iLamp

iLampIllinois.com

iLamp Roadmap for The State of Illinois

This document covers information required to build a road map to commercial viability for the iLamp territorial license for the state of Illinois.

iLamp

Illinois Population
12.67 Million

GDP
$779 Billion

Estimated Streetlights
1,102,290

Street lighting is the largest single source of carbon emissions from local governments, typically 30-60% of their total emissions.

Enhanced lighting leads to up to 40% sustained reductions in both night and daytime outdoor crimes.

On residential roads 3.1% of accidents are fatal in lit conditions, rising to 4.9% in areas without street lights.

Cost benefit ratio for the USA is 1:48. $1 spent = $48 in benefits.

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iLamp Illinois: Beyond a mere streetlighting solution, iLamp Illinois offers a comprehensive strategy to unlock significant economic benefits, enhance public safety, and establish a robust technological platform that attracts top American tech innovators and developers. This positions iLamp as a key player in disseminating cutting-edge solutions globally.

Lamp Sales: iLamp's autonomous functionality reduces strain on the power grid. Its modular design facilitates the integration of various sensors, hardware, and software solutions, enhancing pedestrian safety. This aligns with Illinois's initiatives to alleviate grid congestion and reduce pedestrian accidents. Its adaptable design seamlessly integrates with local systems, making it a vital component of urban street furniture.

Utilities: The Power as a Service (PaaS) model, wherein customers pay for the clean energy generated and utilized by the device, paves the way for existing utilities to embrace sustainable practices, starting with iLamp. This model spearheads the development of new utilities focused on local clean energy production, detailed billing, and dynamic on-device management.

Local Rights: iLamp's dedication to local manufacturing fosters job creation across various sectors, from production to maintenance. By leveraging regional talents and materials, it bolsters economic growth and regional prosperity. The potential for sub-licensing rights in specific regions or sectors further expands revenue generation opportunities through the rights secured by iLamp Illinois.

Technology Platform: As Illinois emerges as a significant technology hub, iLamp Illinois aims to acquire and channel these hardware and software solutions into its broad distribution network, reaching multiple territories worldwide. This creates lucrative revenue streams from technology sales and markups.

iLamp is more than a product; it is a gateway to innovation, security, and economic advancement. By addressing crucial issues like grid efficiency and pedestrian safety, it embodies the state's forward-thinking vision for a safer and more sustainable urban environment.

> *Creativity is the power to connect the seemingly unconnected.*
>
> - William Plomer

The iLamp

What is iLamp?

iLamp is a groundbreaking, self powered, modular, and enhanced lighting solution designed to address multiple urban challenges. By integrating autonomous power generation capabilities, and monetizing them iLamp is easy to install anywhere and alleviates grid strain, contributing to energy sustainability. By using Power as a Service to bill for this energy, iLamp generates its own revenue. Its modular design supports a wide range of smart city applications, offering further monetization opportunities and revenue streams and making it a future proof solution for urban infrastructure.

Equipped with low profile, cylindrical solar panels, iLamp harnesses renewable energy, storing it in batteries for efficient distribution. This setup powers street lighting but also supports various smart sensors and modules, eliminating transmission costs and reducing emissions to zero.

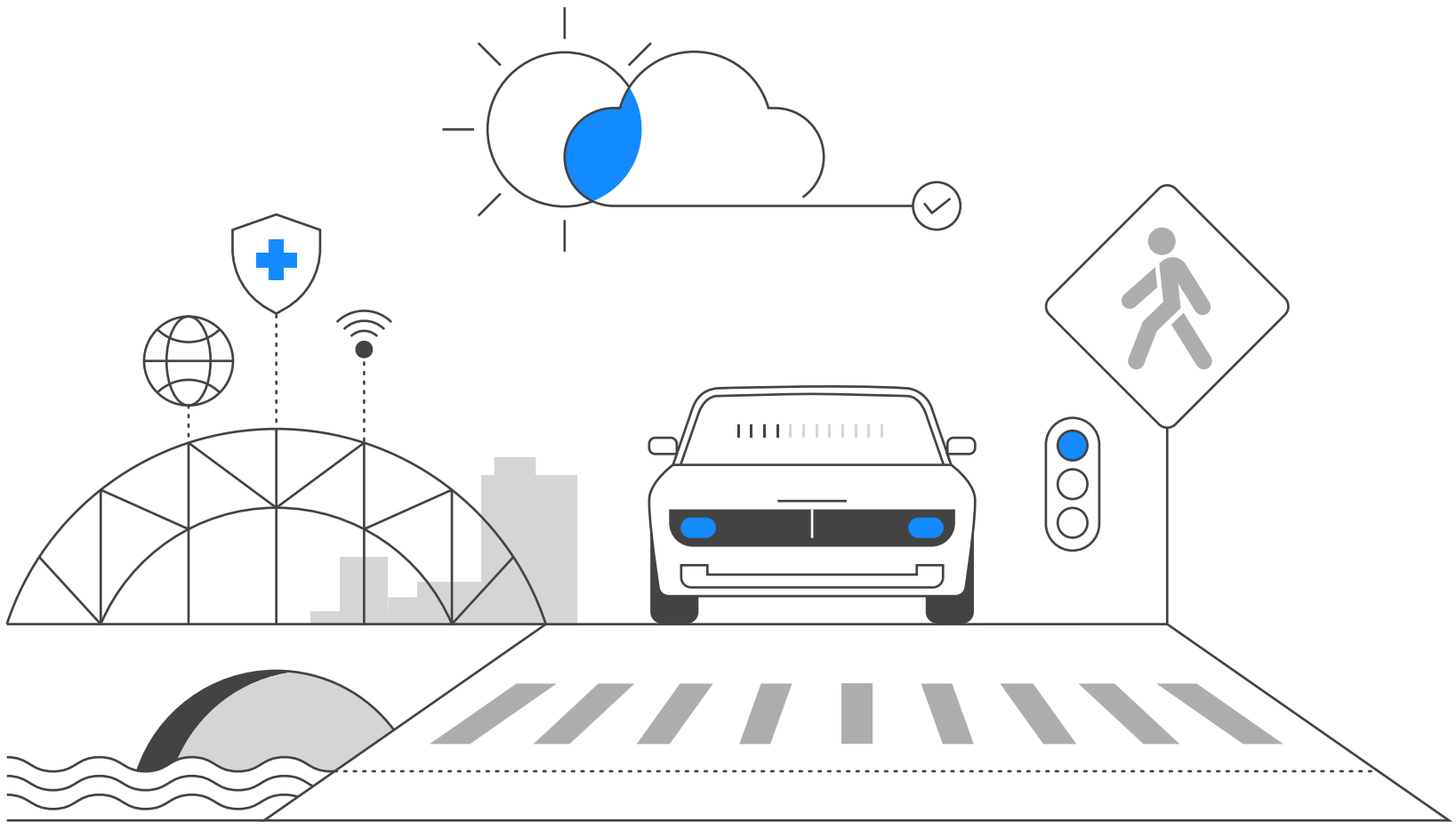
Each iLamp is customizable to meet the needs of different neighborhoods-supporting add-ons like 5G WiFi, traffic management, CCTV, environmental sensors and a plethora of other modules, sensors and software. This modularity ensures a quick, plug-and-play setup, making it adaptable and future proof and providing licensee's with various upsells and benefits.

iLamp qualifies as enhanced street lighting, which has been shown to reduce crime by 20-40%. Implementing iLamp can therefore significantly reduce various crimes and improve public safety which improves quality of life and stimulates local economies.

Through it's App and Module Stores, iLamp is a dynamic framework for unlocking hardware and software ingenuity, similar to how Google Play and Apple App Store revolutionised smartphones capabilities.

iLamp is not just a streetlight; it is a comprehensive urban solution and strategy designed to enhance safety, sustainability, and spur economic growth. By leveraging advanced technology and modular design, iLamp offers a future proof infrastructure that adapts to evolving needs, making countries, cities, towns and neighbourhoods around the globe safer, more attractive, and better connected.

Whether through crime reduction, safety, economic stimulation, or health and environment benefits, iLamp stands as a beacon of innovation in urban development, illuminating the future it unlocks.



The iLamp

Why iLamp?

iLamp has a transformational effect on communities making them safer, more prosperous, social and desirable. It is the single most cost effective improvement any country, city, town or neighbourhood can make, offering multifaceted benefits that dramatically outweigh its costs.

Saves Lives: On both streets and the road. Pedestrian and driver fatalities are 58% more likely on unlit roads. By providing enhanced illumination iLamp protects both the community and road users.

Decreases Crime: iLamp improves visibility, studies have shown that this enhanced street lighting leads to sustained reductions in crime rates of over 40%. Implementing iLamp improves crime rates, deters potential crimes, creating safer, more welcoming public spaces that can be used after dark, encouraging outdoor activities, social interactions and commerce.

Increases Property Values: Street lighting correlates with increased property values - with each 1% reduction in crime leading to an approximate 0.5% to 1% increase in property values.

Creates Jobs: iLamp sublicensing creates and inspires local jobs that keep money within the communities they serve, creating a virtuous cycle. Sublicensing can be made available down to a neighbourhood or zip code level.

The Illinois Opportunity

Illinois, a state combining traditional American ethos with modern innovation, is undergoing a substantial transformation in its urban infrastructure. This evolution aligns with Illinois's rapid technological and innovative advancements. The introduction of iLamp in Illinois promises a powerful synergy between the state's modernization aspirations and the worldwide shift toward smart city innovations. This venture represents a future where Illinois's rich heritage seamlessly merges with avant-garde urban solutions through iLamp's vision.

Harmonizing with Illinois's Tech Landscape:

Illinois, particularly renowned for its technological strides in manufacturing and energy sectors, sees iLamp Illinois as a pivotal element in this technological evolution. iLamp Illinois aims to blend the state's manufacturing prowess with its extensive distribution network, showcasing Illinois's tech capabilities on a global platform and enhancing profitability through international sales and technology exchanges.

Grid Resilience and Sustainable Transformation:

In Illinois, where energy demands are constantly shifting, balancing modernization with sustainability is vital. iLamp emerges as a frontrunner in this domain, offering a self-reliant lighting solution that reinforces grid resilience and promotes energy security. It marks a significant stride toward energy independence and sustainable urban living in Illinois.

Power-as-a-Service (PaaS) Model: A Leap into the Future:

iLamp's Power-as-a-Service model is a game-changer for Illinois energy providers, propelling them into the future of clean energy and intelligent utilities. This innovative approach transforms the traditional power distribution system, focusing on local generation, efficiency, and energy management innovation.

New Revenue Avenues and Technological Integration:

iLamp's modular framework opens doors for groundbreaking technological integrations, from IoT connectivity to advanced analytics. This taps into Illinois's growing tech sector, fostering new revenue streams and ensuring each iLamp unit becomes a high-tech hub contributing to the digitalization of Illinois cities.

Public Safety, Health, and Connectivity:

iLamp aligns with Illinois's objectives for enhanced public safety and health, potentially integrating with statewide safety networks. Its multifunctional features ensure well-lit streets and support public health and environmental monitoring. Additionally, its communication modules could become a cornerstone of Illinois's digital infrastructure, boosting connectivity across the state.

Economic Benefits and Reach Beyond Urban Areas:

iLamp in Illinois holds substantial economic promise, with the potential to extend beyond major urban centers like Chicago and Springfield, reaching semi-urban and rural areas. This inclusive approach ensures a uniform and advanced technological presence across the state, illuminating every corner with smart, efficient solutions.

Safer Streets Illinois

Illinois's vibrant cities, including Chicago, Springfield, and Naperville, are hubs of constant activity where busy streets see a steady flow of pedestrians, cyclists, and vehicles. Recognizing the critical need for road safety, the Illinois government is dedicated to improving street conditions to minimize accidents and safeguard city dwellers. In this scenario, streetlights are crucial, significantly improving visibility during the night or adverse weather conditions, thereby reducing the risk of accidents for all road users.

In densely populated areas like Downtown Chicago or the Capitol Complex in Springfield, streets are particularly bustling, necessitating superior street illumination. Similarly, residential neighborhoods and quieter zones also need high-quality lighting for crime prevention, accident deterrence, and enhancing a sense of security.

The Illinois Department of Transportation consistently focuses on road safety, aiming to enhance the effectiveness of street lighting. This includes prioritizing areas with high accident rates, pedestrian zones, and school vicinities where safety is of utmost importance. Despite these efforts, some regions may still face inadequate lighting or rely on outdated systems, creating safety hazards.

Adaptive Lighting Capabilities: iLamp's advanced technology enables the adjustment of light intensity based on environmental conditions. This feature ensures optimal illumination in diverse settings, from busy intersections to peaceful alleys and pedestrian zones, aligning with Illinois's vision for safer streets that cater to specific needs.

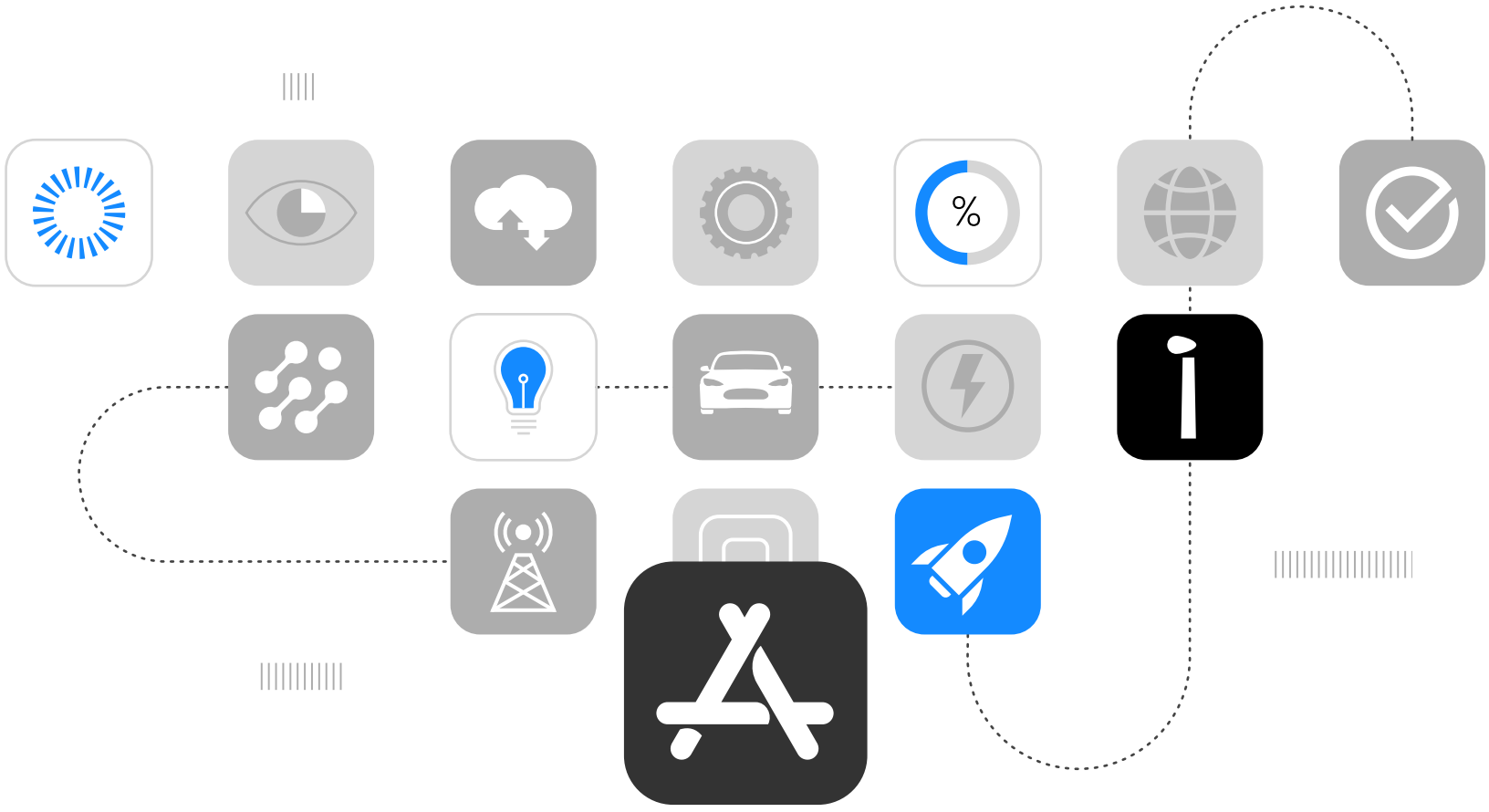
Integrated Safety Solutions: iLamp is more than a light source; its modular design can include additional safety features like motion sensors to detect unusual movements, or alert systems to warn drivers of potential hazards, thus enhancing public safety.

Monitoring and Real Time Response: iLamp could be integrated with surveillance systems and analytical tools, offering crucial insights into traffic patterns, pedestrian movements, and potential security issues in real time. This data is invaluable for law enforcement and emergency services, enabling quicker and more effective responses to incidents.

Supporting Illinois Traffic Safety Initiatives: As Illinois road safety authorities and local governments strive to improve traffic conditions, iLamp can be a key component in their safety enhancement strategies. iLamp's versatility allows it to adapt to the evolving needs of Illinois's urban landscape.

Future Innovations and Adaptability: Known for embracing technological advancements, Illinois is continually seeking innovative ways to enhance urban life. iLamp's forward-looking design is ready to adapt to future technological developments, such as advanced pedestrian recognition systems, integration with autonomous vehicles, or new smart city applications.

iLamp is set to be more than just a lighting solution in Illinois; it represents a journey towards safer, smarter, and more interconnected urban living. By addressing gaps in street lighting, providing real-time safety monitoring, and adapting to future technologies, iLamp is poised to play a pivotal role in Illinois's commitment to enhancing road safety and creating a secure environment for its residents.



iLamp App Store for Urban Innovation

iLamp stands at the forefront of urban technological evolution, akin to how the Google Play and Apple App Store redefined the landscape of software applications. iLamp transcends its primary function, unfolding as a dynamic framework for both hardware and software ingenuity.

Innovative Solutions

In the iLamp ecosystem combinations of hardware and software create transformative solutions for urban challenges. For instance, integrated microphones in iLamps enable a software application for gunshot detection and triangulation, providing precise location data for rapid law enforcement response, enhancing public safety. Similarly, iLamps equipped with smoke and heat sensors can detect early signs of forest fires, allowing for prompt alerts to residents and emergency crews, significantly mitigating fire damage and safeguarding communities. Motion sensors and cameras on iLamps optimise traffic flow through AI-driven analysis of traffic patterns, reducing congestion and accident risks, and contributing to a more environmentally friendly urban environment. These examples exemplify iLamp's potential in revolutionising urban living through smart, integrated technology solutions.

Empowering Local Innovation, Impacting Globally

While iLamp's immediate influence is local, enhancing public spaces with smart lighting, its potential for global technology dissemination is significant. This model encourages local developers to contribute to a growing repository of modular solutions, potentially setting new standards in urban technology and smart city development.

Creating a Sustainable Ecosystem

The beauty of the iLamp model lies in its economic and collaborative structure. Territorial holders stand to gain considerably, capturing over 20% of the revenue from apps developed in their region, incentivising territorial holders to promote innovation within their locale but also allowing them to include these novel solutions in their sales pitches, thereby broadening their offer to clients. This creates a symbiotic ecosystem where territorial holders, developers, and end-users benefit mutually.

Intelligent Lighting

iLamp’s intelligent lighting app ensures the correct lighting level for the area it’s positioned in, adapting to visibility and weather.

Power As A Service

PaaS redefines how energy is generated, distributed, and monetized on each iLamp.

Communications Billing

Communications billing enables each module to pay only for the data it uses, as well as for open WiFi network billing.

Batteryware Monitoring And Optimisation

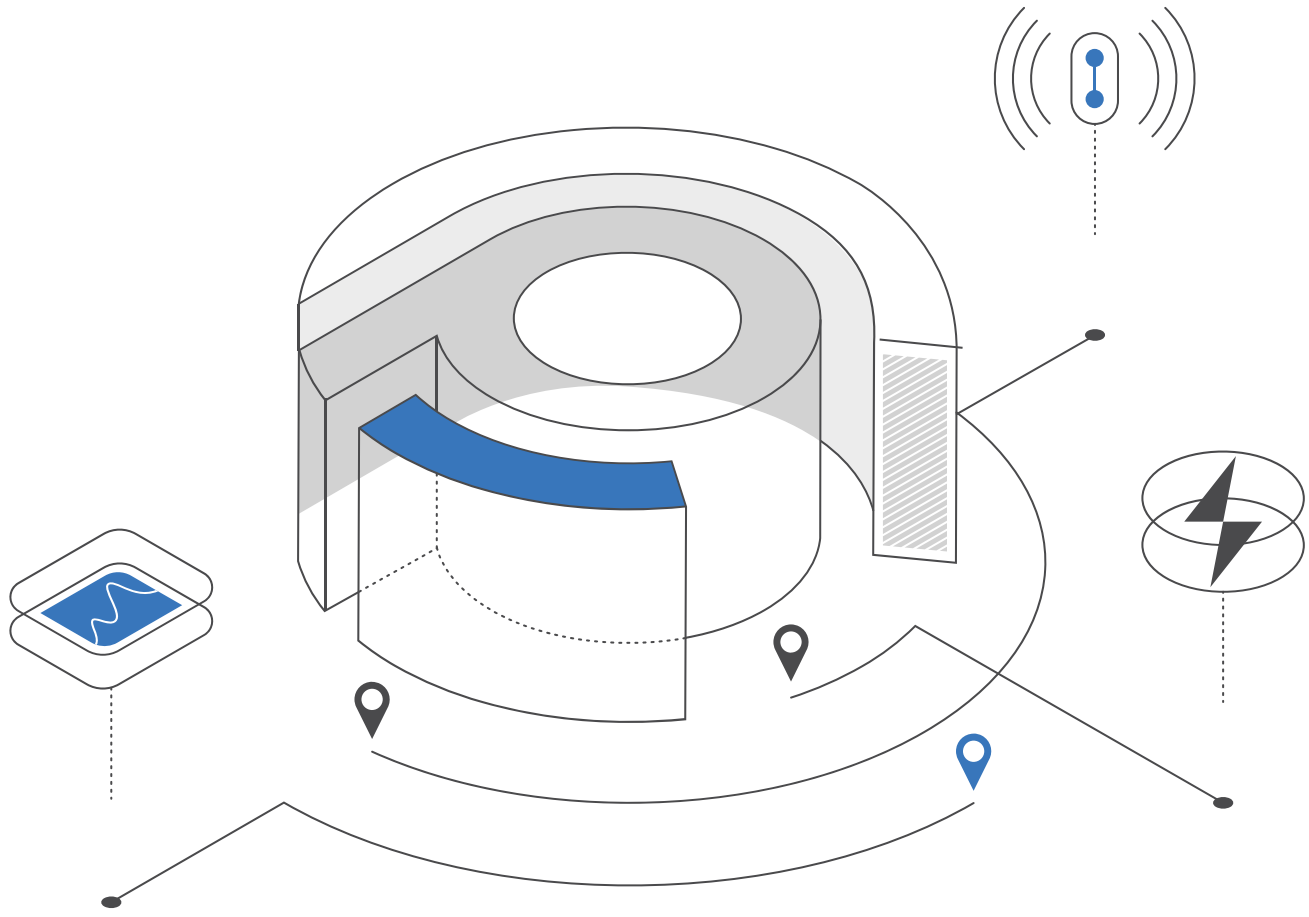
BatteryWare conducts comprehensive monitoring, and real-time analysis to ensure optimal battery conditions.

Video Surveillance

Video surveillance enables remote real time monitoring, motion detection, high definition video, smart alerts and integrations.

Weather Monitoring

Weather monitoring uses environmental sensors to act as a local weather station, relaying real time data to stakeholders.



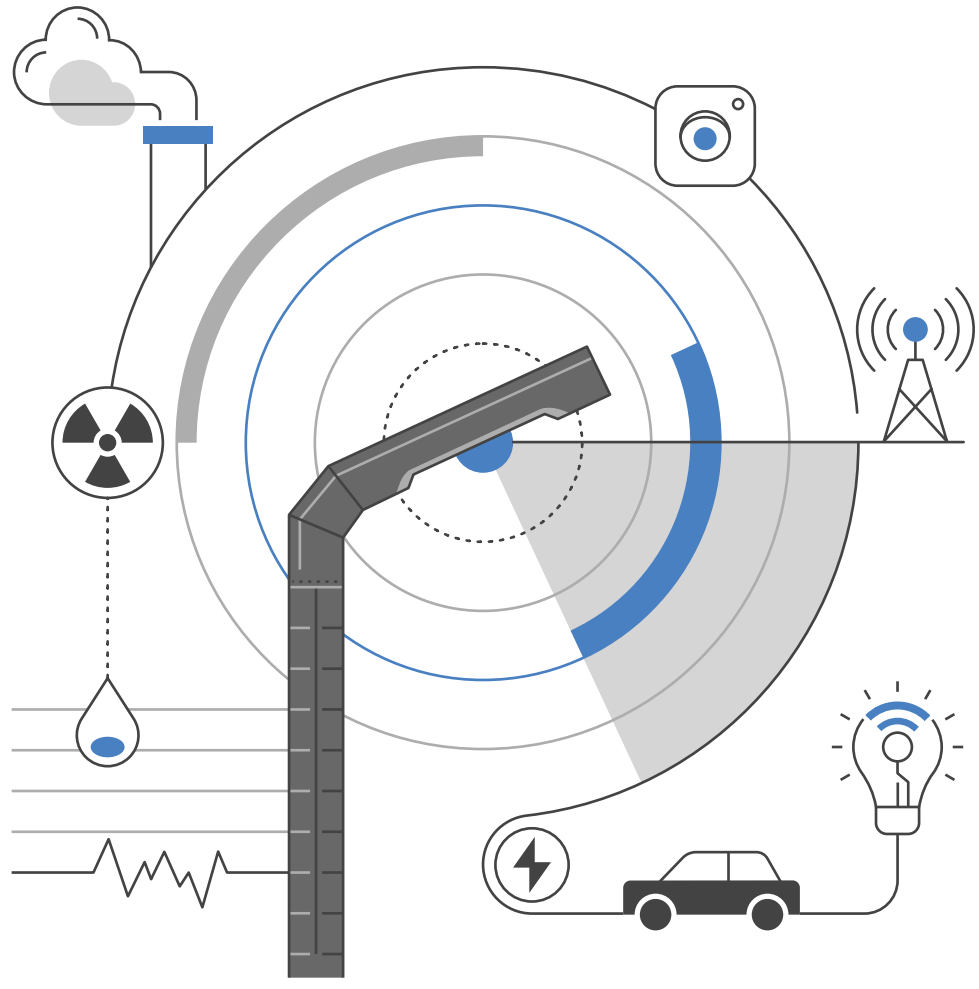
The Power of Conflow

Flagship Product of a Global Technology Aggregator

iLamp is the flagship product of the Conflow Power Group, a company with extensive global manufacturing capabilities, years of experience in product development, electronics, technology aggregation and strategy. Conflow Power Group focuses IoT and smart city solutions, owning several key technologies that make iLamp possible, ranging from advanced electronic modules and power management systems to battery monitoring, automatic lighting, LED technologies and software.

Conflow Power Group collaborates with several external developers to adapt their technologies for iLamp, providing a comprehensive development kit and specifications to support these innovations. This collaboration has led to a robust, established ecosystem surrounding every key aspect of streetlighting. Additionally, iLamp integrates a variety of smart city applications, making it the most comprehensive streetlighting solution available.

The company is committed to future innovation, with several new products in development, continually enhancing the capabilities and applications of iLamp. This ensures that iLamp remains at the forefront of smart city technology, offering unmatched performance and versatility in lighting solutions. iLamp is not only a product, but a strategy that has spawned an entire ecosystem of revenue generating activity for license holders to participate in.



Public security and health

Road Safety & Traffic

iLamp improves road safety, decreasing road fatalities of both road users and pedestrians. iLamp's optimal lighting enhances safety during peak low light hours and adverse weather conditions. Modular camera and communi-cations systems can help monitor traffic, detect potential hazards, and improve response times to accidents, improving road safety and reducing traffic.

Pedestrian Safety & Crime Deterrence

iLamp deters crime and increases pedestrian visibility by providing lighting in areas such as sidewalks, crosswalks, and public tra=nsportation stops. Modular cameras can be used to monitor pedestrian movement and help identify potential hazards or security threats in real time ensuring safer pedestrian environments.

Weather Monitoring Module

Weather sensors can detect changing weather conditions, such as storms, fog, rain, or snow, and adjust the intensity and distribution of light accordingly. This adaptability enhances visibility for drivers and pedestrians in adverse weather conditions, further improving public safety.

Air Quality

Air quality monitoring can help track pollution levels in real time, allowing authorities to implement appropriate measures to limit exposure and maintain a healthy environment. By monitoring and addressing air quality concerns, iLamp contributes to improved broader public health and well being.

Communications

Communication modules can both expand telecoms coverage and facilitate the transmission of critical information to the relevant authorities and emergency services in case of accidents or security incidents. creating a comprehensive and interconnected network enabling authorities to monitor and manage various aspects of urban living more effectively. This network of sensors can lead to improved decision making, more efficient use of resources, and a better understanding of the

Light Polution Reduction

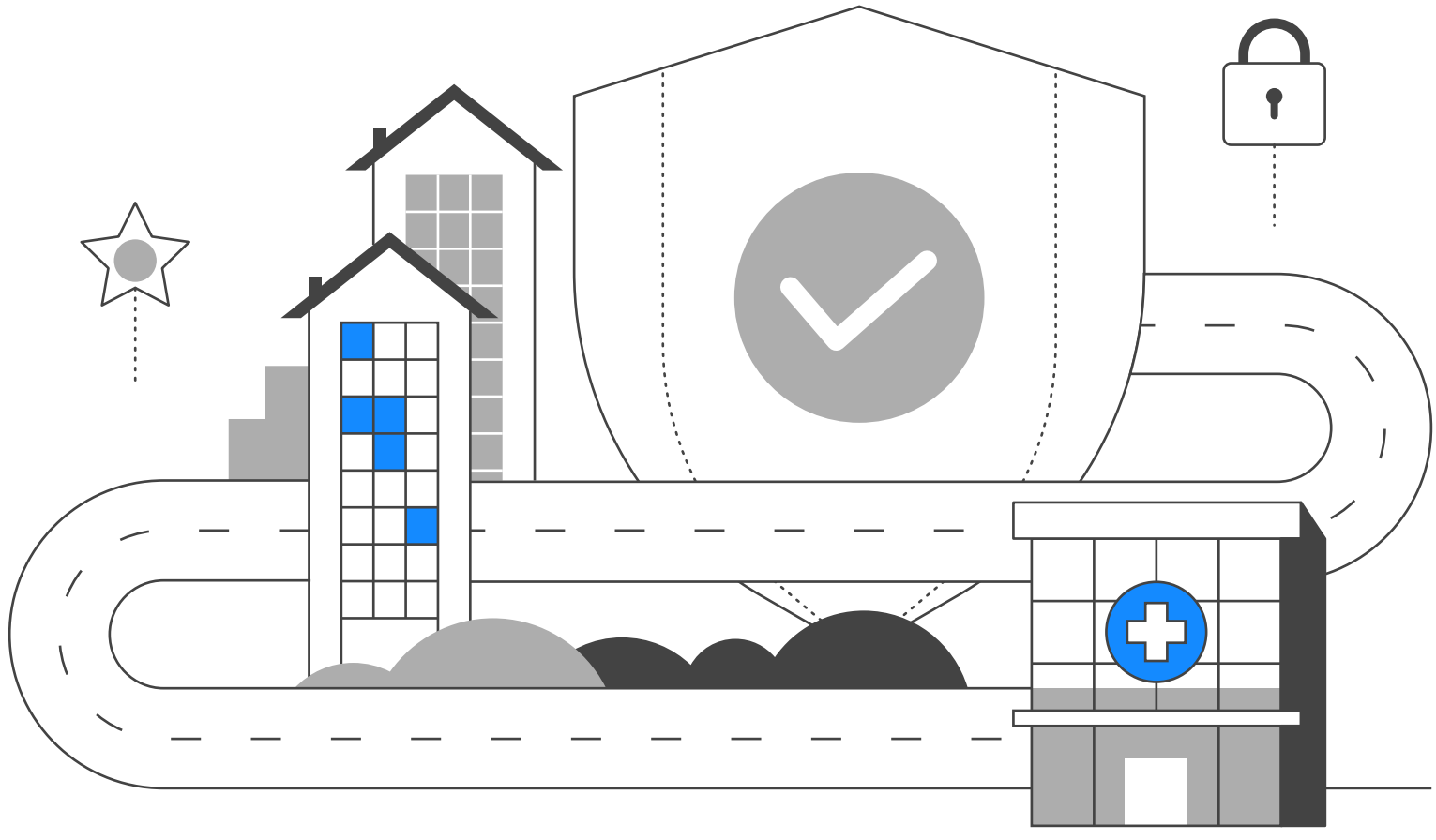
The adaptive lighting capabilities of iLamp can minimize light pollution by adjusting brightness levels according to the time of day and surrounding conditions. This can contribute to a better night-time environment, reducing the impact of artificial light on wildlife and human health.

Integration with Existing Infrastructure

iLamp technology can integrate with existing sensors and infrastructure, allowing for enhanced data collection and analysis. By connecting iLamp with sensors a modules facilitating parking, traffic management, telecommunications structural, UV and noise monitoring, fire, leak and flood detection, grid management and many more.

Public Protection

iLamp can host smoke, gas, gunshot detection, thermal imagine and communications modules, enabling the quick detection of public safety hazards, such as wildfires, shootings, gas leaks or explosions, these can then be relayed in real time via the communication module to the relevant authorities, enabling faster, more targetted and data driven responses.



Enhanced Street Lighting

Arizona has a violent crime rate of 455.5 incidents per 100,000 people and persistent property offenses make it crucial to implement effective crime prevention strategies.

Studies have shown that improved/enhanced street lighting reduces crime by 20-40%, making enhanced lighting the single most effective way to lower crime while also increasing pedestrian and road safety.

Specific studies indicate:

UK Home Office: 20% reduction in crime, including vehicle-related crimes.

U.S. Study: Published in Criminology & Public Policy showed 45% reduction in nighttime index crime and a 39% reduction in daytime index crimes following enhanced lighting installation.

Enhanced street lighting could lead to a significant reduction in crime rates, potentially by 20-30%. This includes reductions in various types of crimes such as vehicle theft, property crimes, and violent crimes.

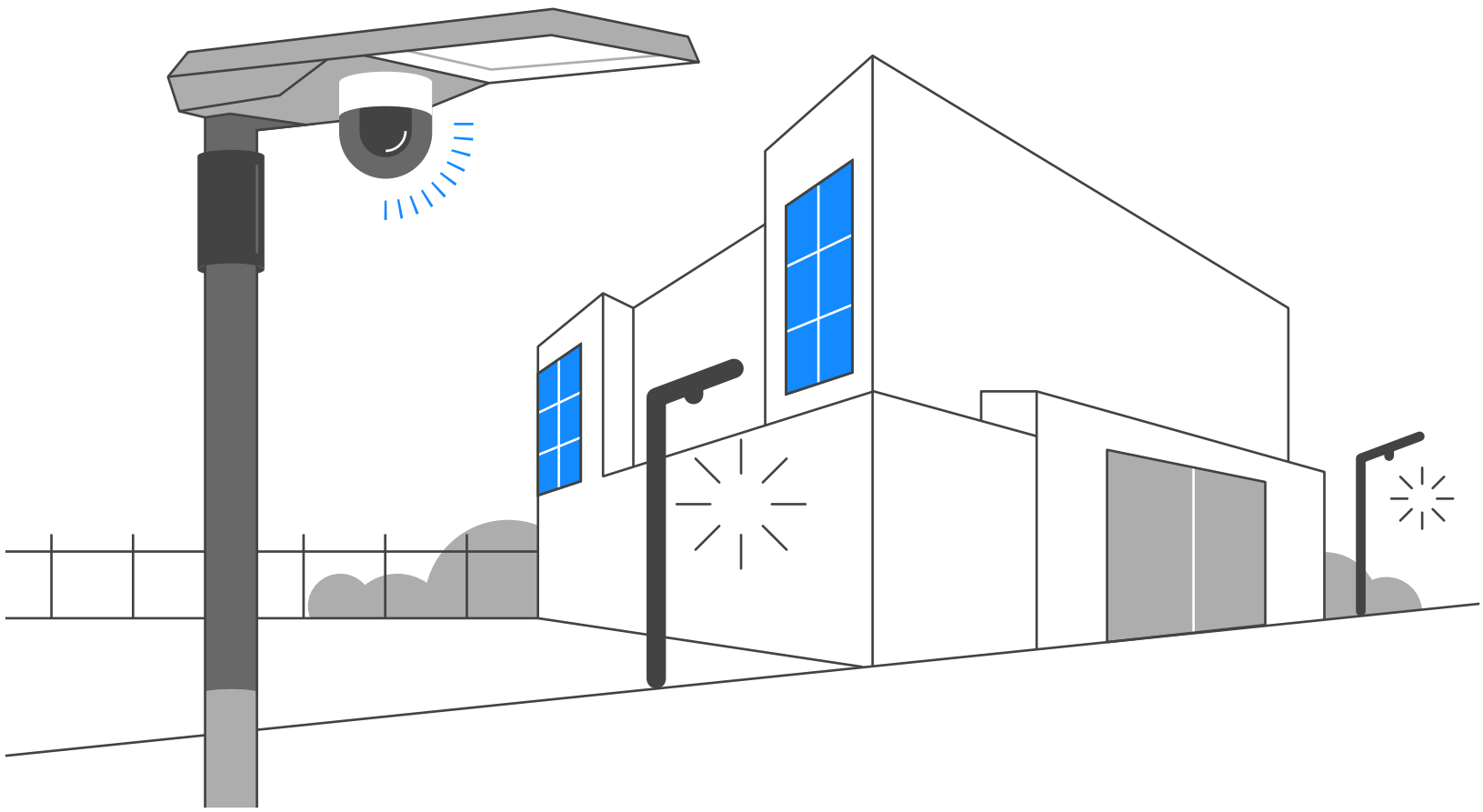
For every 1% reduction in overall crime, a 0.5% to 1% increase in property values is expected.

Enhanced lightingnot only increases property values significantly in previously unlit or poorly lit areas but lead to further economic stability and growth by attracting businesses and improving the quality of life for local residents. The increase in property values and improved safety drive more investments in the local infrastructure and services.

Better lit streets improve the perception of safety, leading to increased outdoor activities and community engagement and enhance the effectiveness of other crime prevention measures, such as CCTV surveillance.

To support the implementation of enhanced street lighting, a comprehensive database containing data on crime rates and property values has been compiled. This helps in identifying high crime areas that would benefit most from enhanced lighting, evaluating the cost effectiveness and impact of enhanced lighting projects and monitoring the long-term effects on crime rates and property values.

Enhanced street lighting presents a promising strategy to improve public safety, reduce crime, and boost property values. Given the continents rapid growth and active real estate market, investing in such infrastructure yields substantial benefits, making neighborhoods safer and more attractive to residents and businesses.



The iLamp Effect

Imagine a neighbourhood with above average crime, where after dark the streets feel unsafe and are inadequately lit.

People avoid the area, the perceived danger deters people from frequenting local businesses, which in turn close earlier or shutter permanently. The neighborhood loses its vibrancy and appeal, leading to declining property values and further disinvestment. People leave for brighter pastures.

Now imagine iLamp's are installed, their enhanced lighting and cameras begin to deter crime, first due to the lighting, monitoring, and then due to the larger presence of people who now feel safe walking the streets.

This reduction in crime leads to a domino effect: as people feel safer, they are more likely to walk around, visit local businesses, and participate in community activities. This increased presence of people further deters criminal behavior, creating a safer and more welcoming environment.

Better street lighting also contributes to road safety. Well lit streets significantly reduce the likelihood of traffic accidents and pedestrian casualties. Emergency services, including police, firefighters, and medical personnel,

benefit from improved visibility, allowing them to navigate the area more efficiently and locate incidents quickly. This enhanced response capability saves lives and mitigate the severity of emergencies.

As safety improves, the community begins to experience a revival. People start to move into the area, attracted by the now safer and more appealing environment. This influx of residents drives up property values and stimulates the local economy. Businesses extend their operating hours, taking advantage of the increased foot traffic and nighttime activity. Public transportation becomes more accessible and reliable, allowing residents to shop, socialize, and commute safely after dark. This increased mobility to a higher quality of life and a more vibrant community atmosphere.

iLamp is not only functional, but aesthetically pleasing. They can be positioned to highlight architectural features and are designed to minimize light pollution, creating a pleasant nighttime atmosphere.

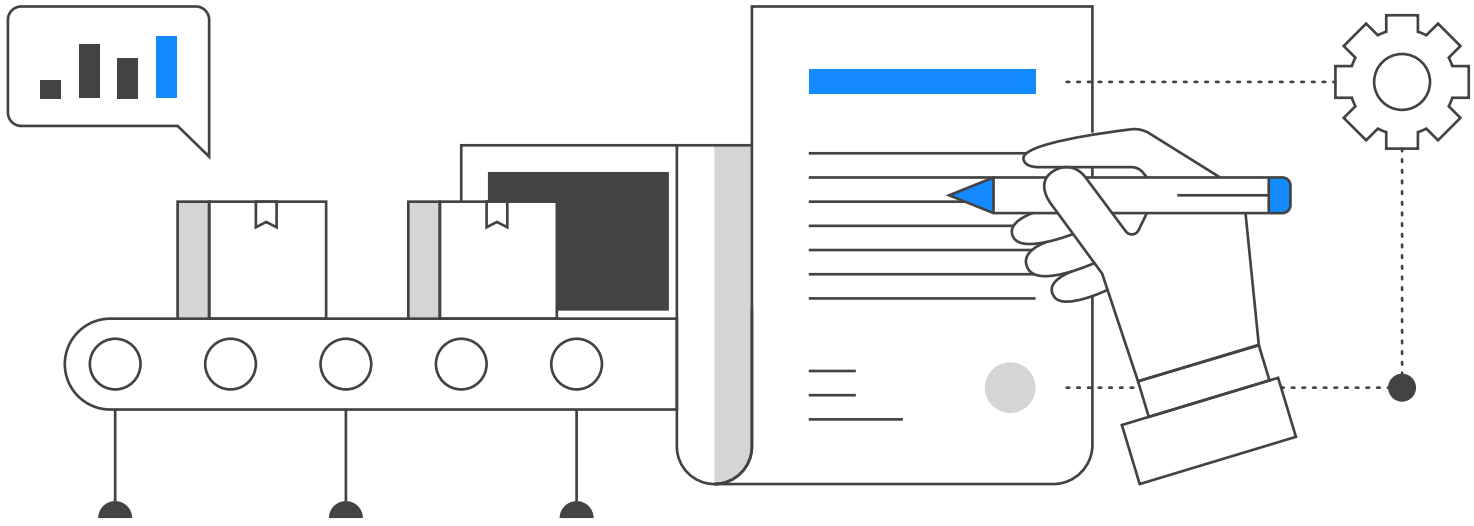
iLamp modules make each lamp future proof, and can tailored to the community's needs. For instance, environmental sensors can help allergy sufferers by providing real-time air quality data. Other modules can offer early warnings for forest fires, gas leaks, and extreme weather events, enhancing overall safety and preparedness.

This story is backed by the hard evidence of communities around the world that have undergone this transformation:

The Impact of Street Lighting on Crime, Fear, and Pedestrian Street Use - by Kate Painter - Institute of Criminology, University of Cambridge, UK https://popcenter.asu.edu/sites/default/files/137-painter-the_impact_of_street_lighting_on_crime_fear_an.pdf

Colege of Policing - Improved Street Lighting https://www.college.police.uk/research/crime-reduction-toolkit/street-lighting

Can deterrence persist? Long-term evidence from a randomized experiment in street lighting - Criminology and Public Policy



Local iLamp Micro Factories

The Local Benefits of iLamp

The iLamp solution brings a host of local benefits that extend beyond simple street lighting, creating a transformative impact on communities.

By licensing comprehensive rights including manufacturing, assembly, sale, and installation, iLamp provides the blueprint for each territory to develop microfactories, creating local jobs and fostering economic growth at a local level.

These microfactories, designed to produce high-mix, low-volume lamps, allow for the customisation of streetlights that fit the specific environmental and cultural needs of each community. This flexibility ensures that iLamps are not just functional but also align with the unique character of the city or region.

For municipalities, iLamp offers an opportunity to engage the local population through design competitions and public consultations on the sensors to be installed and services to be provided, allowing cities to involve residents in shaping the aesthetic and function of their public lighting. This fosters a deeper sense of ownership and pride, as the streetlights become an integral part of the city's identity.

As streetlights evolve into critical nodes in smart city infrastructures, iLamp ensures that these nodes remain locally owned, capturing economic value within the community, creating a virtuous cycle of investment and growth.

iLamp's locally trained teams handle sales, manufacturing, assembly, installation and maintenance. The presence of free iLamps in key areas such as

schools, churches, and community centres also enhances safety and connectivity, contributing to community well being.

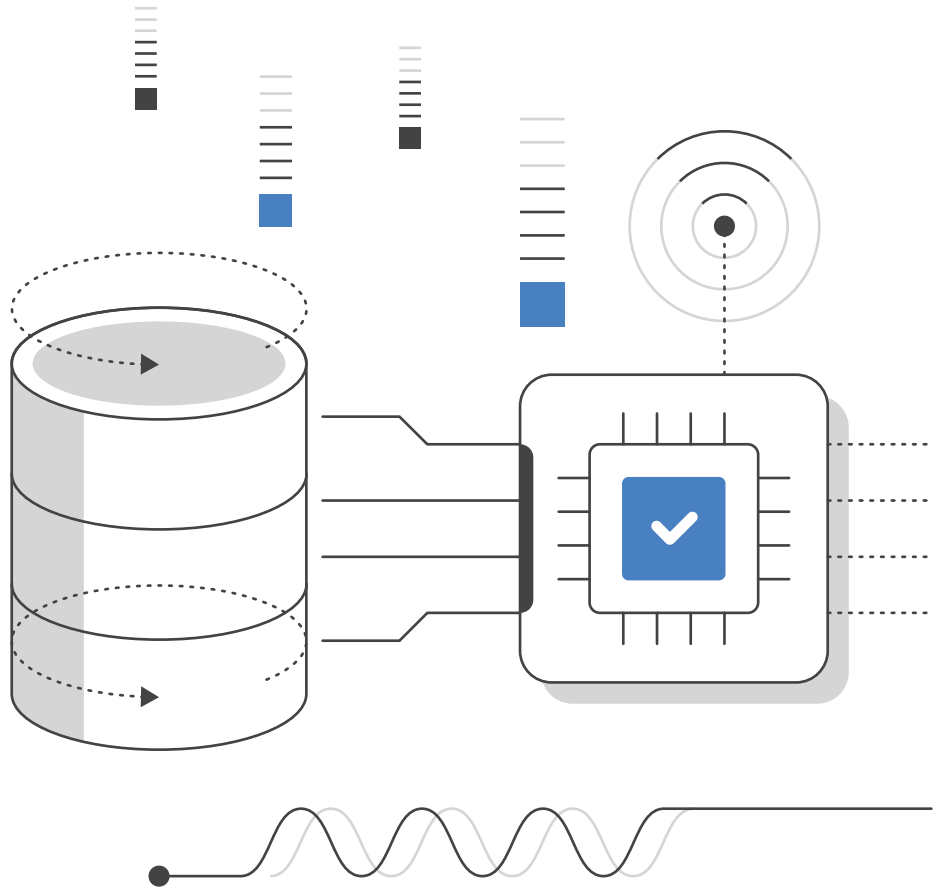
Beyond street lighting, iLamp's App Store and Module Store inspire local innovation, providing a platform where communities can develop and implement solutions tailored to their environment. These innovations can then spread to other regions with similar challenges, creating new revenue streams and further boosting local economies. This global-local exchange ensures that money not only stays within the community but attracts external investment as well.

With the potential to reduce crime, improve safety, and create economic opportunities, iLamp fosters a positive feedback loop of community benefits. Its partnerships with diverse local stakeholders—such as property developers, public works contractors, councils, community leaders, and various local consultants—ensure that each iLamp is a perfect fit for the community it serves, enhancing he vibrancy and sustainability of cities around the globe.

The iLamp Microfactory system empowers territories to efficiently prioritise production by leveraging locally available materials and expertise. This approach enables regions to make the best use of local resources while maintaining flexibility in production.

By integrating procurement with local assembly, the system strikes an optimal balance between sourcing materials and producing components locally, ensuring streamlined, energy efficient, and time sensitive manufacturing.

This model is particularly suited for high-mix, low-volume production, allowing iLamps and other innovations from the Conflow Power Group to be tailored to specific regional needs. The result is a sustainable, responsive manufacturing process that supports local economies and reduces logistical challenges.



Distributed Micro Data

Distributed Micro Data Center Solution

iLamp isn’t just a smart streetlight—it's a powerful, self sufficient on or off grid infrastructure with the potential to host a scalable network of distributed micro data centres (DMDCs). Leveraging its autonomous power generation, tamper resistant casing, and modular design, iLamp creates a secure, resilient solution for local data processing, storage, and advanced edge computing needs in urban and remote environments alike. This ensures both infrastructure efficiency and adaptability, empowering cities, counties, and even countries with reliable, "always on" connectivity and data processing capabilities.

iLamp’s on/off-grid capabilities and adaptable DMDCs position it for diverse applications, including telecommunications, public safety, energy, telemedicine, agriculture, and disaster response. By hosting data at the edge, iLamp minimises latency, supports regional data sovereignty, and ensures rapid access to essential information in emergencies. For rural areas, iLamp streamlines rural connectivity, enables precision agriculture and environmental monitoring, while in urban areas, it powers smart grids, telecommunications, and local resources.

iLamp’s unique design as a sustainable, energy efficient, modular lighting and utility system directly supports DMDCs, placing advanced technology

and data storage precisely where it's needed.

Resilience and Reliability

Networked Redundancy: With micro data centres distributed across regions, iLamp ensures data redundancy and uptime. If one iLamp unit experiences downtime, others in the network seamlessly maintain data continuity. This "always on" network is crucial for essential services like healthcare, emergency response, and finance.

Local Disaster Recovery: By hosting DMDCs in diverse locations, iLamp provides rapid data recovery options, maintaining business continuity during natural disasters, cyberattacks, or power outages. Each unit strengthens resilience.

Self Powered and Energy Efficiency

Autonomous Energy Generation: Each iLamp generates renewable energy via integrated solar panels and is optionally installed off grid, or with the grid as a backup, reducing grid reliance and lowering operational costs. This sustainable, low carbon power source is ideal for energy efficient data centre solutions, especially in underserved or remote areas.

Reduced Operational Independence: iLamp's self sustaining energy model minimises environmental impact, leading to a carbon neutral infrastructure capable of operating autonomously, independent of the local grid, making it a perfect solution for low infrastructure regions.

Enhanced Security

Secure and Tamper Resistant: Each iLamp unit is encased in a robust, tamper resistant enclosure, protecting against theft, vandalism, and environmental threats. These secure cases also safeguard sensitive data from physical access, enhancing data protection across the network.

Reduced Breach Risk: The distributed nature of iLamp's DMDCs minimises the risk of large scale data breaches, making the network more secure and compliant with global data security standards.

Scalability and Flexibility

Modular Expansion: iLamp units can be added or expanded geographically based on local demand, making them ideal for urban growth or scalable applications. As needs grow, additional iLamp DMDCs can be deployed without significant infrastructure changes, enabling localised data processing and reducing latency.

Edge Computing for IoT and Smart Cities: iLamp DMDCs process IoT device data locally, enabling rapid response times for applications like traffic management, environmental monitoring, and smart grids. Real time data analytics also support surveillance and autonomous systems, enhancing urban safety and infrastructure management.

Optimised Connectivity and Reduced Latency

Proximity Data Processing: By positioning DMDCs near end users, iLamp reduces data transfer times, optimising connectivity for low latency applications like streaming, gaming, and real time analytics. This is particularly valuable in remote areas or high density urban centres, where reliable access is essential.

Local Content Caching: iLamp DMDCs act as local content nodes, hosting popular content and reducing bandwidth usage for faster, more efficient access. This proximity provides high quality, low latency service for multimedia, gaming, and cloud based applications.

Data Sovereignty

Regional Data Storage: iLamp's localised data hosting supports compliance with data sovereignty regulations, like GDPR in Europe or HIPAA in the U.S. Each unit can store data within specific jurisdictions, allowing companies to operate in heavily regulated markets while ensuring data privacy and security.

Healthcare Data Processing: By hosting data centres at the edge, iLamp

facilitates fast, secure processing of sensitive health data, supporting telemedicine, diagnostics, and emergency response, all while adhering to local data security and privacy laws.

Reduced Capital Investment and Operational Costs

Cost Effective Micro Data Centers: Rather than investing in a single, large data centre, iLamp offers a modular alternative that spreads capital investment over smaller, scalable units. This decentralised approach lowers initial and maintenance costs while providing operators with the flexibility to manage each data centre independently or as a unified network.

Lowered Transmission Costs: Since iLamp DMDCs are self powered and networked close to end users, they cut down on long distance data transmission expenses, enabling localised, cost efficient infrastructure for smart city initiatives.

Eco Friendly and Low Impact

Minimal Ecological Footprint: Each self powered iLamp unit reduces the environmental impact of data centre operations, seamlessly integrating into both urban and rural landscapes without disrupting local ecosystems. This approach aligns with sustainable development goals and fosters resilient, eco friendly cities.

Support for National Defense and Emergency Operations: Deployable and self sufficient, iLamp DMDCs can provide essential communication, intelligence gathering, and data storage for military and disaster relief operations. This capability ensures secure, localised data access in emergency situations or mobile deployments.

Community and Economic Development

Job Creation and Local Manufacturing: iLamp deployment supports local economies by creating jobs in manufacturing, tech support, and maintenance. Each installation not only improves infrastructure but also fosters economic growth and community ownership, directly benefiting local economies.

Retail and E Commerce Support: For retailers, iLamp DMDCs enable real time data analytics for inventory management, customer behaviour insights, and location specific marketing strategies, enhancing the in store experience and reducing dependency on distant servers.

Scalable Power and Regional Microgrid Capabilities

On Demand Microgrid Scaling: iLamp's distributed units create a sustainable

microgrid, allowing regions to scale up from individual units to a robust, interconnected grid supporting larger residential, commercial, and industrial zones. This scalability provides long term adaptability to changing energy and data demands.

Reduced Dependence on Fossil Fuels: By integrating renewable sources and balancing energy generation with storage, iLamp microgrids lower reliance on fossil fuels, cutting costs and enhancing energy security for communities and businesses.

Applications of iLamp DMDCs in Smart Cities

Telecommunications and 5G Support: Located near telecom towers, iLamp DMDCs handle increased data demands from 5G networks, delivering faster speeds for mobile data and remote applications like VR and gaming with minimal latency.

Public Safety and Surveillance: iLamp DMDCs provide real time monitoring for public safety systems, enabling rapid response and improved emergency coordination for city infrastructure and public areas.

Education and Research: Campuses benefit from iLamp's localised data centres, supporting high demand research and academic applications while offering network resources for educational needs.

Energy and Utilities: iLamp supports smart grid management by balancing loads, integrating renewable energy, and enabling predictive maintenance for utility providers.

Agriculture and Environmental Monitoring: In rural areas, iLamp DMDCs enable precision agriculture applications like soil and water monitoring and wildlife tracking, supporting eco conscious and data driven farming practices.

The iLamp DMDCs represent an energy efficient, resilient infrastructure solution that brings data processing and connectivity closer to communities, transforming local landscapes with reliable, eco friendly technology.

Sublicensing Opportunity

Sublicensing is a pivotal strategy for iLamp Illinois, allowing for immediate initiation of operations across the diverse state. This method enables territorial holders to swiftly propagate the iLamp business model to subterritories, leading to rapid expansion and the potential for accelerated sales. The ability to sublicense instantly is crucial in securing vital early-stage revenue, offering financial stability from the outset.

Territorial holders in Illinois benefit uniquely from assembling a team of local experts, who possess an innate understanding of the state's varied and vast landscape. These professionals, empowered by the independence sublicensing provides, can operate with considerable autonomy. This autonomy promotes growth and innovation without constant oversight, creating a dynamic team environment that is agile and finely attuned to the specific needs of the Illinois market.

Leveraging local expertise, iLamp Illinois can collaborate with local professionals like manufacturers, businesspeople, and regional specialists who have a profound knowledge of their specific areas within Illinois. Sublicensing to these local experts ensures that iLamp's solutions are precisely tailored to meet the state's distinct challenges and opportunities, thereby establishing trust and credibility within local communities.

Sublicensees in Illinois are skilled in navigating the state's bureaucracy, regulations, policies, and understanding cultural nuances and market dynamics. This expertise facilitates more efficient market penetration. It also distributes operational risks among a wider group of stakeholders, reducing the financial and operational burden on the primary license holder. This model encourages local stakeholder involvement, fostering a sense of ownership and commitment to iLamp's success, potentially leading to stronger advocacy and brand loyalty across Illinois.

The sublicensing model is inherently scalable, allowing iLamp Illinois to extend its influence throughout the state without the proportional increase in capital investment and resources typically associated with such expansion. The following price list reflects market prices as assessed by Cede Bank, specifically tailored for the Illinois market.

SUBLICENSING OPPORTUNITY

State	Population	Street Lights	Street Lights	Territory Price
Chicago	2,746,388	238,936	20,787	$13,731,940.00
Aurora	180,542	15,707	1,367	$902,710.00
Joliet	150,362	13,081	1,138	$751,810.00
Naperville	149,540	13,010	1,132	$747,700.00
Rockford	148,655	12,933	1,125	$743,275.00
Elgin	114,797	9,987	869	$573,985.00
Springfield	114,394	9,952	866	$571,970.00
Peoria	113,150	9,844	856	$565,750.00
Waukegan	89,321	7,771	676	$446,605.00
Champaign	88,302	7,682	668	$441,510.00
Cicero	85,268	7,418	645	$426,340.00
Schaumburg	78,723	6,849	596	$393,615.00
Bloomington	78,680	6,845	596	$393,400.00
Evanston	78,110	6,796	591	$390,550.00
Arlington Heights	77,676	6,758	588	$388,380.00
Bolingbrook	73,922	6,431	560	$369,610.00
Decatur	70,522	6,135	534	$352,610.00
Palatine	67,908	5,908	514	$339,540.00
Skokie	67,824	5,901	513	$339,120.00
Des Plaines	60,675	5,279	459	$303,375.00
Orland Park	58,703	5,107	444	$293,515.00
Oak Lawn	58,362	5,077	442	$291,810.00
Berwyn	57,250	4,981	433	$286,250.00
Mount Prospect	56,852	4,946	430	$284,260.00
Tinley Park	55,971	4,869	424	$279,855.00
Oak Park	54,583	4,749	413	$272,915.00
Wheaton	53,970	4,695	408	$269,850.00
Normal	52,736	4,588	399	$263,680.00
Hoffman Estates	52,530	4,570	398	$262,650.00
Downers Grove	50,247	4,371	380	$251,235.00
Glenview	48,705	4,237	369	$243,525.00
Total				**$26,173,340.00**

Incentives, Grants and Programs

In September 2021, Illinois made a bold commitment towards a greener future by passing The Climate and Equitable Jobs Act (CEJA). This groundbreaking legislation not only sets ambitious energy savings goals but also integrates equity and job creation into the state's environmental strategy. This article delves into the specifics of CEJA and highlights several initiatives demonstrating Illinois' dedication to this act.

CEJA requires the Illinois Commerce Commission to establish new cumulative persisting annual savings (CPAS) targets beyond 2030. Under this directive, ComEd must achieve 21.5% cumulative persisting annual savings by 2030, while Ameren Illinois is tasked with reaching 16%. Furthermore, the act permits electric utilities to offer electrification programs that reduce net energy usage and contribute to CPAS targets, with specific guardrails in place.

The legislation also allows utilities to claim energy savings credit for contributing to building energy codes, appliance standards, and municipal actions like building performance standards. Additionally, it introduces amendments affecting electric utilities' programs, including changes to the spending cap, an opt-out option for large customers, and increased funding for programs aiding income-qualified customers.

CEJA includes provisions for lost revenue recovery, allowing electric utilities to rate-base their energy efficiency costs. Moreover, the act incentivizes utilities to meet and exceed their savings goals, with the potential for performance incentives.

High-Value Grants Fueling Safety Innovations

In its quest to achieve Vision Zero, Illinois is not just innovating in road safety and public safety systems but also backing these initiatives with substantial financial support.

SAFE STREETS AND ROADS FOR ALL (SS4A) Grant

This substantial grant program, with a budget of $1.177 billion for FFY 2023, is targeted at ensuring safe streets and roads. It supports regional, local, and tribal initiatives with plans and projects that aim to prevent roadway deaths and serious injuries.

Significant Grant Allocations

Planning and Demonstration Grants: $100,000 to $10 million for all applicants.

Implementation Grants: $2.5 million to $25 million, focusing on infrastructure projects and strategies identified in safety action plans.

Illinois' investment in road safety and public safety is clearly illustrated by the significant funding allocated to various grant programs. These substantial financial commitments underscore the state's serious approach to achieving Vision Zero and ensuring the safety of all road users. Through these grants, Illinois is not only addressing immediate safety concerns but also laying the foundation for a safer and more secure future.

Example Projects (already funded)

Chicago Smart Lighting Streetlight Modernization Program

- Completion announced by CDOT in February 2022.
- Projected to save $100 Million in electricity costs over 10 years.
- Conversion of over 280,000 HPS streetlights to high-efficiency LED lights.

Led by Ameresco Inc., with emphasis on diverse subcontracting and job creation for Chicago residents at a cost of $160,000,000

Move Illinois: The Illinois Tollway Driving the Future

- A 15-year, $14B capital program adopted in 2011.
- Requires installation of energy-efficient lighting and smart highway systems.

Further incentives can be found on the following links:

smartenergy.illinois.edu/illinois-incentives/

www.energy-grants.net/illinois-energy-grants-rebates-loans-incentives/

epa.illinois.gov

idot.illinois.gov/transportation-system/transportation-safety/safety-grants/apply.html

https://icjia.illinois.gov/grants/programs/

https://senatormcconchie.com/grant-assistance/

https://iemaohs.illinois.gov/hs/hsac/grants.html

The Market & Financials

Illinois, with its rich history and progressive outlook, offers a vibrant market for infrastructure advancements. The state's commitment to modernization and ecological urban design creates a prime setting for pioneering infrastructure solutions like iLamp. Illinois' diversity, from its major urban centers like Chicago to its widespread rural areas, provides a broad spectrum of opportunities for street lighting solutions.

Market Segmentation

By Area : Urban (Chicago, Springfield, Rockford) vs. Rural (Southern Illinois, Central Illinois regions)

By Need : Updating outdated infrastructure vs. New installations in developing urban districts.

By Application : Public streets, highways, recreational areas, private complexes, and parking lots.

Digital Cities : Leading cities such as Chicago and Springfield, known for their smart city initiatives, offer significant opportunities for iLamp.

Green Initiatives : Illinois' dedication to environmental sustainability aligns well with iLamp’s technologies.

Decentralized Systems : As Illinois advances its energy infrastructure, systems like iLamp that lessen dependence on the main grid are increasingly valuable.

Total Addressable Market (TAM):
The total number of public streetlights required in Illinois is estimated at 1,096,200 using the Northeast Energy Efficiency Partnerships formula.

Serviceable Available Market (SAM):
Given Illinois’ diverse infrastructure needs and its receptiveness to innovative technologies, targeting 11% of the TAM.

Serviceable Obtainable Market (SOM):
Considering factors like market competition, technology adoption rate, and specific infrastructure conditions in Illinois, a conservative target of 5% of the SAM per sublicensee with a growth rate of 25%.

The iLamp Financial Model

The following financial model is based on a business model of selling rights for the outlined areas. It assumes the territorial license holder focuses only on the sale of sublicensing of rights and the ongoing royalties attached to those sales within the state.

This model therefore does not directly cover the operation of these territories, which over the ten years covered by the financial model, allowing for one year of setup and 25% growth rate, generate significant revenue of their own.

In the model the highest value sublicenses are sold first, bringing in immediate capital, over the 10 year period covered in this financial model, 30 identified sublicensable territories are sold.

The sales income decreases over time as the most valuable rights are sold first, as sublicensee's grow in their respective areas, royalties paid to the territorial license holder increase over time.

Financial Model Structure

The financial model for iLamp is built around a territorial licensing system, where the territorial license holders are instrumental in expanding iLamp's reach across the state. The model includes:

Sublicense Sales: The territorial license holder is assumed to sell three sublicenses annually.

Revenue Generation: Sublicensees are projected to start generating revenue after an initial setup period of one year, allowing time for market penetration and establishment.

Market Capture: Annually, each sublicensee aims to capture 5% of the Serviceable Available Market (SAM), with a growth target of 25% set for each subsequent year.

Sublicense Pricing: Pricing for each sublicense is calculated based on the number of streetlights within the territory.

Royalty Fees: A royalty fee, typically around 15%, is charged by the territorial license holder on the revenue of each sublicensee.

Further Information

Product Costing: The cost of implementing iLamp is estimated per streetlight or per area covered, taking into account installation and maintenance costs.

This model uses the NEEP formula designed to estimate the number of public streetlights in a given area beased on population. It does not include: Power as a Service revenues, margins charged on licensing state born technologies to other regions or countries through the iLamp App Store or the private street-lighting market including carparks, campuses and private developments.

This model is therefore by no means exhaustive and based on assumptions and estimates subject to change, and it doesn't guarantee future performance or outcomes. It's designed as a guide for decision making and planning, with a customizable spreadsheet available for licensees to adjust parameters according to their local market conditions, ensuring relevance and accuracy in different regional contexts.

FINANCIAL MODEL

Year	Territories Sold	Territory Sales Income	Royalties Received	Territory-Wise Revenue
1	Chicago,Aurora,Joliet	**$15,386,460.00**	**$0.00**	**$0.00**
2	Naperville,Rockford,Elgin	**$2,064,960.00**	**$1,572,211.56**	**$10,481,410.42**
3	Springfield,Peoria,Waukegan	**$1,584,325.00**	**$2,176,265.16**	**$14,508,434.42**
4	Champaign,Cicero,Schaumburg	**$1,584,325.00**	**$2,882,220.16**	**$19,214,801.06**
5	Bloomington,Evanston,Arlington Heights	**$1,172,330.00**	**$3,731,673.58**	**$24,877,823.90**
6	Bolingbrook,Decatur,Palatine	**$1,061,760.00**	**$4,784,382.42**	**$31,895,882.79**
7	Skokie,Des Plaines,Orland Park	**$936,010.00**	**$6,088,970.25**	**$40,593,135.02**
8	Oak Lawn,Berwyn,Mount Prospect	**$856,760.00**	**$7,676,863.92**	**$51,179,092.80**
9	Tinley Park,Oak Park,Wheaton	**$822,620.00**	**$9,721,682.80**	**$64,811,218.69**
10	Normal,Hoffman Estates,Downers Grove	**$777,565.00**	**$9,721,682.80**	**$101,955,381.48**
Total		**$25,469,550.00**	**$38,634,269.87**	**$257,561,799.10**

INCOME STATEMENT

REVENUES	YEAR ONE	YEAR TWO	YEAR THREE
Royalties received	$0.00	$1,572,211.56	$2,176,265.16
Sublicense sales	$15,386,460.00	$2,064,960.00	$1,584,325.00
Net Revenues	$15,386,460.00	$3,637,171.56	$3,760,590.16

COST OF GOODS SOLD	YEAR ONE	YEAR TWO	YEAR THREE
Cost of sales	$1,000,000.00	$363,717.16	$376,059.02
Gross Profit	$14,386,460.00	$3,273,454.41	$3,384,531.15

EXPENSES	YEAR ONE	YEAR TWO	YEAR THREE
Royalties paid	$1,692,510.60	$400,088.87	$188,029.51
Selling & Marketing	$2,154,104.40	$509,204.02	$526,482.62
Rent & Utilities	$307,729.20	$72,743.43	$75,211.80
General & Administrative	$769,323.00	$181,858.58	$188,029.51
Salaries & Wages			
Total Operating Expenses	$4,923,667.20	$1,163,894.90	$977,753.44

OPERATING INCOME	YEAR ONE	YEAR TWO	YEAR THREE
Operating Income	$9,462,792.80	$2,109,559.51	$2,406,777.70
Income Before Taxes	$9,462,792.80	$2,109,559.51	$2,406,777.70
Income Tax	$898,965.32	$200,408.15	$228,643.88
Net Income	$8,563,827.48	$1,909,151.35	$2,178,133.82

iLamp Illinois and the paradigm shift

iLamp is charting a pioneering course in Illinois, with a vision that transcends merely entering the market to fundamentally transforming it.

A key decision for iLamp Illinois involves balancing operational control against the distribution of sublicenses. Direct management could yield significant profits and more control over profit margins. Yet, collaborating with skilled local entities might accelerate market entry, leading to quicker revenue growth and an immediate revenue boost.

New income opportunities emerge by leveraging Illinois-born hardware and software innovations, creating a comprehensive ecosystem of solutions. Through iLamp's extensive distribution network and app store, these innovations can reach new markets, each contributing to new, lucrative revenue streams for iLamp Illinois.

The breadth of our venture goes well beyond the product. There are numerous untapped local ventures in Illinois, offering many opportunities. Establishing local production could position iLamp Illinois as a pivotal supplier in the region. By monetizing the real estate of lamp poles and utilizing various hardware and software combinations, along with subscription services like Power As A Service, the income potential is diverse and significant.

Supported by the Conflow Power Group, iLamp Illinois benefits from early access to and priority on all technological advancements and innovations from CPG, giving it a significant advantage as a leading innovator in Illinois.

The partnership with the ILOCX platform additionally strengthens iLamp Illinois in managing sublicense sales as effectively as territorial license sales. This provides a crucial mechanism for sublicensees to raise capital within their own markets, fostering growth and market expansion.

The global urban landscape is on the cusp of a significant transformation, and our innovative solutions are not just sought-after; they are essential. As cities evolve, iLamp's state-of-the-art solutions light the way forward. iLamp Illinois is set to be a key player in this critical shift, epitomizing progress and innovation.

Potential partners

Commonwealth Edison Company (ComEd)

https://www.comed.com/

ComEd is one of America's largest utilities. The company is headquartered in Chicago with more than 4 million customers across the northern Illinois region. In 2012, ComEd launched one of the largest grid modernization and Smart Grid programs in the nation, supporting thousands of jobs and driving innovation to meet evolving customer needs.

Ameren Illinois

https://www.ameren.com/

Ameren Corporation is an American power company created December 31, 1997, by the merger of St. Louis, Missouri's **Union Electric Company** (formerly NYSE: UEP) and the neighboring **Central Illinois Public Service Company** (CIPSCO Inc. holding, formerly NYSE: CIP) of Springfield, Illinois. It is now a holding company for several power companies and energy companies. The company is based in St. Louis, serving 2.4 million electric, and 900,000 natural gas customers across 64,000 square miles in central and eastern Missouri and the southern four-fifths of Illinois by area.

Ameren is the holding company for the following:

- Ameren Missouri
- Ameren Illinois
- Ameren Transmission Company
- Ameren Services

Jo-Carroll Energy Inc

https://www.jocarroll.com/

Headquartered in Elizabeth, Illinois, Jo-Carroll Energy is a not-for-profit distribution cooperative. We service approximately 26,500 electric and natural gas accounts in Jo Daviess, Carroll, Whiteside and Henry counties. Our dedicated staff of more than 75 employees oversees more than 2,432 miles of electric line and 304 miles of natural gas pipe as well as a number of programs and services.Today, cooperatives like Jo-Carroll Energy are still the primary providers of electricity in rural Illinois areas. Located in the diverse rural area of northwestern Illinois, we serve small businesses and industries, farms, residences and second homes, cabins and recreational homes.

McDonough Power Cooperative

https://www.jocarroll.com/

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McDonough Power Cooperative

https://mcdonoughpower.com/

McDonough Power Cooperative, headquartered in Macomb, Illinois, is a consumer-owned corporation that supplies electric power to members in portions of Fulton, Hancock, Henderson, Knox, McDonough, Schuyler and Warren counties in West-Central Illinois. More than 5,000 households and businesses receive power from McDonough Power. We are a distribution utility-we don't generate our own electricity. We purchase our power from Prairie Power, Inc., which is headquartered in Springfield, Illinois. Prairie Power is a generating and transmission cooperative which is owned and controlled by rural electrics in the central part of Illinois that receive electricity from that organization. McDonough Power is wholly owned by the people it serves and is governed by a board of directors elected by members in each of the nine voting districts. Approximately 17 employees work for McDonough Power to serve its residential, commercial and industrial accounts.

Mt. Carmel Public Utility Co.

https://mtcpu.com/

Mt. Carmel Public Utility Co. is an Investor Owned Utility incorporated in the State of Illinois on November 14, 1913. Mt. Carmel Public Utility Co. delivers electricity and natural gas to Residential and Non-Residential customers in the city of Mt. Carmel, IL, parts of Wabash County and to residents and businesses in the Villages of Allendale, Patton, St. Francisville, Bellmont, Keensburg, and Cowling.

Navopache Electric Cooperative

https://navopache.org/

Formed in 1946, Navopache Electric Cooperative is an electric cooperative nonprofit membership corporation, serving over 39,000 members with over 45,000 meters across the White Mountains of eastern Illinois and western New Mexico. Our service territory is over 10,000 square miles with 3,500 miles of line.

Western Illinois Electrical Coop.

https://wiec.net/

Western Illinois Electrical Coop. is a member-owned electrical cooperative based in Carthage, Illinois. Organized in 1938, WIEC was established to bring the convenience of electricity to the rural areas of Hancock and Henderson Counties. (The service territory now includes portions of Adams and McDonough Counties as well.)

Further potential contacts

Solar Power Midwest

Ottawa, IL

+1 844 497 6527

solarpowermidwest.com

Certasun

Buffalo Grove, IL

+1 312 500 7803

certasun.com

Blue Raven Solar

Hanover Park, IL

+1 855 606 0837

blueravensolar.com

EFS Energy

Springfield, IL

+1 844 337 6527

efsenergy.com

Headline Solar

Hoffman Estates, IL

+1 833 443 5463

headlinesolar.com

Stateline Solar

Belvidere, IL

+1 815 580 3011

statelinesolar.net