

Planning for the Future

Naperville Electric Utility



Tonight's Purpose:

- Continue the conversation of energy procurement options for the future
- **Review Option #3 – Market Participation without Asset Ownership**
- Summarize option #3 with our approved components of evaluation

Market Participation without Asset Ownership

One way to supply energy and capacity to the city of Naperville is through the purchase of power through wholesale markets.

- Specifically, through the **PJM Wholesale Market**
- To become a market participant, we must:
 - Staff for the Energy Management Office (approx. 10-14)
 - Collect and provide PJM with required deposit ~ \$12 million
 - Execute several agreements and forms required to participate
 - Create and build cash reserves for a rate

Market Participation without Asset Ownership

As a market participant, Naperville will be responsible for the functions that are currently being executed by IMEA, including:

- Market scheduling functions
- Long-term planning
- Regulatory compliance
- Energy Efficiency programs
- Demand response programs

Market Purchases – Comparative Analysis

PROS

- Not locked into a long-term energy mix
- No long-term asset liabilities

CONS

- Price Volatility & Significant adverse financial risk
- No control over the energy mix

RISKS

- Requires rate stabilization fund
- PJM collateral requirements

FEASIBILITY

- High/Default Choice

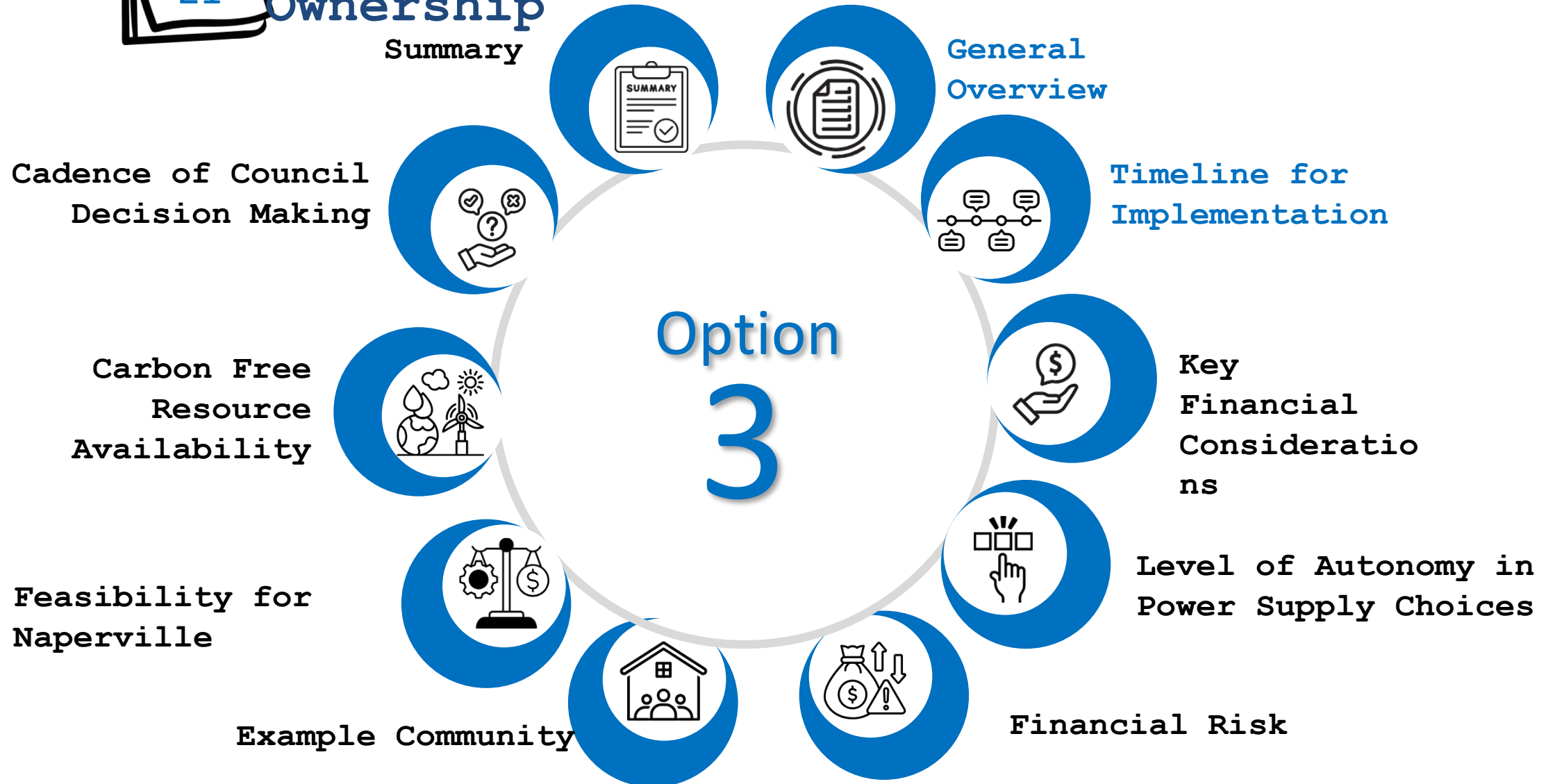
Market Purchases - Options

- **All Market**
- **Market with Asset Ownership**
- **Market with full or partial Power Purchase Agreement**
 - PPA likely for block energy and capacity
 - PPA's reduce exposure and volatility at an increased cost
 - PPA's allow control over energy mix
- **Market with Supply Contract**
 - Comparable to PPA, but can be load following
 - Renewables typically more expensive
 - Pre-IMEA, City utilized this approach
 - Ancillaries covered by IMEA, no longer offers to non-members
 - Short term contracts (1 - 3 years)
 - No long-term price certainty



Market Participation without Asset Ownership

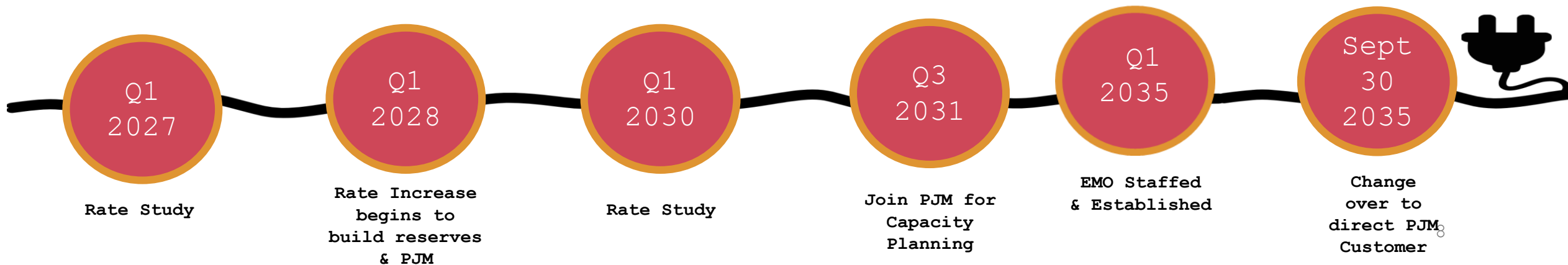
Summary



Option #3 Market Participation without Asset Ownership

General Overview and Timeline for Implementation

- Market driven
- High price risk
- May be hedged by
 - Asset Ownership
 - PPA contract
 - Load following supply contract





Market Participation without Asset Ownership

Summary



Option #3 Market Participation without Asset Ownership

Key Financial Considerations

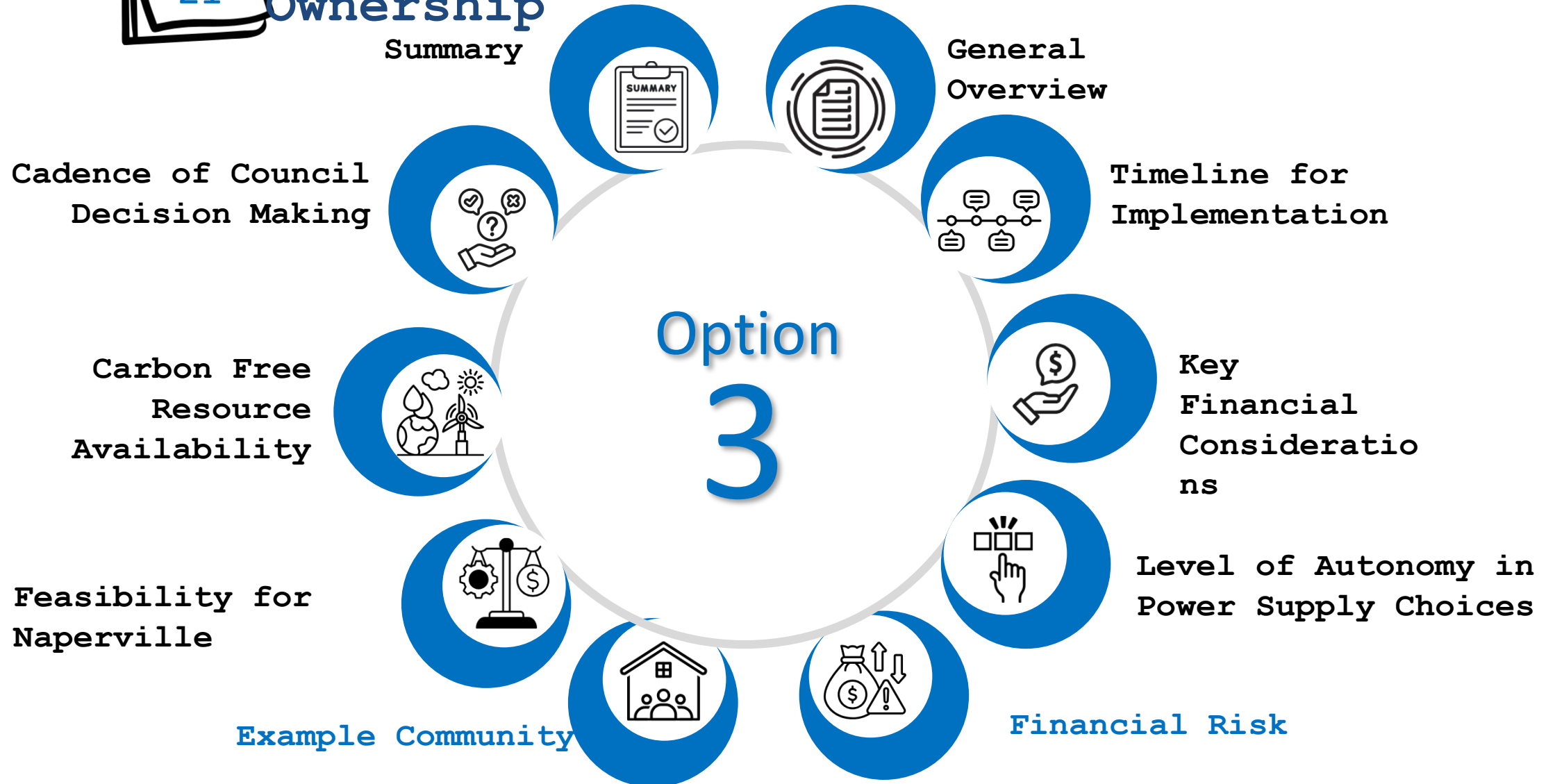
- Price volatility & significant adverse financial risk
- PJM deposit & collateral and rate stabilization fund must be established
- Costs of additional staff to be hired for Energy Management Office (EMO)

Level of Autonomy

- Level of Autonomy in power supply choices
 - None – driven by market mix, some control via PPA



Market Participation without Asset Ownership Summary



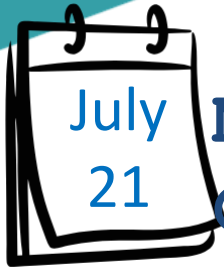
Option #3 Market Participation without Asset Ownership

Financial Risk

- Extreme risk without hedging materials
 - CPS Energy (San Antonio) – Feb 2021 – \$1B
 - Denton Municipal – \$31 M
 - Winter Storm Elliott – (PJM) Dec 2022 – \$2B cap penalties

Example Community

- South Sioux City, NE
 - Registered as a load serving entity and an active market participant inside the Southwest Power Pool (SPP) grid
 - Not part of a JAA
 - Hired private commercial entity to act as its direct market manager and scheduling agent



July
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Market Participation without Asset Ownership Summary



Option #3 Market Participation without Asset Ownership

Feasibility for Naperville

- Default Choice
- Consider energy futures and commodity trading to hedge

Carbon Free Resource Availability

- Sourcing is fully dependent on market with possible mitigations to purchase RECs or renewable PPA's.



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Market Participation without Asset Ownership Summary



Option #3 Market Participation without Asset Ownership

Cadence of Council Decision Making

- Quarterly rate evaluations

Summary

- High risk
- **Pros:**
 - No debt is issued to build and maintain physical power plants.
 - City can pivot power portfolio to new technologies and avoids being stuck with an obsolete or unviable power plant.
- **Cons:**
 - Community is completely exposed to market fluctuation, and the grid operator requires millions in cash or credit up front to allow trading.
 - No control over market mix and rates would increase beginning in 2028 to establish rate stabilization fund.



Sale of the Electric Utility



Questions?

Naperville Electric Utility

