



Societal Benefits of Microgrids:

Providing for business continuity, hardening critical infrastructure, and energy & environmental benefits

October 10, 2012

MassCEC Areas of Focus

Idea

Research

Development

Manufacturing

Project/Installation



**Clean Energy
Sector
Development**

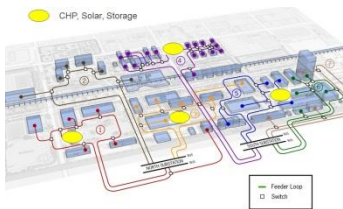
**Investments in Clean
Technology**

**Renewable
Energy
Generation**

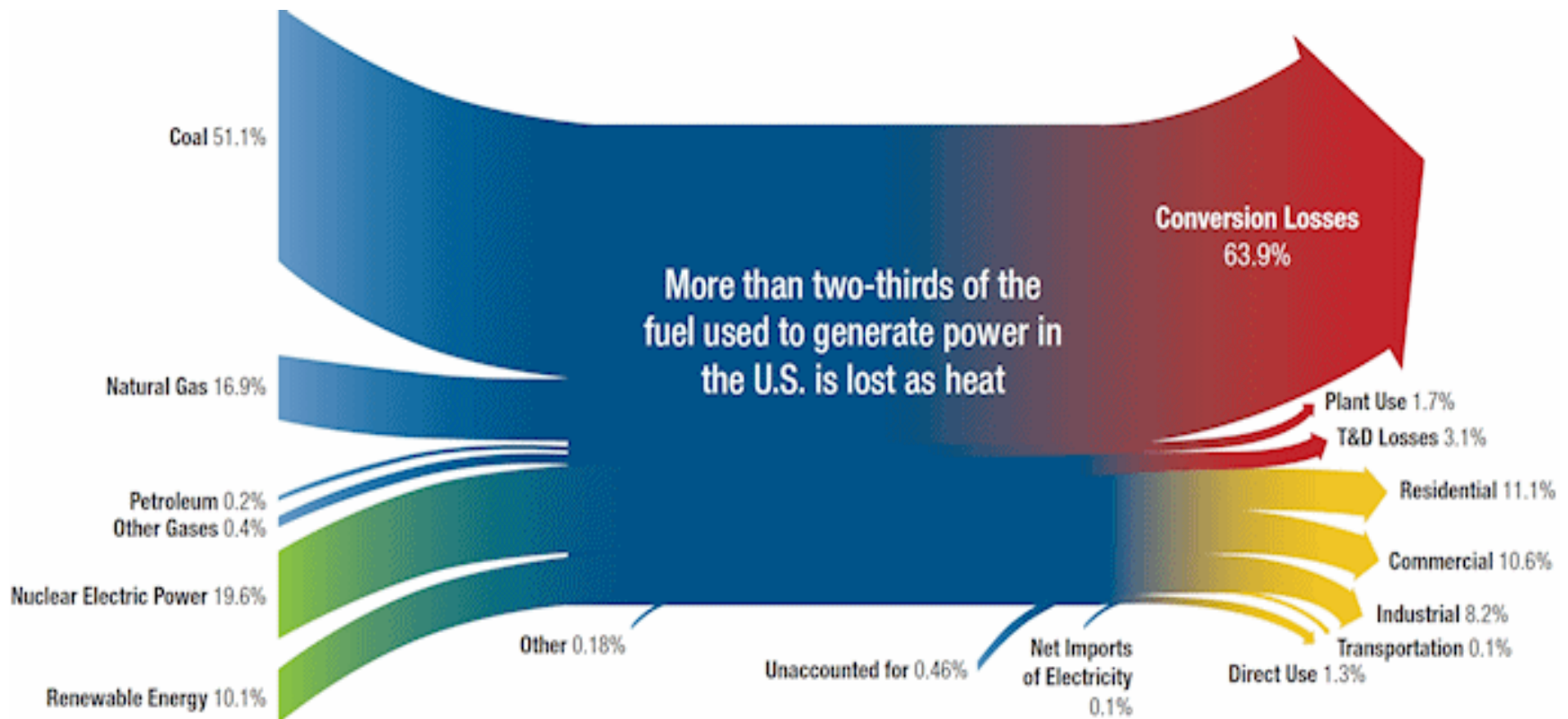
Workforce Development

Microgrid Stakeholder Benefits

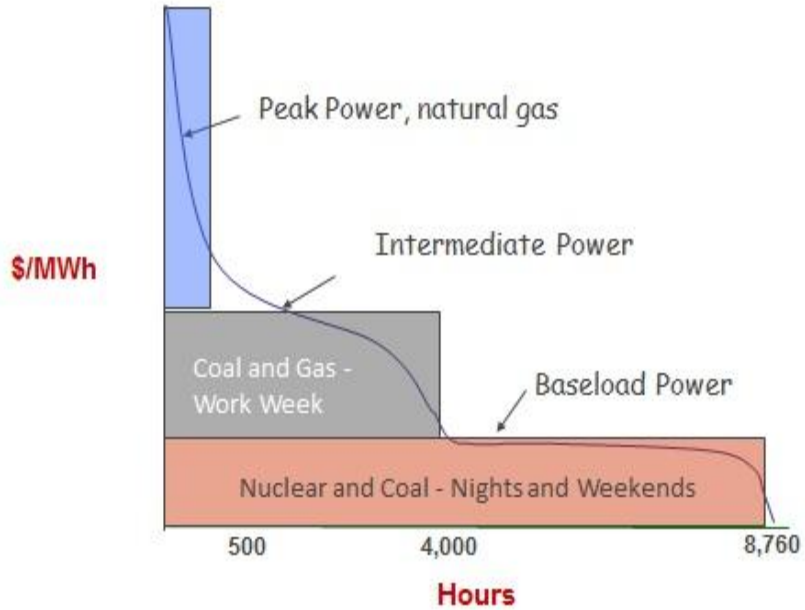
- Reliability
- GHG reductions
- Renewable energy integration
- Energy cost reduction
- Infrastructure investment deferral
- Resiliency/islanding
- Energy consumption reduction
- Power quality



Why do we care?



Why do we care?



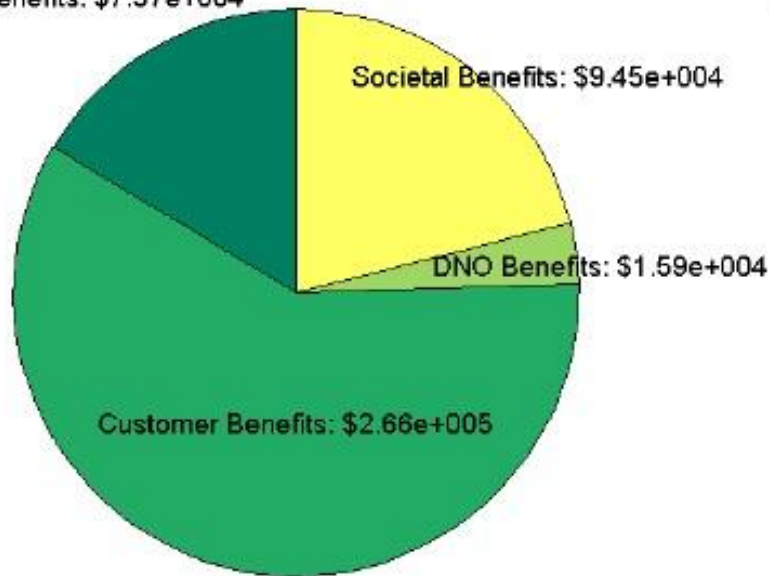
Why do we care?



Who Benefits? Who Pays?

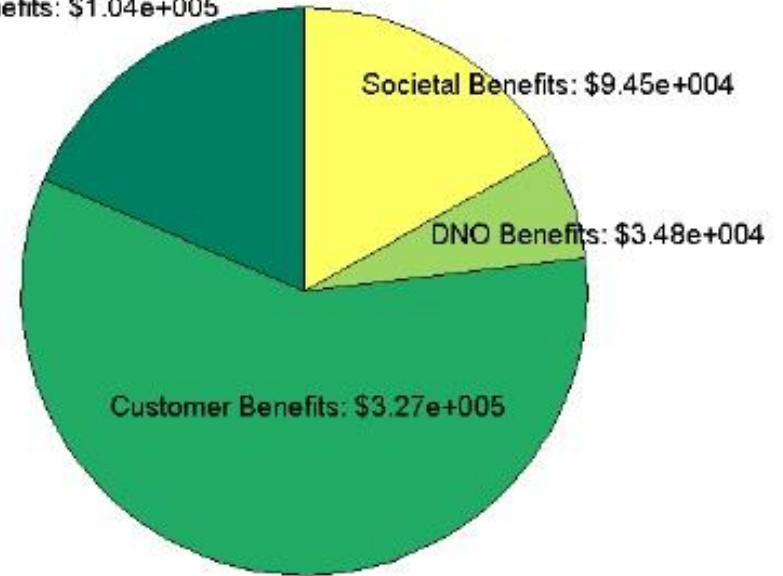
Annual Net Benefits from DG for All Stakeholders
Total Net Benefits: $\$4.5e+005$

IPP Benefits: $\$7.37e+004$

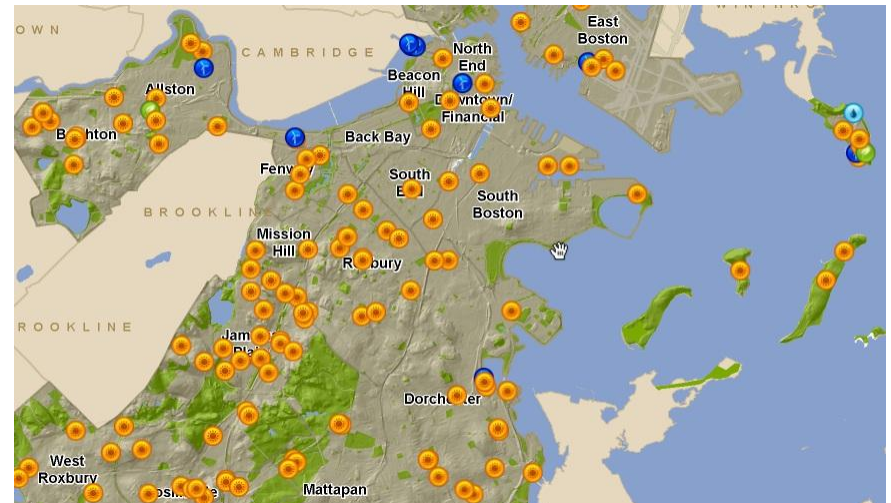
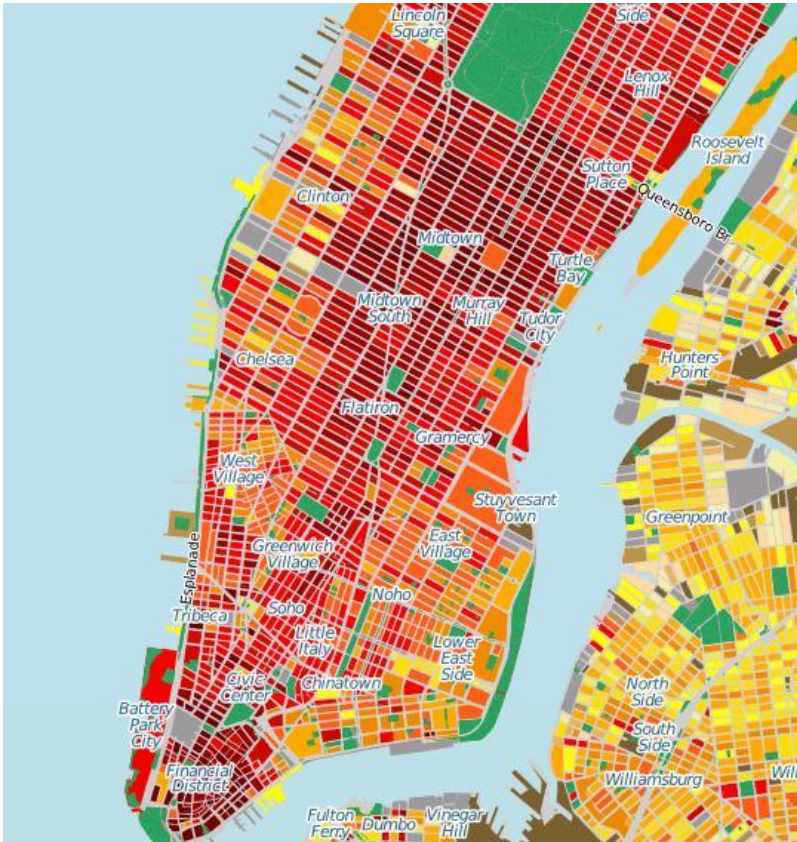


Annual Net Benefits from Microgrid for All Stakeholders
Total Net Benefits: $\$5.6e+005$

IPP Benefits: $\$1.04e+005$



What role can gov't play?



Next Steps

- Learn from pilots
- Governing structure (public private, EID) may be tougher challenge than technology
- One size does not fit all
- T&D investment for all possible futures – who will pay?
- No regrets strategies: study potential, district energy readiness standards, ID regulatory barriers now

Thank you!

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