EXECUTIVE SUMMARY

Both the cost of living and the cost of doing business are greatly impacted by energy. Utility companies have traditionally held a monopoly on the power supply available to customers. Conventional sources of energy - coal, nuclear, and hydropower - require large capital investments and specialized production facilities which must be managed by large utility companies. However, the boom in renewable energy production and technological advancements has opened the energy generation sector to the public, providing an alternative to the status quo of energy generation, transmission, and distribution. Markets have emerged in states where third-party contractors have entered into agreements with residential and commercial customers to generate, use, and sell electricity outside of the local utility’s purview. These contracts, known as third-party Purchase Power Agreements (PPA’s), are economical for customers, challenge monopolistic rates, and attract profitable commercial enterprises to states which permit them.

WHAT ARE PPAs?

Technological advances in energy generation have led to the increased usage of wind, solar, hydropower, and biofuels as sources of electricity that can replace coal, nuclear, and even natural gas at greatly reduced costs. As renewable energy continues to be generated in more efficient ways, it has become increasingly possible for utility customers to generate at least a portion of the electricity they consume. It has also become far more profitable for electric customers to do so, and in some
states, it is a viable alternative to the monopoly on energy production previously enjoyed by large-scale utilities.

But how can a municipality, a business, or a homeowner generate their own electricity, and compete with utility-owned coal and nuclear power plants? In a deregulated utility market, electric customers can enter into PPAs to provide an “energy choice option” for consumers. Put simply, PPAs are contracts between electricity generators and electricity users for the purchase of electricity over a specified period of time. Rates, which are usually lower than retail rates offered by utility companies, are often set for the contracted period and allow electric customers the knowledge they need to predict future energy costs more accurately.

Let’s dive in and unpack the technicalities behind a PPA. PPAs were originally contracted between utility companies following the 1978 Public Utility Regulatory Policy Act (PURPA).\(^1\) This Act mandated that utility companies acquire renewable energy resources from specific producers as a component of their annual portfolios. As an example, PURPA required utilities that owned only coal-powered plants to contract with wind and solar operators to obtain the required mix of renewables that would meet their state’s standard. However, as renewable energy technologies have developed, and as federal and state level policies have allowed, it has become increasingly possible for electric customers themselves to install and operate their own power generators—typically by using solar panels. Large-scale commercial customers, municipalities, and even some homeowners are able in many states to sign their own PPAs with solar developers who own, install, and maintain the system. By contracting with these third-party power providers, customers are able to skirt their utility altogether, or at least to defray a portion of their energy needs to an on-site PV system.

**Benefits of PPAs**

PPA clients contract with developers to site, install, and operate the solar system.\(^2\) This

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\(^1\) [https://www.nrel.gov/docs/fy10osti/46723.pdf](https://www.nrel.gov/docs/fy10osti/46723.pdf)

third-party developer will then sell the power generated to the customer at a low rate. Even better, the third-party developer can sell excess power generated by the system back to the grid, which benefits the utility by enabling the company to incorporate renewable energy into its mix. The utility company is responsible for managing transmission of power between the site and other customers. Meanwhile, the utility company maintains a relationship with the PPA customer, stepping in to provide power when the solar system does not generate enough power for the consumer. The host customer of the solar system pays only for the electricity used. Thus, PPAs are a cost-effective, consistent, and secure source of energy production. For businesses like grocery stores, where profit margins hinge on pennies, lowered electricity costs can make all the difference. Additionally, the presence of additional electricity generators in the market forces large-scale utility companies to offer electricity at a competitive rate. The benefits of reduced energy spending for third-party PPA contractors trickle across the entire rate base.

In order for PPAs to become a viable means of energy generation and transmission in Missouri, statutes and regulations need to bring light to a gray area in the law as to whether PPAs are allowed. Utilities companies say no. Several big businesses say yes. Clearing this up makes economic sense. According to a 2018 report from the Missouri Department of Economic Development, there are a number of challenges facing Missouri that could be addressed in part by a deregulated utility market.

Large companies like Walmart and Amazon are increasingly driven both by corporate sustainability goals and by the desire to produce power on-site through third-party PPAs. These businesses utilize large distribution warehouses that consume great amounts of energy. On-site solar installations would provide significant energy cost-saving to them. Therefore, these businesses increasingly seek - and take up residence - in states that permit them to enter into PPAs.

In other words, they are not going
to move to states without this access.

Unfortunately, Missouri is not currently among states that would allow this. However, in terms of solar, Missouri is prime real estate. The Institute for Local Self-Reliance has identified Missouri as a state with significant opportunity for solar development in terms of location and the number of sunny days occurring per year. Missouri has the capability to produce as much as 21% of its energy needs from rooftop solar. The state should seek to utilize this source of power while attracting commercial operations to stagnating rural communities. The economic opportunities presented by the siting of warehouses, factories, and distribution centers are various and range from the creation of staffing and solar technician positions, temporary construction jobs, and increased county revenues from property and sales taxes. Solar alone is predicted to add 3,700 jobs and over $400 million to the state’s economy.

Utility customers, both residential and commercial, are looking for more flexibility and choice in the utility market. A 2015 study undertaken by Smart Electric Power Alliance found that 59% of respondents are interested in rooftop solar, with 46% of that sample preferring community solar, which can be obtained through third-party PPAs. When questioned about their motivations for seeking solar, over one-third of respondents chose “more control and independence” from their utility company as a reason for utilizing solar. Since the study was undertaken, solar technology has continued to advance, becoming significantly more efficient and cost-effective each year.

**Conclusion**

Through smart policy-making and deregulation of the utility market, Missouri could maximize its resources to encourage significant economic development across the state by enabling PPA’s to take root.

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5 Ibid.
6 https://docs.google.com/document/d/1jojFOPXwZwTe0r4eZa6YkmCwwtXLUhKXXOy2itKeJFA/edit