



TRANSFORMING ENERGY POLICIES –
ADAPTING ENERGY REGULATION

23rd ERRA ANNUAL
CONFERENCE

27-28 April, 2026

HOSTED BY ÚRSO
in Bratislava, Slovakia



TRANSFORMING RETAIL SUPPLY AND CUSTOMER ENGAGEMENT

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SESSION V: TRANSFORMING RETAIL SUPPLY & CUSTOMER ENGAGEMENT

#ERRAConference2026

Advancing **safe, reliable, affordable and environmentally responsible** electricity for society through global collaboration, thought leadership, and science & technology innovation.

- Independent
- Non-Profit
- Collaborative



Nuclear



Environment



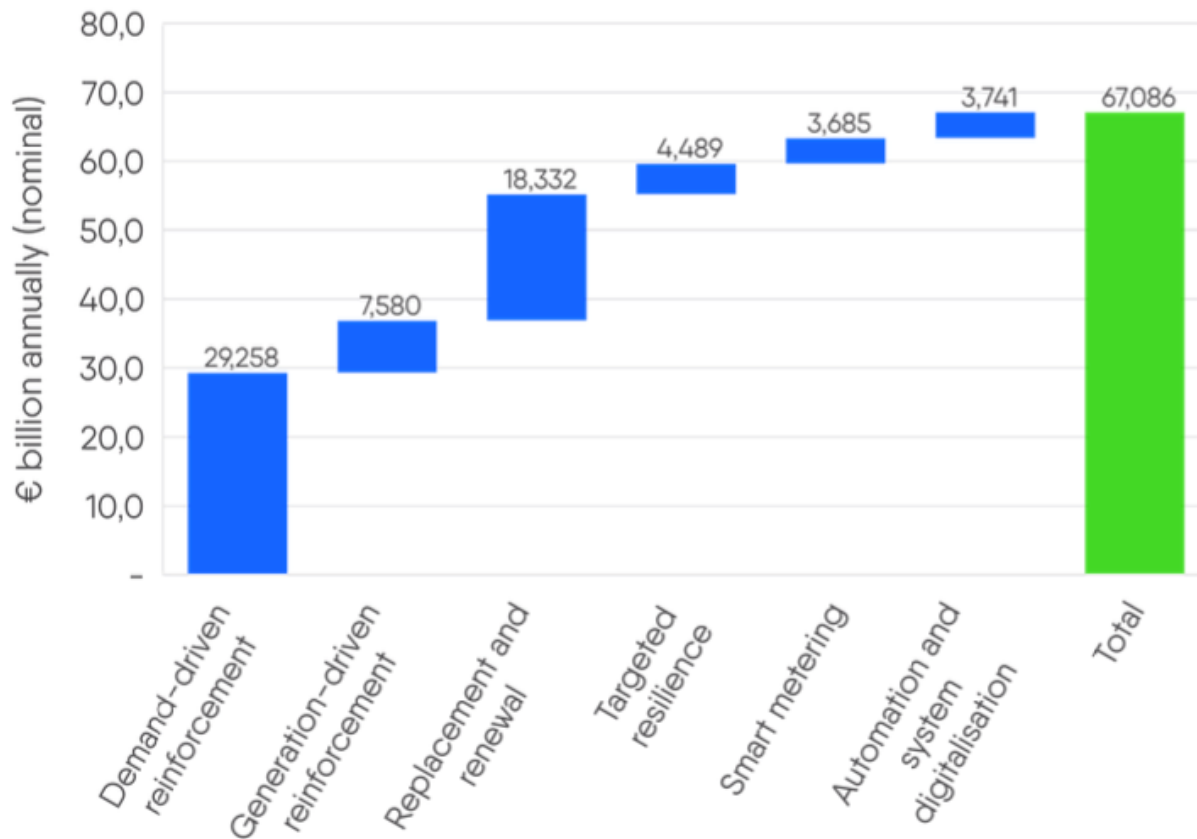
Generation



Power Delivery
and Utilization

GRID INVESTMENT REQUIREMENTS (EURELECTRIC)

Annual average grid investment in the EU27+Norway (2025–50)



€67bn/year

Of investment is required between 2025 and 2050 in the EU27+ Norway

12bn saved/year

if emerging grid strategies are realised & supported by right regulatory environment

2x

Current investment between 2025–2040 in period of growth

1.7x

Current investment between 2041 and 2050

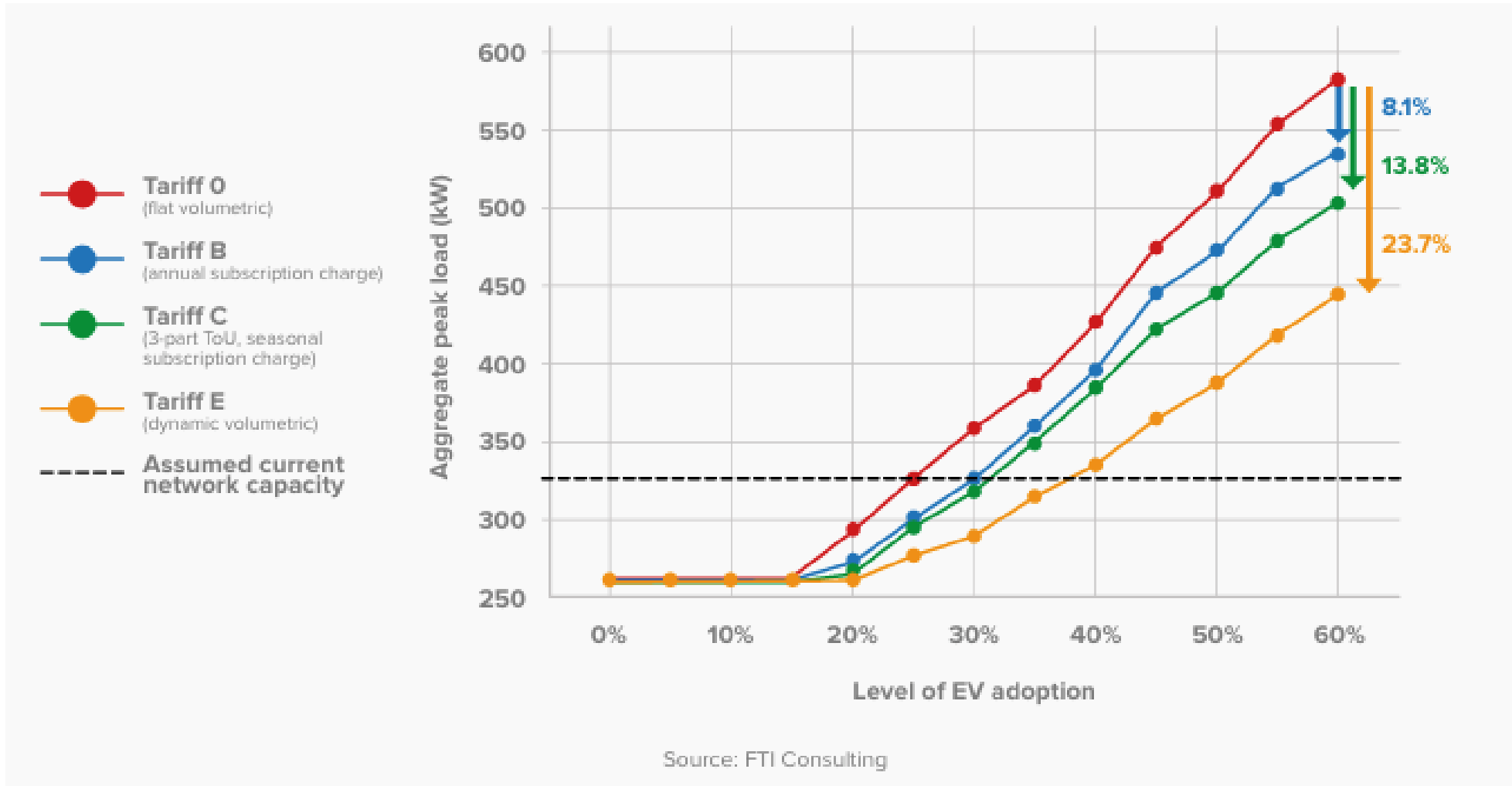
Anticipatory

investment is a no-regrets approach to optimise investment

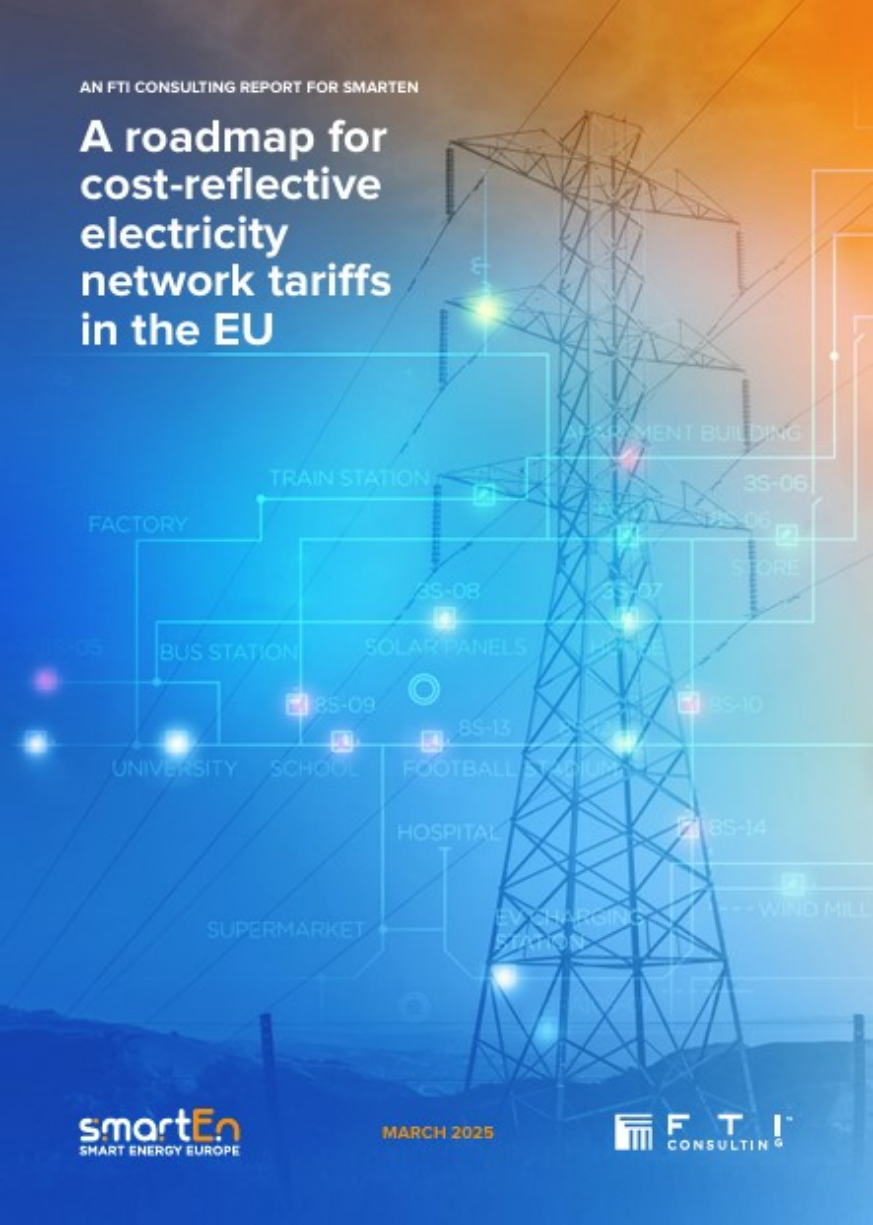
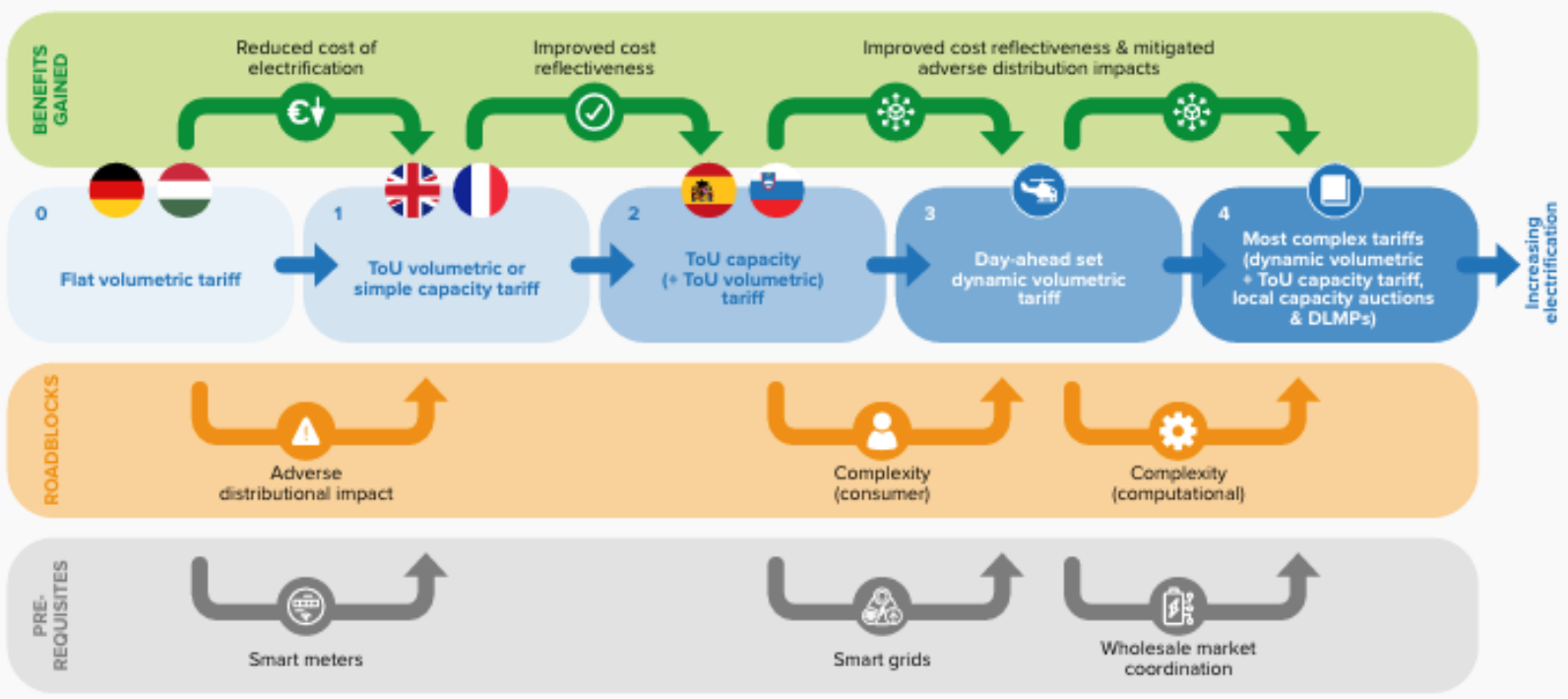
43%

Investment is for demand-driven reinforcement

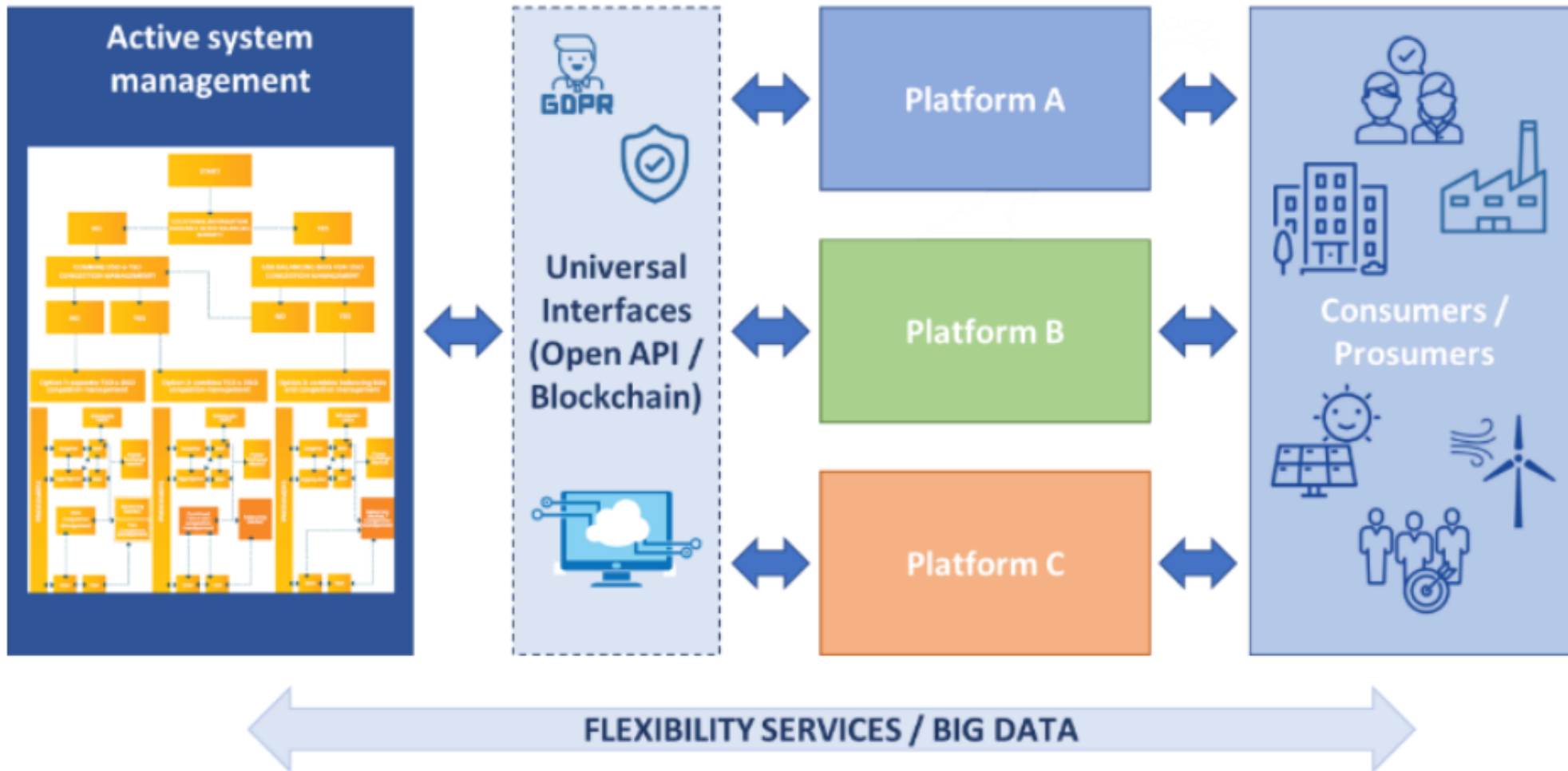
TARIFFS CAN BE USED TO MANAGE DEMAND GROWTH



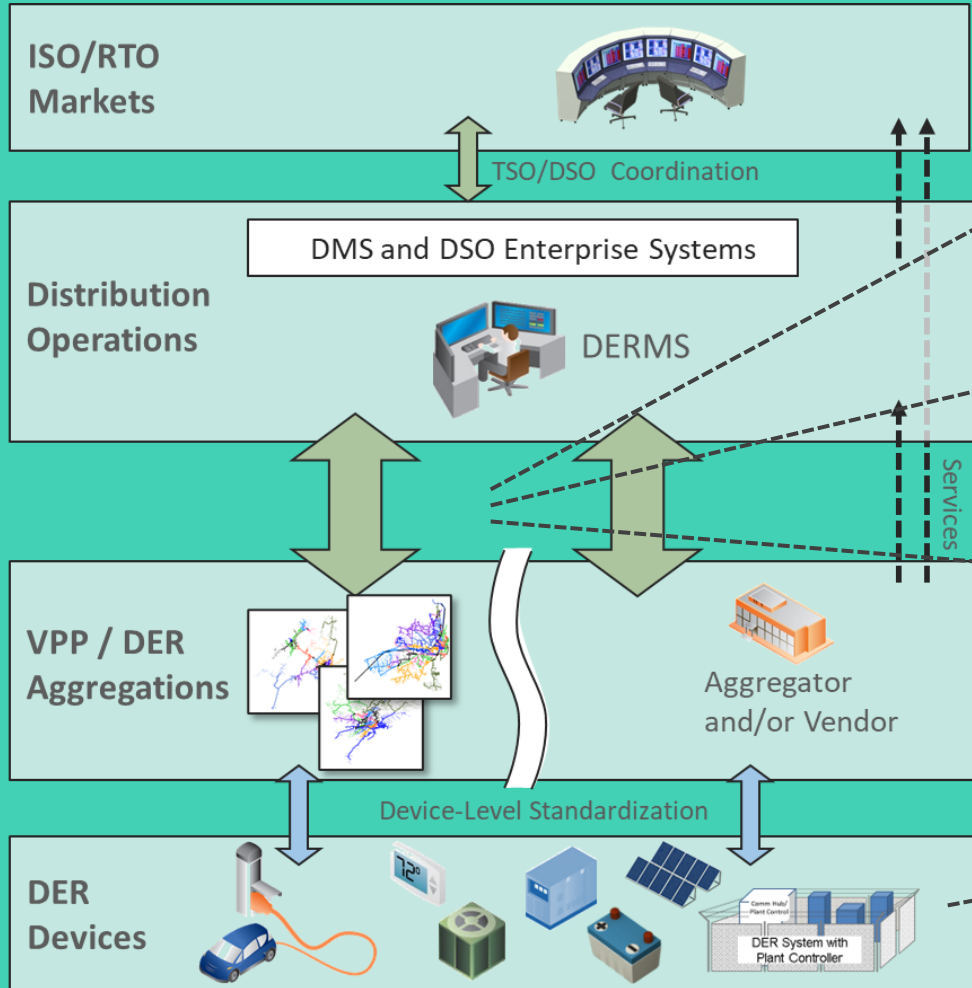
ROADMAP FOR TARIFF DESIGN



CREATING A PLATFORM (ONENET)



INTEROPERABILITY IS CRITICAL



Standard Business Frameworks

Agreement types, contract language. Eligibility requirements, penalties, measurement and verification.

Standard Protocols

Common language for communication. Plug-n-play interoperability, cyber security.

Standard Service Definitions

Power responses: Advance notice, ramp time, hold accuracy, recovery behavior.

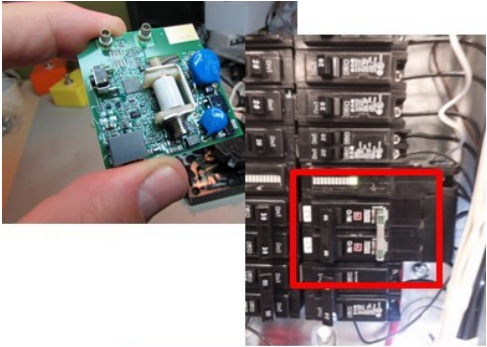
Device Standards

Define common functional behaviors and communication standards

flexit

mercury

INTELLIGENCE MOVING TO THE EDGE

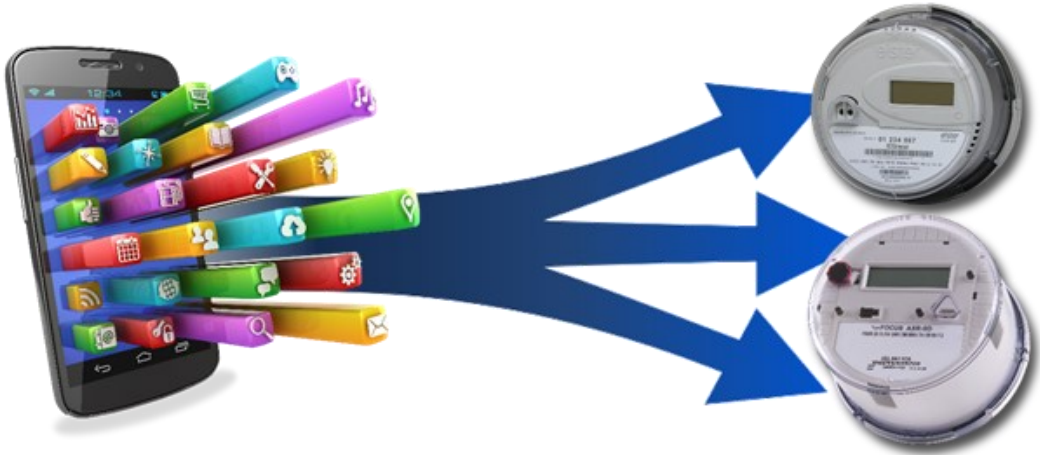


EMCB

EPRI | ELECTRIC POWER RESEARCH INSTITUTE

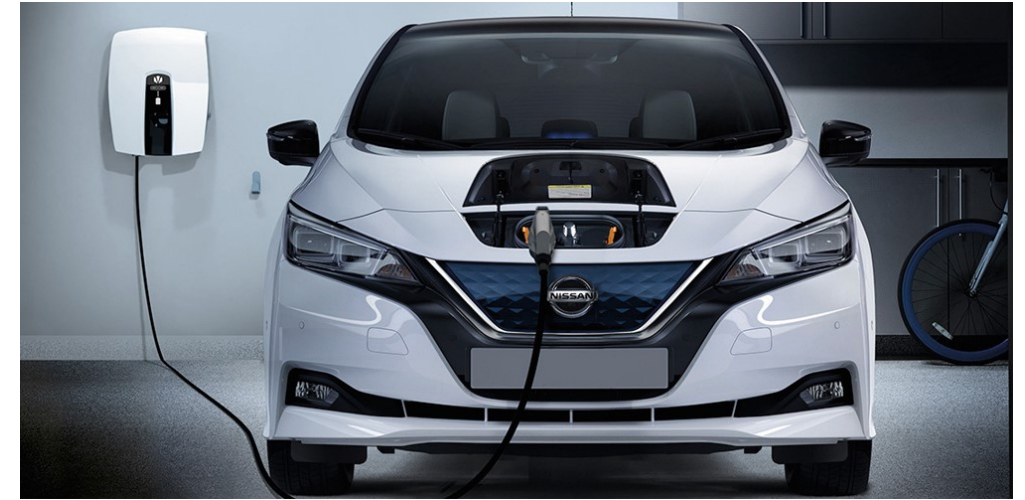
Transforming Smart Grid Devices into Open Application Platforms

3002002859



V2X CAN BE A GAME CHANGER

- Flexible electrification
- Infrastructure investment optimization
- Renewables integration
- **Resilience at the edge**



UTRECHT EXAMPLE

50

Renault 5 E-Tech cars were live at launch in June 2025.

500

Target fleet size announced for the Utrecht Utrecht Energized ecosystem.

35%

Share of Utrecht rooftops cited as already already fitted with solar panels.

10%

Potential flexibility contribution in the Utrecht Utrecht region at the 500-500-car scale.

Why it matters

Utrecht is Europe’s first large-scale city V2G car-sharing service and a fully operational urban ecosystem linking vehicles, public bidirectional AC charging, aggregation, and local grid balancing.



FOUR POWERING STRATEGIES:



Grid-Connected Inflexible

Pros

- High reliability
- Declining emissions
- Familiar

Cons

- Potential power delays
- More grid buildout



Grid-Connected Flexible

Pros

- Faster power
- Less grid buildout
- Support grid reliability

Cons

- Unfamiliarity
- New tariffs, business models, and coordination



Bridge-to-Grid (Off-Grid Temporarily)

Pros

- Fastest power
- Path to flexibility
- Grid connection benefits

Cons

- Costs of dual architecture
- Potential emissions



Isolated (Off-Grid Permanently)

Pros

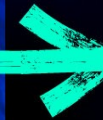
- Direct control
- Avoid grid connection costs
- Faster power

Cons

- Higher DC cost
- Reliability risks
- Emissions lock-in



Opportunities to accelerate power for all strategies



Powering Data Centers in the AI Era

Reconciling grid connection benefits with speed to power

Learn More:



speed2power.epri.com



ENABLING A SHARED ENERGY ECONOMY

Innovation Needs:

Regulatory

Investments
in shared
customer
resources
benefit all



Grid Operations & Planning

Integrated,
system-level
approach



Customer Engagement

Greater choice,
comfort,
convenience,
control



Affinity Partnership

From tech
companies to the
environmental
justice
community



Integrated Grid

Ubiquitous
communication
and DERMS
integration



MARK YOUR CALENDAR



IX WORLD FORUM ON ENERGY REGULATION

21-24 September, 2026

TBILISI, GEORGIA



PANEL DISCUSSION

- [Mr. Francisco Salazar \[erranet.org\]](#), Partner at Gadex, Enix and Trust, Mexico; Coordinator of the International Confederation of Regulators (ICER).
- [Prof. Konstantinos Tsimaras \[erranet.org\]](#), President, Regulatory Authority for Energy, Waste and Water (RAAEY), Greece
- [Eng. Abdulelah Alshaiee \[erranet.org\]](#), Vice Governor, Consumer Care, Saudi Electricity Regulatory Authority (SERA), Saudi Arabia
- [Mr. Sasho Saltirovski \[erranet.org\]](#), Managing Director, Elektrodistribucija DOOEL Skopje, EVNT Group, North Macedonia



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**THANK YOU
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