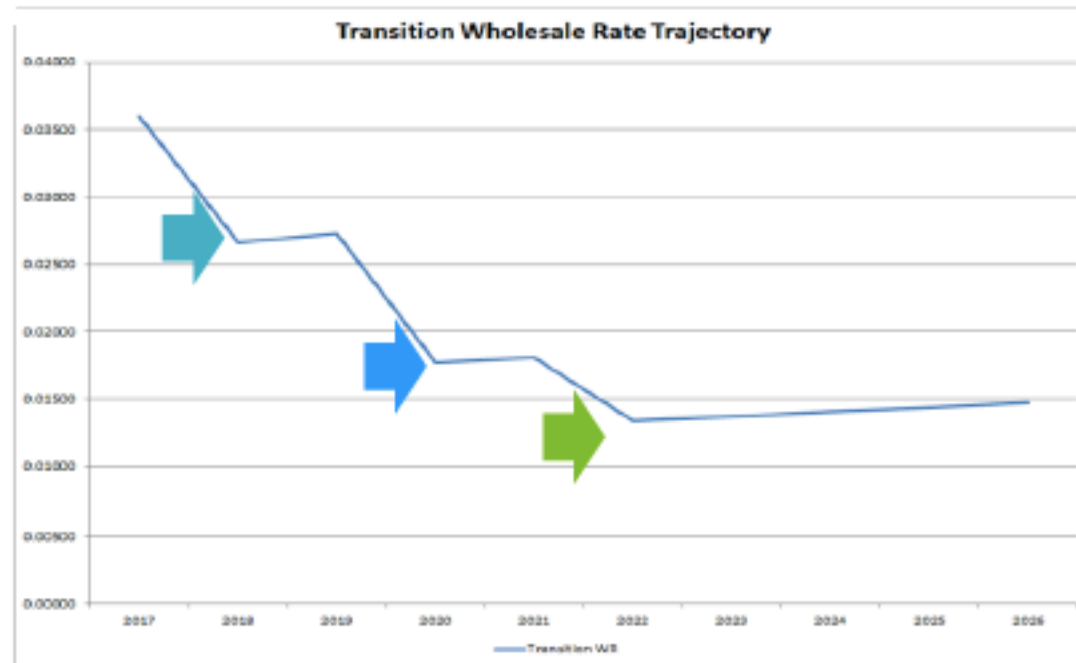
Energy charge reduction of \$0.01

2020

Energy charge reduction of \$0.01

2022

Energy charge reduction of \$0.005 or equivalent demand charge reduction



- TVA's end game is \$0.025/kWh by 2022 – starting with \$0.01 this year (2018).
- *Once this “rate change” (structure) is accepted – others could proceed as a “rate adjustment”*

The wholesale pricing roadmap proposal is to continue lowering wholesale rates closer to costs and continuously monitor for potential mid-course corrections

Presented November 3, 2016 Rates & Contracts Committee

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With TVA's proposed rate change, the average electricity customer could likely pay, in total, over \$350/year before they even flip a switch (\$29.24/month).