

# **Smart Cities Dublin** November 7, 2025, 7 am PST Live Stream Seattle Washington



Isvari Maranwe

Join us for a Smart Cities session on Dublin Ireland. Find out why this City is one of the tops in the world. Smart Medicine, Smart Health, Smart Water, Smart Technology are only a few of the traits of this City. Join for a local view of this great city. Can we save you a pass? Yes, Register at: mytechconference.com/event

Not Too Smart: The Role of Al In Smart Cities

In this talk, Isvari Maranwe covers the rise of AI and how this may impact Smart Cities, plus the critical need for protecting against the downsides of artificial intelligence. An award-winning



Laiz Souto

Cybersecurity attorney, AI ethicist, tech founder, and policy analyst, Maranwe has a unique view on the future of cyberspace, its integration into the traditional world, and where we're all going from here.

# Isvari Maranwe

Founder & CEO, Yuvoice | Award-Winning Cyber & Tech Attorney | Political Analyst, Speaker, and Influencer with 350K+ Followers.



**Laiz Souto** 

# Smart loads and Power Grid Requirements

This talk will provide an overview of challenges and opportunities brought by smart loads, such as electric vehicles, for electricity networks. It will discuss planning and operational challenges and opportunities in present-time electricity networks and present results from an investigation of onboard electric vehicle charging performance against grid code requirements in Denmark.

Dr Laiz Souto is an electrical power engineer and academic researcher with over 10 years of international experience. She is currently a Lecturer in Electrical Power Engineering at the University of Bath (United Kingdom), a Visiting Professor at the Northeast Electric Power University (China). Dr Souto obtained her degree in Electrical Engineering, option Electrical Energy and Automation, and her M.Sc. degree in Electrical Power Systems, from the University of Sao Paulo (Brazil), and her Ph.D. degree in Electrical Engineering and Artificial Intelligence from the University of Girona (Spain). Before joining the University of Bath, she was a Senior Postdoctoral Researcher at the University of Bristol (United Kingdom), where she conducted research on resilience enhancements in energy networks in collaboration with academia, industry, and government. Dr Souto had visiting positions at the KTH Royal Institute of Technology during her M.Sc. program, at the University of Texas at Austin during her Ph.D. program, and at the Fraunhofer IEE (Germany) and Technical University of Denmark (Denmark) during her academic appointments in the UK. She is a co-investigator of the EPSRC Supergen Energy Networks Hub, an active member of the IEEE European Public Policy Committee, and member of the CIGRE Working Groups D2.52 (artificial intelligence application in power systems) and C6-C1-CIRED.50 (planning distribution networks under significant uncertainties).

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# **Executive Summary Dublin's Energy-Smart City Transition 2024–2050**

Dublin stands at a pivotal moment in its evolution as a smart, sustainable European capital. The city's rapid growth as a global technology and financial hub has driven soaring energy demand—particularly from data centres and digital industries—while the parallel imperative for deep decarbonisation demands a complete transformation of the energy system. The Dublin City Development Plan commits to a zero-carbon city by 2050, aligning with Ireland's national Hydrogen Strategy and Climate Action Plan.

To reconcile these twin goals economic competitiveness and climate neutrality—Dublin requires a next-generation integrated energy architecture built on five interlocking pillars: renewable supply, storage and flexibility, grid modernisation, demand integration, and coordinated governance. This framework enables the city to balance industrial reliability with urban sustainability.

# **Strategic Direction**

- Supply: Scale local and regional renewables—offshore wind, solar, geothermal, and waste heat—to power both industry and city services.
- Storage & Flexibility: Combine battery systems for short-term balancing with green hydrogen for long-duration and sector coupling (power → heat → transport).
- Grid Infrastructure: Upgrade and digitalise the network through smart meters, sensors, and digital twins to manage complex, decentralised energy flows.
- Demand Integration: Engage industrial loads (data centres, financial hubs) and citizen services (EVs, buildings, district heating) as active participants in the energy system.
- Governance & Finance: Build strong city-region coordination, attract public-private investment, and align regulatory frameworks for hydrogen, storage, and flexible demand.

# **Progress and Outlook**

Dublin has already laid solid foundations—smart metering and monitoring in public buildings, regional EV-charging frameworks, and hydrogen pilot clusters are in motion. Between 2026 and 2032, large-scale offshore wind, industrial battery deployments, and district-heating networks will come online. By 2040, hydrogen and firm low-carbon capacity will anchor a resilient, renewable-powered grid.

# Vision for 2050

By mid-century, Dublin will operate on 100 % renewable energy, supported by intelligent digital infrastructure and robust storage systems. Industrial hubs will run on certified zero-carbon power, mobility will be fully electric or hydrogen-based, and smart grids will seamlessly coordinate supply and demand.

# **Key Outcomes**

- Net-Zero Carbon Energy Supply by 2050.
- High-Reliability Power for industrial and digital sectors.
- Integrated District Heating & Smart Mobility across the city.
- Inclusive, Data-Driven Governance ensuring resilience and social equity.

In short, Dublin's energy transition is not just an environmental necessity—it is a strategic opportunity to fuse technological innovation with urban sustainability. The roadmap presented here demonstrates how Dublin can become Europe's leading example of a smart, decarbonised, and resilient energy city.



Dr. Sivachidambaram Pichumani

**Dr. Sivachidambaram Pichumani** is an Metallurgist, Manufacturing engineer, Automotive Expert and Energy strategist with over 13 years of experience across automotive, energy, and sustainability sectors. He has led R&D and strategic programs in Electric Vehicles (EVs) and Energy Storage Systems (ESS), with expertise in prototyping, testing, and reliability engineering.

He holds a Ph.D. in Materials & Manufacturing from *SASTRA University*, an M.Sc. in Energy Management from *ESCP Business School (London & Paris)*, and is pursuing an Executive MBA at SPJIMR, Mumbai. His research has produced 70+ papers, a patent, and international recognition.

From 2018–2023, he led EV R&D initiatives at *Tube Investments of India*, followed by a tenure at *Wheels India Limited (2023–2024)*, where he managed product testing, validation, and ISO 50001 implementation. In late 2024, as a Business Analyst at Finlatics, he applied Power BI, VSM, and OEE tools for process improvement.

In early 2025, as a Consultant at Synertics, he coordinated cross-border projects, mapped operational costs, and enhanced VAS workflows while supporting market strategy and regulatory compliance. Later in 2025, at Blackmont Consulting (London), he led renewable energy market analyses and digital go-to-market strategies for Power Purchase Agreement platforms.

He always bridges engineering excellence with business strategy and ESG leadership, helping organisations thrive through energy transition, sustainability, and digital innovation.

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