Tariffed On-Bill Investments

CPUC Affordability Proceeding Phase 3 En Banc
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On behalf of the TECH Innovative Finance Team
Tariffed On-Bill Impact on Energy Affordability

- TOB is a technology-neutral inclusive investment solution for the full suite of BTM decarbonization upgrades:
  - Energy Efficiency
  - PV+storage
  - Building electrification

- Tariffed terms require investments with positive cash flows for participants
- TOB investments’ impacts on rates for nonparticipants depends on project scope (technologies and buildings), customers, and locations
Tariffed On-Bill Investments for beneficial electrification offers ratepayer protections against increasing gas prices

Feb. 2021 En Banc found that...

- Electrification can lead to lower household energy costs, however, the up-front investments in EVs and other DERs for lower-income Californians may be a barrier to participation.

- NEM and DER customers are disproportionately wealthier homeowners that are able to arbitrage rates and reduce bill impacts by investing in solar PV, storage technologies, electric vehicles, and other behind-the-meter (BTM) solutions.

- Conversely, Lower-income customers are less likely to participate in BTM offerings and more likely to pay for incremental costs displaced by BTM customers.

TOB helps lower-income customers gain access to BTM investment opportunities in a way that more incentives and more consumer lending cannot.
TOB for beneficial electrification contributes to lower electric rates in virtuous cycle

Feb. 2021 En Banc found that...

- Residential rates for the three IOUs would fall by 1.4-2.1c/kWh under the High Electrification scenario (because increase in sales exceeds increase in revenue requirements)
Q. What are Tariffed On-Bill Investments?

A. Site specific investments on tariffed terms with on-bill cost recovery

Site-specific investments with site-specific cost recovery create an inclusive option for overcoming upfront cost barriers for all Utility T&D Infrastructure, Utility meter, panel and conduit, Building Decarbonization Upgrades.
Assurance of net savings via tariffed on-bill investment

Estimated average energy savings

Buffer for variance in estimated savings

Energy Savings

Buffer for uncertainty in estimated useful life

Useful life of upgrade

Years
<table>
<thead>
<tr>
<th>Attributes</th>
<th>On-Bill Loan</th>
<th>TOB Tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No upfront participant cost for cost effective upgrades</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>• No credit or income qualification required</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Renters are eligible</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>• Estimated savings <strong>must exceed</strong> cost recovery charges</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Participant accepts an opt-in utility tariff <strong>tied to the location</strong></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Cost recovery is through a fixed charge on the utility bill</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>• Cost recovery subject to same repayment obligation as the rest of the bill</td>
<td>✓</td>
<td></td>
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<tr>
<td>• Payments end if upgrade fails and is not repaired</td>
<td>✓</td>
<td></td>
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<tr>
<td>• Cost recovery runs with the location and remains in effect for subsequent customers at that site until cost recovery is complete</td>
<td></td>
<td>✓</td>
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TOB’s Role in the Program Portfolio

- Expand residential customer access to decarbonization upgrades and accelerate investments

![Diagram showing TOB's role in the program portfolio]

- Tariffed on-bill investments
- Direct Install
- Conventional financing + incentives

Potential customer bill savings vs. Customer credit-worthiness
Building Electrification Requires an Integrated Approach

- TOB investments mobilize capital tied to customer bill savings
- Multiple value streams must be monetized to complete the project capital stack, include values to ratepayers and society at large
Thank You

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