To the City of Naperville, the Village of Winnetka, and the City of St. Charles:

At the request of local citizens in your communities, I am writing to provide insights based on my experience in energy supply contracts to inform your ongoing deliberations.

As a Principal at RMI, a non-partisan, non-profit "think and do" tank, I have spent the last 11 years advising communities, companies, and universities on their energy procurement strategies. In line with RMI's mission, I currently oversee a team of 10 energy experts helping communities pursue a clean, prosperous, zero-carbon future for all.

I have been impressed by the collective attention and effort your communities have put into evaluating your energy supply options. I also want to recognize that you are being asked to make a meaningful, long-term decision in the face of significant uncertainty, conflicting priorities, and national political turmoil.

My intention in this memo is to supplement the information supplied by others, including Mark Pruitt and Customized Energy Solutions, and provide insights on four points:

- Power Marketers Offer Alternative Supply Options
- Flexibility Is an Important Consideration in Energy Supply Contracts
- Current Renewable Energy Prices Are Unusually High
- Electricity Demand Should Be Actively Managed to Lower Supply Costs.

Power Marketers Offer Alternative Supply Options

In my review of the opportunities facing your communities, it appears that commercial power marketers (e.g., Constellation, Next Era, etc.), have not always received sufficient recognition as potential power supply providers. These companies have both i) a proven track record of serving other Illinois communities, and ii) can provide intermediate options between continuing to rely on coal or immediately shifting to 100% renewable energy.

Proven Track Record: As a technical advisor to the City of Chicago's 100% renewable power supply procurement effort, I have seen first-hand the power of competitive procurement for energy services. In 2019, the City of Chicago was unhappy with its default offering from its prior electricity provider. Given the size and duration of its electricity contracts, Chicago chose to release a competitive request for proposals to various energy supply companies. In 2022, **after only three years**, the City announced an innovative, 100% renewable, reliable electricity supply deal that enabled a large-scale solar development in Illinois and also secured an $400,000 annual community workforce development investment from its supplier. The deal was so successful that subsequently Cook County followed suit and signed an almost identical contract. Meanwhile, the City of Evanston, IL, has regularly negotiated contracts with power marketers, with the most recent contract providing

$500,000 in revenue to the City at no cost to residents. Other communities could follow this approach by building off of Chicago's RFP (which is available here), engaging cities like Evanston with experience in this area, or hiring one of the many available energy consulting firms.

It is also worth noting that, as these power companies already frequently engage with other important regulatory bodies such FERC, PJM, and the State of Illinois, they have extensive capabilities to provide other services beyond power supply.

Intermediate Options Between Coal and 100% Renewables: Power marketers own vast, diverse fleets of electricity generation capacity that could be leveraged to supply community needs. For example, Constellation has a fleet of over 34 GW of capacity, including nuclear, natural gas, hydroelectric, and renewable generation. As demonstrated by Chicago as well as Cincinnati (which leveraged a PJM subaccount), these contracts for energy and/or capacity can be paired with power purchase agreements as desired and can be structured to provide fixed pricing to avoid exposure to electricity market price volatility. Additionally, power marketers such as NextEra have strong credit ratings and are therefore able to transact for energy resources with other power marketers and power resources, which could improve the market reach for Naperville, St. Charles, and Winnetka.

As such, your communities do not need to make a binary choice between IMEA's coal assets or 100% renewable power in 2035; rather, power marketers provide a means for your communities to secure reliable power from a variety of existing generation assets. Failing to thoroughly explore these options and ask for potential pricing through a solicitation may impede your communities' abilities to make informed choices on contracts worth hundreds of millions of dollars over decades. Indeed, it is worth considering that, in almost any other circumstance, it would likely not even be legal for communities to sign such a large agreement without a competitive solicitation.

Flexibility Is an Important Consideration in Energy Contracts

Given the growing uncertainty and variety of external factors that may dramatically shift energy markets in the coming decades, it may be prudent to pursue energy supply contracting arrangements that provide communities with the flexibility to adjust their supply options every few years (1-5 years is typical in power marketer contracts). In contrast, the IMEA contract as currently presented locks communities into a 30+ year obligation without providing any individual community with significant ability to shape the supply portfolio.

In recent decades the electricity markets in the United States have seen multiple, large shifts from new technologies (e.g., fracking driving down natural gas costs), the rise of

corporate renewable procurement (companies have signed contracts for 84 GW of clean electricity generation since 2014), regulatory shifts (e.g., CEJA), and most recently the large uptick in demand forecasts as a result of data center proliferation. The susceptibility of electricity markets to change is likely to increase as ecological, technological, financial, and regulatory pressures continue to play out in the coming decades.

These various factors suggest a variety of potential risks that communities should take into consideration. One form of risk, which Customized Energy Solutions has rightly pointed out, is the price volatility that communities could be exposed to by buying wholesale power. However, there also exist a range of other risks. For example, relying heavily on a few generation plants creates **asset-specific risk**, or the risk that a particular asset fails or suffers damages that require significant expense to repair. There is also **regulatory risk** in the form of state, federal, or local policy changes which could impose costs on generation owners. Such regulatory risks may be relevant to IMEA's Prairie State investment given the ongoing lawsuit against Prairie state as well as potential future cleanup costs associated with its >700 acre coal ash landfill. There is also **provider risk**, or the risk that an individual entity may make poor investment decisions which lock its customers into above market rates – a risk that is heightened for suppliers which operate without significant regulatory oversight or competitive pressure.

In this dynamic market context and given the potential for unexpected factors to shift asset-specific or market dynamics, communities should also be cautious about assuming current costs will persist for decades into the future – particularly when no guarantees or caps are placed on those costs. In particular, communities may wish to note that the proposed IMEA contract, which extends to 2055 and then continues into perpetuity unless actively terminated, offers a blank check to IMEA to cover whatever costs it incurs.

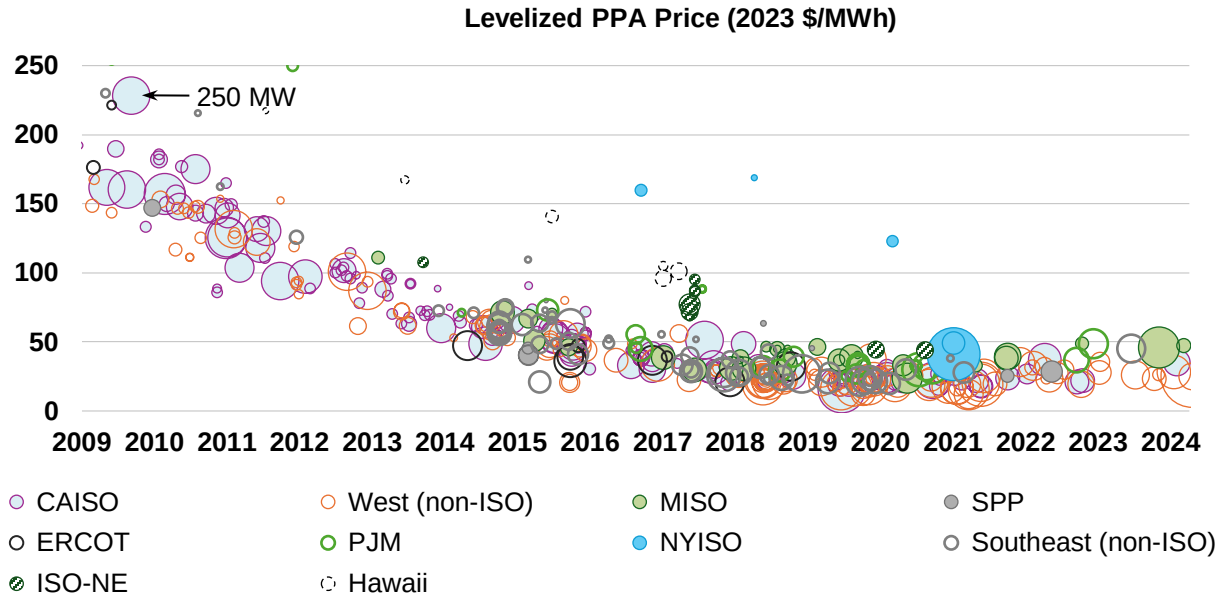
For these types of reasons, some communities have chosen to avoid long-term contracts. For example, Memphis Light, Gas, and Water board of commissioners unanimously voted against a 20-year contract with TVA, citing that it was "too long for an agreement." Supply contracts offered by power marketers can be structured on 1-5 year time scales that would allow communities regular opportunities to revisit and adjust their options. Moreover, communities could follow Cincinnati's example by sourcing some of their electricity through a long-term PPA while retaining flexibility for the remainder.

Current Renewable Energy Prices Are Unusually High

Most of the conversations regarding the price of renewables have, understandably, centered on recent wind and solar price data. While this is a logical starting point, I want to

highlight that the current IL prices should be taken in context given the long duration of the proposed IMEA contract.

First, as shown in the chart below (taken from Lawrence Berkley Laboratories' Utility Scale Solar report), utility-scale solar prices in the United States had significantly declined for many years. Wind prices have experienced a roughly comparable trajectory.



This historical perspective suggests that recent increase in prices seen in PJM markets are *not* a function of the inherent costs of renewables. Rather, they are the result of recent increases in electricity demand (principally driven by data center load growth) and constraints in supply (due to factors such as siting, permitting, and interconnection challenges). Importantly, these supply constraints are the result of local factors that can, and arguably likely will, shift as industry increases pressure on the electricity sector and policy makers to meet their growing demand. In the event that the local constraints on renewables are mitigated, Wright's Law (similar to Moore's Law in computers) suggests that these technologies should benefit from continued cost declines as deployment scales further.

As such, while it is impossible to confidently predict prices 10–let alone 20 to 30–years into the future, communities should understand that the fundamentals of renewable energy suggest it is likely to be among the lowest cost forms of generation in the future. In this event, communities that do secure sufficient flexibility in their power supply arrangements may be better poised to capitalize on low-cost electricity and attract industrial and corporate investment (if desired).

Electricity Demand Should Be Actively Managed to Lower Supply Costs

My last point is that communities such as Naperville, St. Charles, and Winnetka should strongly consider integrating energy reduction strategies into their supply contract discussions to optimize their approaches. Local programs that leverage energy efficiency, virtual power plants, and demand response can provide opportunities for communities to reduce their consumption, particularly at those key hours of the year when capacity requirements are determined. For example, San Antonio's municipal utility, CPS, estimates that their STEP program (a portfolio of commercial and residential energy efficiency, demand response, and solar programs), has saved customers $657M in avoided capacity payments. While such programs may well be executed in parallel to a power supply contract, they can have significant implications on a community's overall energy costs and, as such, should be considered as part of an overall energy supply strategy.

Conclusion

As Naperville, Winnetka, and St. Charles consider their future energy procurement strategy, my hope is that this memo provides useful insights on a few points:

1. Your communities have a variety of power supply options that could be considered, including power marketers with large, existing generation fleets.
2. Energy markets are expected to be increasingly dynamic, and as such it may be prudent to anticipate greater volatility due to shifts in regulatory priorities, rapid technological advancement, and increasing investment. In a dynamic, uncertain environment, it may be worth making strategic investments to retain flexibility and limit your community's exposure to long-term asset, regulatory, and provider risks.
3. Renewables have a long track record of being low cost and are likely to continue to benefit from economies of scale over the medium-to-long term. The recent price increases in wind in solar in Illinois should be understood as a recent phenomenon driven by supply and demand forces that will likely prompt both market and policy reactions and shifts.
4. A community's overall energy demand and capacity requirements can and should be actively managed in an integrated fashion with supply decisions to reduce communities' overall costs.

Thank you for your attention and consideration. If you have questions on the above points or perspectives, I would be happy to meet with you to discuss these matters further.

Regards,
Stephen Abbott
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