LEAPFROGGING ON-BILL FINANCING (OBF) WITH TARIFF-BASED FINANCING (TBF) OF ENERGY EFFICIENCY BEHIND THE METER

Arkansas Public Service Commission

March 7, 2022

On-Bill Financing (OBF), involves a Utility offering:

- **a loan** to a customer, with all elements that typically implies:
  - property **ownership (no renters need apply)**
  - dealing with a **lender (bank, credit union, or the utility itself)**
  - **a credit check** (debt-to-income ratio – **no low-income customers need apply**)
  - incurring **debt** (a loan or note)
  - a **lien** (if the borrower is a property owner)
  - possible **disconnection** for failure to make loan payment
  - possible **collection activity** for nonpayment
  - possible **foreclosure** for failure to retire loan
  - possible **impairment of property sale** if loan not paid,
  - a need for **loan loss reserve**
  - the property owner's obligation to pay the loan charges if the EE upgrades fail during the term of the loan, even if there are no energy savings.

IOUs frequently object to OBF, citing no interest in being "banks" or collection agencies. (Evergy Missouri has recently signaled its opposition to being a financial institution that holds loans or liens on equipment on the customer's side of the meter.) If an IOU includes OBF as an EE program measure paid for by all customers through an EE cost recovery rider, then all customers finance the loan and any associated losses, increasing costs and reducing cost effectiveness of the utility's EE portfolio via the ratepayer funding pool. The customer must engage and pay contractors for work and enforce warranties in event of repair or replacement need.

What is meant by TBF?

- The term *Tariff-Based Financing* featured in these slides is synonymous with *On-Bill Tariff*, the term elected by the U.S. Department of Energy in its Issue Brief on the topic. Both terms refer similarly to the concept called *Tariffed On-Bill* by the Southeastern Energy Efficiency Alliance in its materials on best practices.
- TBF also comports with *Tariff-Based Recovery*, which the California Public Utilities Commission recently coined with the release of its draft Transportation Electrification Framework
- The objective for using TBF is to send a signal that "on-bill" <u>and</u> "financing" both produce consistent allergic reactions due to the prior association of those terms with "loans" (See Slide 2).
- No matter what the abbreviated jargon may be, all these terms have the same meaning when unpacked: Tariffed terms of service for site-specific utility investment and cost recovery.

Elements of Tariff-Based Financing (TBF)

- **As pioneered in 1999 by the Energy Efficiency Institute, Inc. (a Vermont Sub-S Benefit Corporation), the Pay-As-You-Save® (PAYS®) model TBF involves:**
- **No loan to customer** and **no means testing for eligibility** (so most elements on Slide 2 go away).
- **LMI customers occupying homes needing EE upgrades are eligible just like non-LMI customers. PAYS is available to renters with the landlord's consent.**
- The opt-in tariff provides that **the utility (IOU, co-op, or muni):**
  - **Accesses any source of very low–cost market rate capital**: 2-4% (e.g., RUS, CFC, or utility's own balance sheet capital)
  - **Invests in and owns cost-effective EE measures (averaging $4,500 - $8,000) on the customer side of the meter. This is a key factor.**
  - **Either directly, or through an experienced third-party Program Operator:**
    - **conducts an energy audit/assessment of the home**
    - **deals with contractor selection**
    - **engages and pays installers for all cost-effective EE improvements (LEDs, HVAC replacement, attic insulation, duct and air sealing)**
    - **arranges for repairs or replacement of non-performing measures, and enforces warranties. . .**

Elements of TBF cont'd

- **<u>….The utility:</u>**

- **<u>owns and warrants performance of measures</u>** and exercises leverage to obtain extended warranties; enforces quality assurance

- **<u>finances measures for up to 10-12 years</u>** (when measure costs are recovered, ownership transfers to property owner)

- **<u>places the costs as a monthly fixed charge onto the customer's bill, as offset by the kWh and bill savings (at least 20% of estimated energy and bill savings go to customer, thus reducing the bill in most instances). (Customers have option to do additional measures with an upfront co-pay)</u>.**

Examples of Successful TBF Implementation abound and Experienced Program Operators are available to help utilities stand up programs

- PAYS® programs began in New Hampshire in 2002 with a municipal utility and a cooperative and have been implemented in HI, AR, CA, KS, KY, NC, and TN by electric cooperatives, municipal utilities, and IOUs.
- Program Operators help design, set up, and manage TBF programs for utilities and deliver services to customers. These include EEtility (an Arkansas Benefit Corporation), MACED (a Kentucky non-profit), and utilities themselves.
- A large ($10-15 M) one-year PAYS® Pilot targeting low-income and multifamily populations was recently approved by the MO PSC for Evergy Missouri, but the IOU has the prerogative not to proceed with it. File No. EO-2019-0132, issued 12/11/2019, effective 1/1/2020. Evergy has the option to use a third-party Program Operator.

Arkansas's Ouachita Electric Cooperative Corporation
TBF Program – HELP-PAYS®

- Ouachita had a previous OBF Home Energy Loan Program (HELP) with low participation (46 member loans in 2015)
- HELP-PAYS® did not depend on government subsidies to run its program, but its cost effectiveness was enhanced when it won a competition for a USDA/REAP subsidy.
- Average HELP loan for single family home was $2,533
- OECC average household median income of ~$29K vs. Arkansas's $42K, National $52K
- 8500 meters, 6916 Residential
- Housing stock 50-75 years old, very energy inefficient in a high-heat, high humidity region in south Arkansas, with ubiquitous air conditioning; also cold winters
- Average energy usage of residential customer in 2016: 2,015 kWh per month (non-weather normalized), which is roughly twice the typical residential usage in Arkansas
- Most projects include a combination of cost-effective long-lived building upgrades: LED lamps, air sealing, attic insulation, HVAC, duct sealing, weatherization

Ouachita's HELP-PAYS® Features

- Co-op members, regardless of income, including renters in good bill payment status are eligible to participate, with permission of landlord. This is why TBF is called "all inclusive" financing. Eligibility is based on inefficiency of home, not income of household.
- No out-of-pocket cost to participating member (owner or renter) unless co-pay options are selected for additional EE upgrades or rooftop solar. This benefits LMI customers
- Landlord has little incentive to say no, since her property gets improved and her tenant's bills go down, making it easier to pay rent
- No credit score or check needed since no loan to customer
- No lien on property since no loan
- Little risk of disconnection and collection activity (only for failure to pay utility bills when vacating or selling property – the same as with non-TBF customers). Successor tenant/owner picks up future payments under tariff and experiences the same improved premises and lower bills. Owner may place notice of PAYS obligation on property record if permitted by state law.

More on Ouachita's HELP-PAYS®

- **No risk of foreclosure or impairment of property sale for failure to pay loan and diminished need for loss reserve** (since there is no loan to customer)
- **No subsidies by other customers, no ratepayer funding pools – every customer pays own way via the tariff-based charge for measures that lower the bill.**
- **Property owners are obliged under the PAYS® program to notify successor owners and tenants of the tariffed charges riding with the meter (and almost invariably the associated lower bills than otherwise would be the case, owing to reduced energy usage).**
- **No disconnections have been reported with more than 5,000 projects nationally and $40 million invested over the past 19 years of PAYS® program activity**

See 10-minute video on Ouachita's HELP-PAYS program at:
https://www.youtube.com/watch?v=FnNpZPk6o8g&feature=youtu.be

Ouachita HELP PAYS® Results

- After getting approval for its TBF tariff from the Arkansas Public Service Commission in 2016, Ouachita Electric Cooperative Corp. in south Arkansas implemented HELP PAYS®. See Order No. 2 in Docket No. 15-106-TF: http://www.apscservices.info/pdf/15/15-106-TF_6_1.pdf
- Ouachita favors TBF because it produces reductions in energy usage and peak load and thereby reduces costs paid to its wholesale (G&T) power supplier and thereby lowers costs for all of its members, while improving affordability, comfort, & livability for participants. All members benefit, but participants benefit more.
- Given the age and low efficiency of many rural cooperative members' homes in Ouachita's service territory and the very low-income status of many members, EE measures deliver a big bang for the buck for houses that on average are using over 2,000 kWh per month (vs. an average residential customer of Arkansas IOUs being 1,000 kWh per month).
- Estimated average monthly energy bill savings at Ouachita: $68 minus average monthly program service charge via tariff of $54, leaving average monthly net savings of $14 = average estimated 15% lower bill for every house participating, according to Mark Cayce, Gen. Mgr. of Ouachita.

More Results of Ouachita's HELP PAYS ® Program

- Results are reported by EEtility, a Little Rock-based Benefit Corporation implementing PAYS® for OECC and across the U.S.
- Explosive growth (3X more than total loan portfolio of former HELP OBF program), with $2.8 million in EE investments in first 3 years under HELP PAYS®. See OptiMiser evaluation report dated 3/1/2019.
- Average HELP PAYS® investment for single family home: $4,639. Avg. tariff payment period:12 years.
- 100% of multi-family housing units in OECC service area participated, with landlord approval and participation (including upgrades, optional co-pays)
- 88 participants were multi-family (avg. $5,746 inv.) and single family renters
- 173 HVAC units were installed in 2017 (including highly efficient mini-split replacements of window unit air conditioners)
- Evaluations show drop in peak demand averaging nearly 2 kW per participant (~ $250-$300 in annual avoided demand costs per customer = reduced payments by OECC to its wholesale supplier)
- Est'd 22% reduction in avg. participant's kWh usage (non-weather normalized) from 2016 to 2017 (2015 kWh/mo. reduced to 1,559 kWh/mo.)

More Ouachita Results:

- Out of 6916 OECC members, 5% market penetration of customer base as of 1/1/2020 (90% adoption rate by those who seek to participate).
- Supporting 20+ good paying jobs for EE contractors and installers in first year of HELP-PAYS
- Increasing availability of high-efficiency products and equipment, not previously found in the low-income rural region
- Attracting attention of Arkansas business community. Headlines:
  - *Arkansas Times*, September 1, 2017: "Free Energy: In Camden, an Innovative Program is Helping Electric customers Get Expensive, Energy-Efficiency Upgrades, Without Feeling the Pinch on Their Bill"
  - *Arkansas Business* magazine (two articles in same issue), September 11, 2017:
    - "No Catch: Lower Electric bills Pay for High-Efficiency Retrofits" and
    - "PAYS: Too Good, But True – Editor's Note"
- HELP-PAYS is also available to Commercial customers.

Ouachita Fun Fact for Regulators

- In October 2019, Ouachita applied to the Arkansas PSC, seeking a 4.5% rate reduction, owing to both its EE program and its Solar initiatives having contributed to reducing its wholesale power costs by driving down peak demand.
- Its General Manager attributes just over half of the total decrease to the co-op's EE and Solar accounts. This reduction has occurred even though the co-op has added several new MW of new load over the past 5 years.
- This rate reduction has now been approved by the PSC.

NARUC SURGE CALL

March 7, 2022

Residential Investment in Saving Energy (RISE) Pilot

Georgia Public Service Commission

RISE Pilot Overview

- Request for an Income-Qualified Tariff-Based Financing Pilot was included as part of Georgia Power's 2019 Integrated Resource Plan
  - The pilot was not approved due to high Admin costs but as part of the Approved Stipulation/Order Staff and the Company agreed to work on that issue over a 9-month period
  - The Pilot plan was due April 1, 2020
- The RISE Pilot and associated tariff were approved in June 2020
  - PAYS based pilot; first for an IOU
  - $7 million budget
  - 500 homes (250 for two service areas)
  - $7,500 average spending per home – no more than $10,000
- Eligibility Requirements
  - Income-qualified – 200% of the federal poverty level (self report)
  - Residential single and Multi-Family premises
  - Own or rent as long as the owner of the property agrees to the upgrades

Pilot Goal

- Overcome participation barriers to low-income customers who typically do not have the capital to cover upfront costs of energy efficiency upgrades and are often underserved in standard energy efficiency programs
- 25% of the customer's baseline household electric energy usage
  - Eligible measures are identical to the certified Home Energy Improvement Program's list of qualifying measures and incentives including:
    - HVAC
    - Insulation
    - Smart Wi-Fi Enabled Thermostat
    - Air sealing

RISE Tariff

- Targets energy burdened customers in Atlanta and Athens
- The term of payment will not exceed the lesser of the estimated average life of the measures or ten years from the first charge to the electric service bill
- Immediate bill savings
  - 80% payback upgrade costs
  - 20% reduce current bills
- Gas savings included as part of savings calculations as of July 2021
- Tariff is tied to the property not owner/occupant

Current Program

- Completed 17 tariffed installations
  - Attic Insulation, Duct and Air Sealing, Smart Thermostats
  - Average spend is $5,000
- Over 250 potential participant meetings
  - Over 130 with Direct Installs
    - LEDs, Smart-strips, Showerheads, Water Heater Insulation, etc.
- Challenges
  - **Tariff not available to all customers**
  - Model requires large bills
  - High energy burden may not equal high bills
  - Metro ATL is mostly gas heating

Next Steps

- Georgia Power requested to continue the pilot in its 2022 IRP/DSM Filing
- Potential expansion to the Savannah area

Questions?

PAYS IN MISSOURI

AMEREN MISSOURI (PROGRAM YEAR 2021 & 2022)

- Spending floor of $750K for marketing, advertising, admin, etc.
- Program year 2021 - $1.82M admin budget; $5M in financing to eligible customers
- Program year 2022 - $3.19M admin budget; $10M in financing to eligible customers
- 4% financing cost for program participants
- Anticipated 4,367 MWh and 2.04 MW savings in 2021
- Anticipated 8,735 MWh and 4.07 MW savings in 2022

AMEREN MISSOURI (PROGRAM YEAR 2023)

- $3.06M admin budget, $10M in financing to eligible customers
- At least $1M to be spent administering and marketing the PAYS program
- Financing cost charged to participating customers reduced from 4% to 3%
- Will include as part of its 2021 EM&V, additional research on why participants choose not to enroll or accept a qualifying PAYS offer in an attempt to identify barriers to enrollment
- Anticipated 7,713 MWh and 3.59 MW savings in 2023

EVERGY MISSOURI METRO & WEST

- Budget to be no less than $10M and no more than $15M
- Allow owners of multifamily units in participating buildings to use the program to install upgrades in common areas
- Have an appropriate earnings opportunity component
- Include customer protections by capping admin costs for each individual customer project to a % of the total finance cost (Later agreed by the parties and approved by the Commission to be a fixed $490 “close out” fee)
- Submit progress reports both six months and one year after the PAYS program begins
- $3.17M admin budget; $7M in financing to eligible customers
- Anticipated 6,007 MWh and 1.9 MW savings for one-year pilot

EMPIRE

- Residential Whole Home Energy: PAYS
- $509,891 admin budget; $500K for financing
- Anticipated 1,102 MWh and .42 MW savings for 2022

SPIRE (GAS)

- PAYS Program budget is $6M for PY1 and $11M per year for each program year thereafter until Spire's next general rate case
- Annual program budget includes $1M to be spent on admin, marketing, and other costs associated with the implementation and installation of program measures
- 3% finance cost
- Program costs tracked and deferred into a regulatory asset until next rate case
- No estimates of participation or savings at this point

AMEREN GAS

- Company transitioned its NG EE programs to a PAYS program
- Current annual budget level of $700K maintained, with $450K allocated to admin of the PAYS program and $250K allocated to weatherization
- $450K budget is expected to finance up to $2.1M worth of EE upgrades
- Ameren will treat each PAYS project as a custom measure and determine savings as such