TWENTY FIRST CENTURY UTILITIES, LLC
THE MILLION RATE BASE MODEL

The Million Rate Base™ model is a key pillar of the TFC Utilities approach. The energy industry, and specifically the electric power sector, is the most capital intensive industry on earth. Massive investments in the electric grid have been possible because highly creditworthy regulated monopoly utilities have access to vast amounts of low cost capital and, importantly, pass along the benefits of this low cost capital to consumers via the cost-based regulated utility rates. Hence, consumers pay relatively affordable prices for electric power delivered to their homes and businesses.
While we continue to support the traditional rate base model for grid level investments, our Million Rate Base™ model opens the door for regulated utilities to enable millions of customers to adopt their own energy producing and energy saving assets at minimum cost.

EVOLVES THE REGULATED UTILITY MODEL TO EMBRACE CUSTOMER FACING TECHNOLOGIES

Leverages the regulated utility's mass purchasing power and access to low cost capital

A TRADITIONAL APPROACH

The supply and delivery of electricity is considered an essential service to society and a natural monopoly. In exchange for the exclusive right granted to a regulated utility to sell electricity in a defined service territory, regulators determine which energy resources and technologies the utility can deploy, how much it can invest, how much it can charge customers, and the rate of return on those investments the utility is authorized to earn.

A critically important factor that determines how much a utility can charge its customers is called the "rate base," which is the depreciated book value of all the utility's assets – such as a power plant or a high-voltage transmission line. The total annual revenue that a utility requires in order to finance and operate all its assets and generate its authorized rate of return to investors is called the revenue requirement, which is ultimately allocated among various customer segments (i.e. industrial, commercial and residential) via the ratemaking process.

Under this regulatory approach, the larger the rate base the more the utility is able to earn, resulting in higher prices for customers. Unfortunately, this dynamic can

incentivize a utility to build or acquire assets that have a higher capital cost than necessary. For instance, a utility might be motivated to build a very expensive nuclear power plant versus a more economical alternative such as a natural gas fired combined cycle plant or investments in customers' energy efficiency and demand reduction.

A TWENTY FIRST CENTURY APPROACH

What if regulated utilities had a commercial model that facilitates their customers' ability to choose their own energy resources and energy saving technologies while taking advantage of the utility's mass purchasing power and low cost of capital?

Enter the Million Rate Base™ model, designed by TFC Utilities, to provide customers with the lowest possible cost on residential solar panels, community wind turbines, energy management systems, energy efficient appliances, as well as a wide array of transformational energy technologies today and in the future.

The Million Rate Base™ model enables regulated utilities to provide these technologies at the lowest possible cost to customers in two ways:

1. **Lowest Cost of Product** – Regulated utilities will purchase these technologies by the thousands, enabling them to negotiate with manufacturers and installers for the lowest possible cost per unit. Our utilities will fully pass along the benefit of these lower, economy of scale prices – without a markup – to provide the lowest cost products for our customers.

2. **Lowest Cost of Money** – Because a regulated utility is, by definition, a low risk investment vehicle, it is able to raise capital at a very low cost. Therefore, what it costs a utility to finance the products and services requested by customers under this model is significantly lower than other commercial financing options. TFC Utilities voluntarily uses the same regulator-approved cost of capital for its Million Rate Base assets as it does for traditional grid-based investments.

Imagine that millions of customers are given the opportunity to acquire these technologies through their utility. Unlike the traditional approach, in which the total cost of a utility investment is shared by all customers, our Million Rate Base™ model allocates the cost of each customer facing asset to the individual customer who voluntarily ordered that asset, via that customer's monthly utility bill.

For the first time, regulated utilities empower customers to choose among a wide array of technologies to:

- Select their preferred source of energy, such as solar or wind
- Produce, store and manage their own energy with solar panels, battery systems, and energy management devices
- Reduce their energy consumption, costs and environmental impact

- Embrace innovations, such as electric vehicle charging stations

The result is a twenty first century utility that will shift its investment portfolio from traditional forms of supply and delivery toward more efficient and environmentally responsive assets near the point of consumption that provide a cleaner, lower cost and sustainable energy future.

ENABLES ALL CUSTOMERS TO ACQUIRE INNOVATIVE TECHNOLOGIES IN AN AFFORDABLE MANNER

Customers choose their preferred technologies at the lowest possible cost through their own rate base

Before the Million Rate Base™ model, only consumers with significant financial means could acquire innovative but expensive energy technologies. Even when vendors have offered leasing programs to make these technologies more accessible, the financing terms are typically expensive and only available to customers with high credit ratings.

In addition, leasing structures for these assets are often burdened with an increasing cost profile over time, even if retail utility rates do not increase. Moreover, the vendor will own the assets at the conclusion of the lease term, not the consumer. We can offer consumers a much better deal.

Today, TFC Utilities' Million Rate Base™ model opens the door for customers to choose from a wide array of innovative energy technologies and energy efficient appliances by providing the lowest possible installed cost, and very favorable financing terms, leveraging the utility's access to low cost capital.

A customer who wishes to purchase, for instance, the latest energy efficient HVAC system, solar panels or energy management system can now turn to their local utility for the best deal. Once a customer has chosen from the menu of available technologies, the cost of those technologies is then allocated over a period of time equal to (or less than) the economic life of the assets, and charged to the customer's monthly utility bill. After the contract period is complete and the asset is totally amortized within that customer's "rate base," the customer will own the asset, at no additional cost.

Benefits to the customer include:

- Choice among a wide array of energy technologies and vendors that have been prequalified and tested by the utility
- Visibility and control over their energy consumption, cost and environmental impact

- High-quality technology at significantly reduced cost
- No material upfront product or installation cost
- Fixed monthly payments that never escalate
- Low-cost financing at the utility's regulated cost of capital
- Worry-free maintenance and warranty programs from either the utility or third-party vendors
- Ownership of the assets after the customer's last contractual monthly payment
- Increased residential or commercial building value

MODERNIZES THE ELECTRIC POWER SYSTEM

Deploys clean, efficient and interactive technologies, while hardening the electrical grid

The Million Rate Base™ model is a commercial accelerator to modernizing the electric power system because it enables millions of customers to easily adopt their preferred energy producing and energy savings technologies in an affordable manner by leveraging the utility's access to low cost capital and mass purchasing power.

As more and more customers acquire rooftop solar panels, smart thermostats, energy management systems, electric vehicles and a host of other customer facing technologies, assets at the point of consumption will multiply and diversify in a manner that alters the entire electric supply and delivery landscape. While disruptive to the traditional distribution model, these changes provide substantial economic, societal and environmental benefits.

Increases Grid Efficiency and Clean Energy Sources

- Supplies local loads from energy resources at or near the point of consumption, reducing energy losses associated with transmission and distribution
- Enables utilities to retire inefficient centralized resources such as coal fired power plants, which produce significant carbon emissions, by increasing the number of clean, localized energy producing resources

Hardens Grid Infrastructure to Increase Reliability, Resilience and Security

- Creates thousands of dynamic and interconnected microgrids that disconnect and continue to operate independently in the event of a power outage
- Supports automated demand response events that curtail appropriate loads during peak periods without sacrificing customer comfort

Reduces Operating Costs and Increases Efficiency for Companies Across Multiple Industries

- Enables companies to set and automatically control energy usage on everything from lighting and temperature to industry related equipment
- Proactively optimizes energy consumption by dynamically adjusting building operations based on changing conditions
- Collects and analyzes data on energy usage to continually refine consumption and reduce costs

Improves Utility Capital Planning to Reduce Cost for the Entire Customer Base

- Regulated utilities can overinvest by overestimating how much energy will be needed in the future. When utilities forecast growing loads or the need for new generation several years in advance, they must initiate the power plant development process today and incur significant current costs and forward obligations. Once set in motion, even if construction of a large power plant is demonstrated to be unnecessary or too expensive, utilities are typically precluded from changing direction since they have already incurred tremendous sunk costs and contractual obligations. In contrast, the Million Rate Base model:
  - Virtually eliminates this potential for overinvestment and asset write-downs because it greatly reduces the need for utilities to accurately predict loads well into the future
  - Reduces the number of large scale, difficult to manage and often contentious, construction projects (such as building a multi-billion dollar nuclear power plant) that often result in significant cost overruns. Small generation projects (such as installing a rooftop solar installation) are easy to manage and are significantly lower risk investments. When cost overruns occur in this context, they measure in the hundreds or thousands of dollars, not multiple billions. Moreover, our utilities previously secure meaningful guarantees from prequalified vendors in advance, resulting in no economic burden to the utility or its customers

Adapts to Technological Change and Accelerates Mass Adoption

Technological changes are sweeping through the electric power industry. Even recently commissioned coal fired generation plants are already economically and environmentally obsolete. As societal needs change, our model enables utilities to test innovative customer facing energy technologies with low risk, since these technologies are significantly lower cost than traditional centralized assets. As proven, scalable technologies emerge, our model enables customers to acquire them affordably, thereby accelerating mass adoption.