IEA: Flexibility & Energy Efficiency

24/10/2018 Basic Approach & Lessons Learned

Why combine Efficiency & Flexibility?
The confluence of technical, economic and regulatory factors

TODAY: ONE-WAY POWER SYSTEM

EMERGING: THE ENERGY CLOUD

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**Areas of Focus**
4 areas to bring together all aspects of the energy lifecycle

- **e-Industries**
  - Consulting and auditing service
  - Distributed generation on/off site
  - Energy efficiency
  - Demand response and demand side management

- **e-City**
  - Smart lighting
  - Fiber optic wholesale network
  - Distributed generation & energy services
  - Demand response and demand side management

- **e-Home**
  - Installation, maintenance and repair services
  - Financial services
  - Automated home management
  - Home 2 Grid

- **e-Mobility**
  - Charging infrastructure (public & private)
  - Maintenance and other services
  - OEM back-end integration
  - Vehicle Grid Integration

**The Energy Lifecycle**
Considering from the end user perspective

- Procurement
- Utility bill validation
- M&V
- Projects
- Curtailment
- Shift onto resilience
**Energy Efficiency & Flexibility**
Focus on Commercial Real Estate

Beacon Capital Partners: 45 sites.
(Boston, New York, Washington, D.C., San Francisco, Los Angeles, San Diego, Seattle, Chicago, and Denver)

- Flexibility: Demand response & peak demand reduction.
- M&V: Identification of EE projects.
  - Energy Coasting
  - Variable Speed drives

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**Energy Efficiency & Flexibility**
Ongoing project at Dublin Airport

- Providing frequency response and capacity
- Ongoing efficiency projects:
  - Lighting upgrades
  - BMS enhancements
- Supporting airport to explore operational savings potential through microgrid deployment
The Next Phase in Energy Flexibility and Efficiency

- Renewable incentives
- Efficiency incentives
- Favourable energy market rules around flexibility services
  - Ancillary
  - Capacity

Harmonisation of ideas, technologies & jurisdictions is key
Thank you!
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