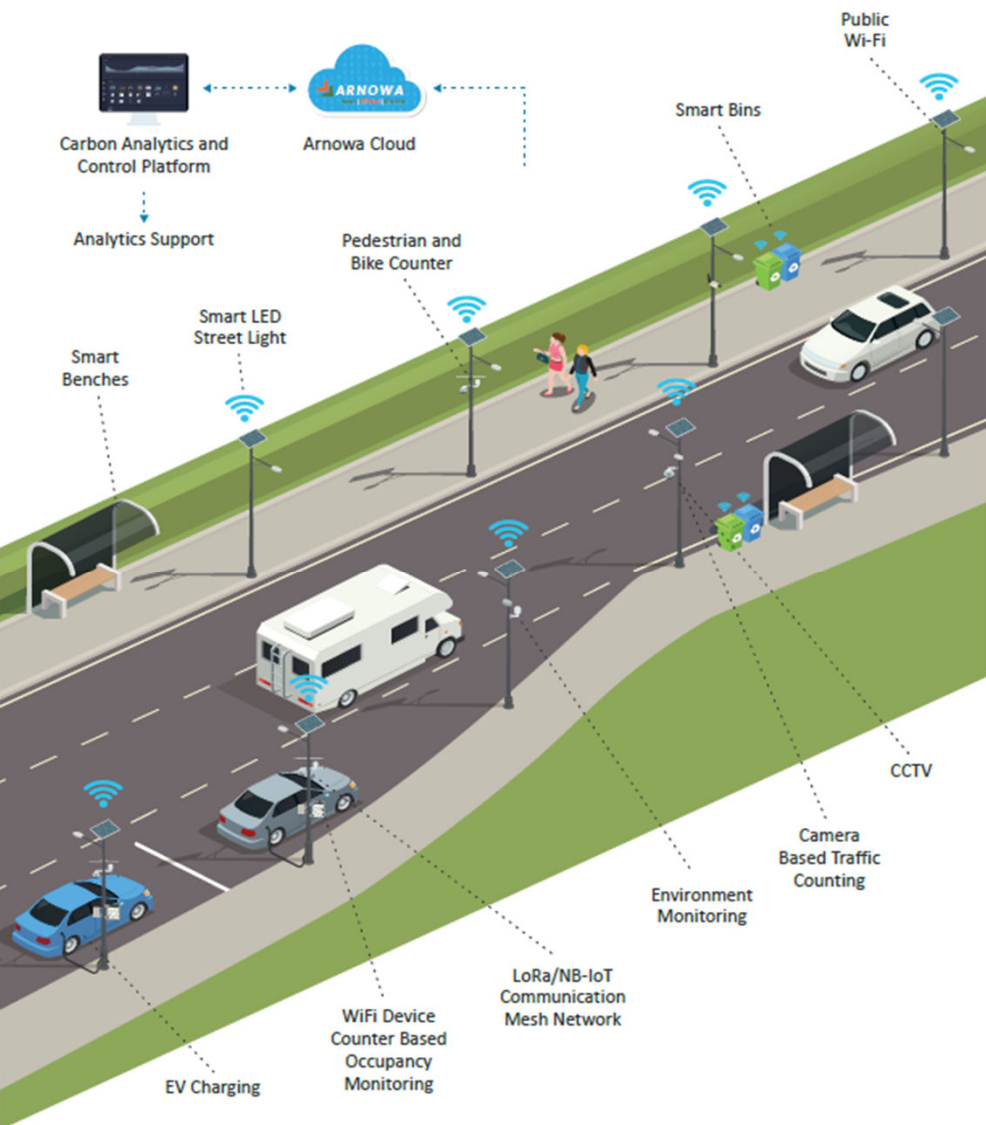


# SMART LED STREETLIGHT

REPLACEMENT SUPER  
TRIAL PROPOSAL





# Motivation for the project

- Streetlighting represents major energy costs and GHG emissions for LG
- Currently includes various luminaire types and quality of lighting, including mercury vapour
- Opportunity for significant savings to replace with LED
- Smart LED offers additional functionality and community benefits

Image Source: ARNOWA Smart Street Infrastructure

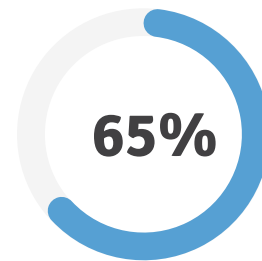
# Opportunity

Smart LED has the potential to achieve:

- Superior lighting quality that meets standards
- Smart capability – improved management, performance and metering

## Recent developments

- LEDs being included in SUPP projects
- LED Trial in Cockburn (170 lights) and Smart LED Trial in Melville (100 lights)
- Access to WP ICT architecture and data management system



Reduction in greenhouse gas emissions compared to standard streetlights

**AND** Major energy savings of up to

# 40-50%

for each participating Local Government.

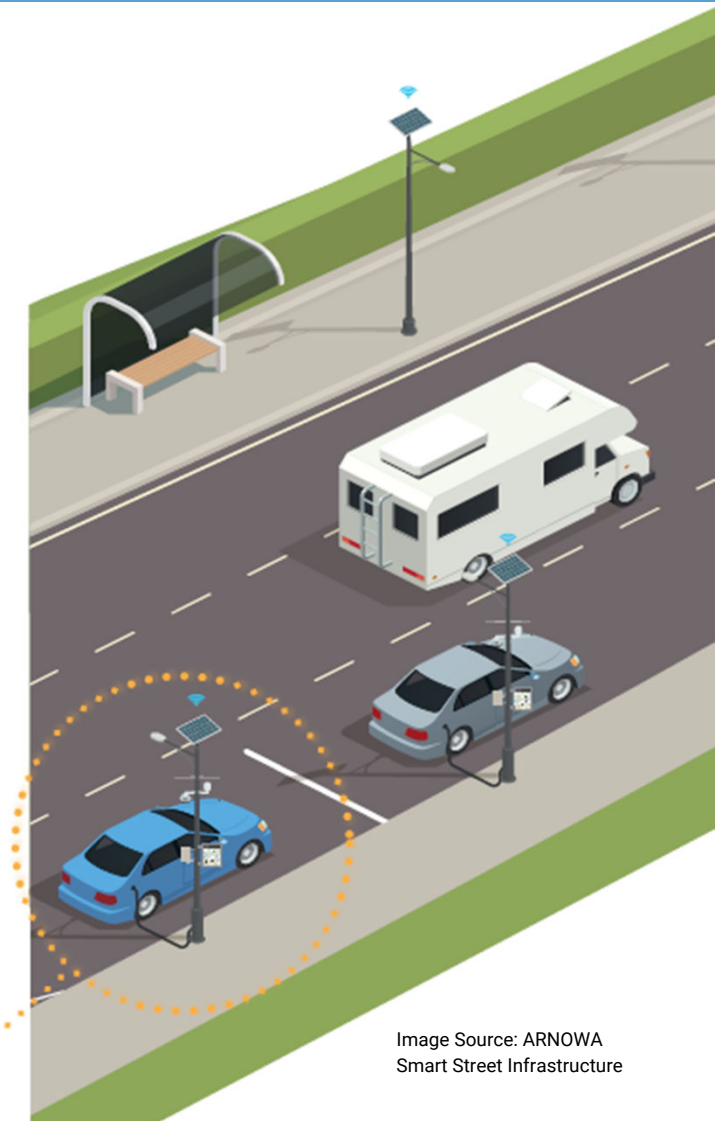
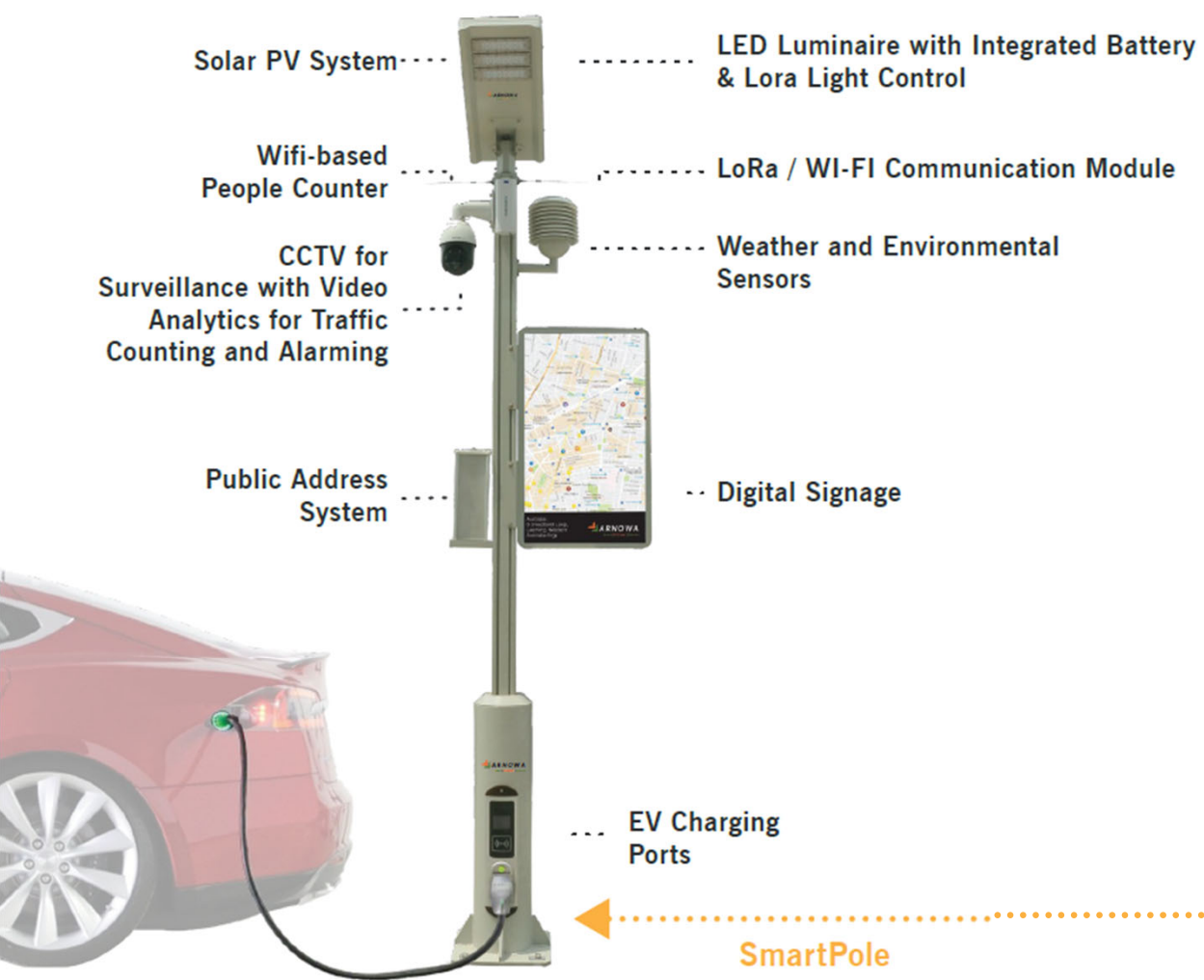


Image Source: ARNOWA  
Smart Street Infrastructure

# Consortia Formation

Includes like minded Councils

**47,000** LIGHTS

in total (17% of street lights in the SWIS)

- Prepared to meet LED replacement capital costs
- Bulk replacement attractive value proposition due to scale
- Aligned to Smart City aspirations and community benefits
- Super Trial concept

# Business Case

Jointly funded arrangement

- Ironbark commissioned to prepare Business case
- Technical and implementation information drawn from Eastern States
- Compelling rationale put forward to Western Power
- \$25M-\$29M capital cost by LGs
- Currently being assessed with pricing proposal

100,000

TO

125,000

in tCO<sub>2</sub>-e savings annually which  
includes investment in smart technology

# Political Engagement

- GRA Partners commissioned to provide public relations support
- Engaging with Minister and Advisors, Western Power Executive and local MPs
- Leverages detailed understanding of government policy and political landscape
- Awaiting response from the Minister on proposal





# City of Melville

## 8,950

### STREETLIGHTS

in total at a cost of \$6.34M

- Strong partnering role with City of Cockburn and engagement with Western Power
- Shared local MPs with neighbouring LGs (Cockburn and Canning)
- Supportive Council – Climate Emergency Declaration and Climate Action Plan
- 2 year rollout period proposed
- Funded through reserves, with 8 year payback period
- GHG emissions savings of 1,500 CO<sub>2</sub>-e
- Energy savings between \$850K (Year 4) to \$1.26M (Year 20)
- Capital cost, energy savings and reduced payback possible through negotiations on RAB and discounts through bulk purchase







# Key Barriers

- Previous resistance due to costs for Western Power and State Government
- Challenges WP business model – Asset management, RAB, Contributions Tax
- Small part of WP business (only 1%)
- Concerned about precedent set with LGs through Super Trial
- Being considered as Partner rather than Customer by WP

# Next Steps

- Gain support from local MPs
- Assess feedback from Minister
- Assess feedback from WP on business case and pricing proposal
- Negotiate potential cost savings – e.g. bulk purchase on Smart luminaires, no or negotiated RAB & Contribution tax
- Confirmation on establishment of ICT architecture by WP
- Agreement from WP to proceed