

## ***DOER Update***

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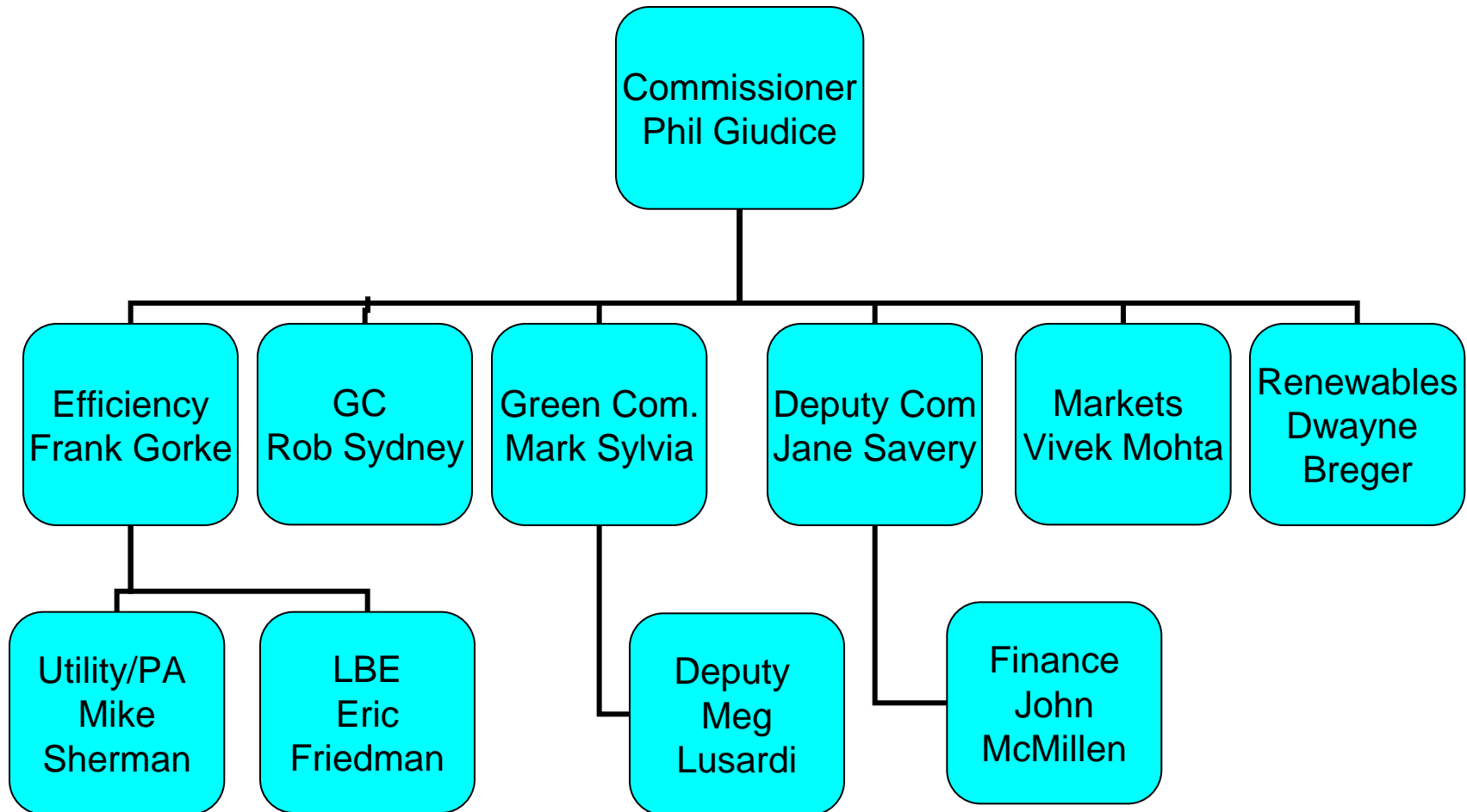
January 8, 2010

# DOER Mission

*Creating a greener energy future --  
economically and environmentally:*

- all available cost-effective energy efficiencies
- greener energy resources
- reliable supplies and improved relative cost
- clean tech companies and clean energy jobs

# DOER Organization



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# Top 10 DOER 2009 Priorities

1. Implement 2008 legislation
  - A. Revamp all energy efficiency programs with utilities
    - expand utility operated EE programs, from ~\$150 million/year through 2008 to ~\$650 million/year over 2010 – 12
    - Unanimous EEAC plan approval, now under final review by DPU
  - B. Advance building codes
    - establish stretch codes
    - train inspectors and assure compliance with codes
  - C. Establish recognized leadership in helping communities
  - D. Build fact basis for municipalization consideration
  - E. Develop state renewable potential
  - F. Revamp MRET: streamline, deliver results
  - G. Implement net-metering of distributed renewable generation
  - H. Launch solicitation process for long-term contracts
  - I. Revamp RPS requirements
    - new technologies
    - new goals
    - automate processes
    - resolve C&D
    - establish carve out
  - J. Establish and implement regulations for biofuels



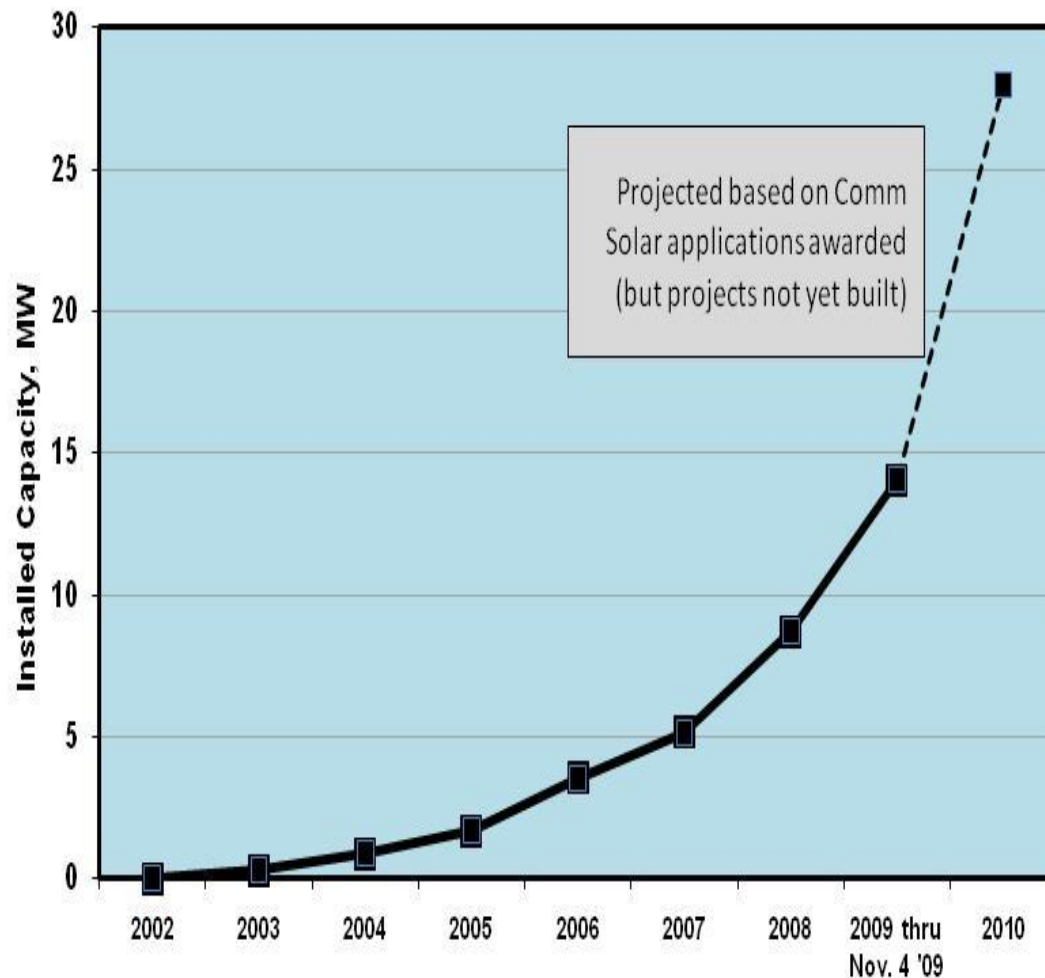
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# Top 10 DOER 2009 Priorities (con't)

2. Demonstrate transportation alternatives
3. Exceed all LBE goals
  - Issued state “Mass. LEED Plus” beating the state energy code by 20%
  - Constructed three LEED certified state buildings, energy perf 30% better than code
  - Broke ground on the first of two zero net energy state buildings
  - Helped accelerate pipeline of \$200+ million of energy projects (efficiency, solar)
  - Demand Response 40 state facilities total of 29.75 MW and over \$1M annual revenue;
4. Maximize deployment of all viable federal stimulus money
  - A. Identify and maximize the deployment of federal energy stimulus to any and all viable Commonwealth entities – public and private
  - B. Monitor and report on all energy related stimulus activity
5. Drive decoupling rate cases to achieve public policy goals
6. Continue to make RGGI work
7. Maximize GHG benefits of executive initiatives
  - A. Establish and accelerate momentum for ZNEB adoption
  - B. Contribute breakthrough GHG suggestions to MEPA process
  - C. Make Big Box Retail greenest in US
8. Influence national and global policy in key areas
9. Communicate to all interested parties clearly, candidly, and frequently
10. Continue to build exceedingly high performance team

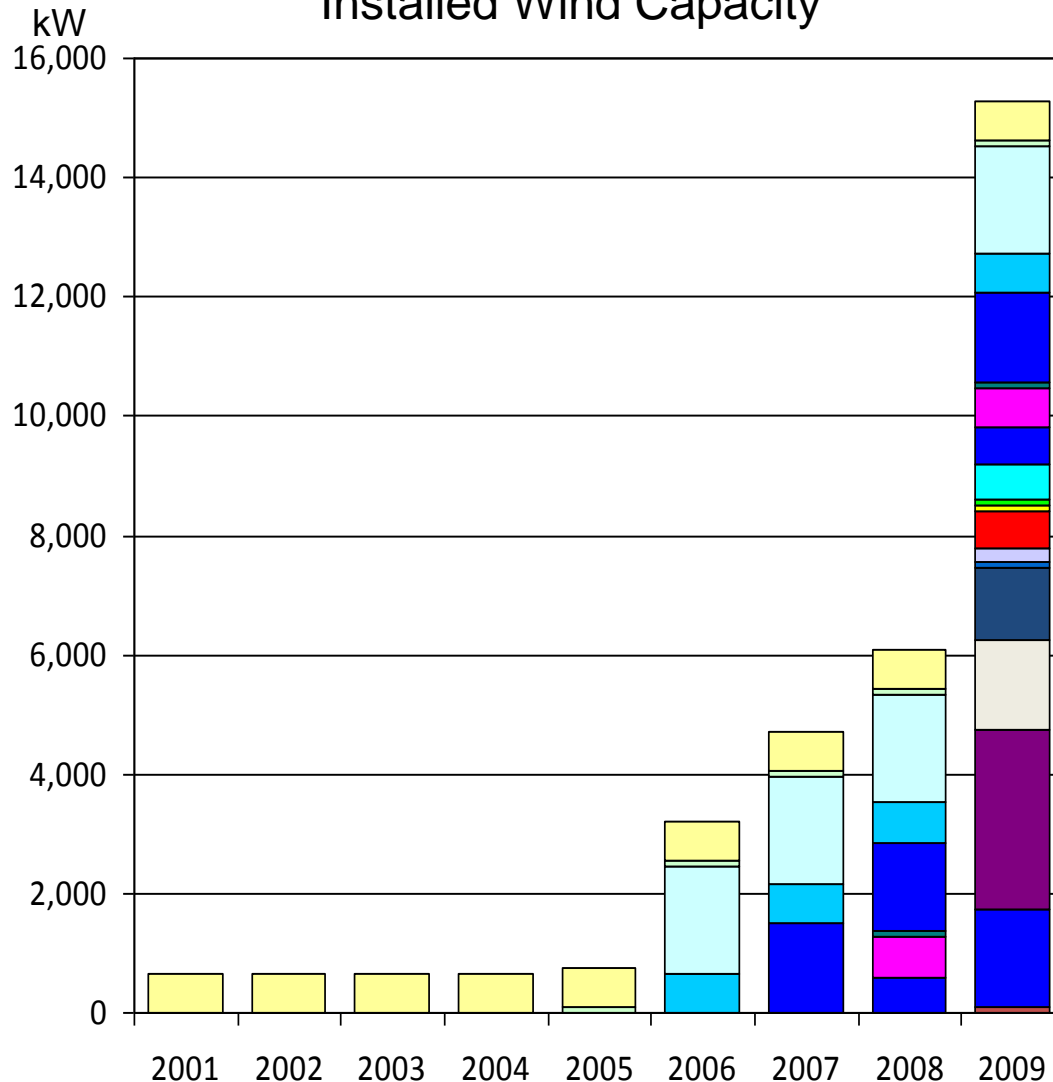
# Renewables: Solar

- Received 29.6 MW in applications
- Successfully met 27 MW goal – one year early
- Over 1,200 projects awarded
- 781 projects installed
- Solar employers have grown from 50 before Comm Solar to over 200 in 2009.



# Renewables: Wind

Installed Wind Capacity



- 21 turbines Installed
- >30 MW expected to be installed by end of 2010
  - Tenfold increase during Gov. Patrick's administration
- Technical Resource Potential
  - Onshore 1,500 MW
  - Offshore 6,000 MW



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# Renewables: Biomass

- Perhaps the largest indigenous renewable energy resource available in MA (on land).
- Non-intermittent generation and opportunity for CHP and thermal-only projects.
- BUT, finite in its *sustainable* resource, and subject to public concern and issues related to forest management, air emissions, and carbon accounting.
- DOER suspended SQA and commissioned a study (due May 2010) to address issues and assist DOER/EEA in developing sound biomass policy.



# Renewables: Advanced Biofuels

## Provisions of the Clean Energy Biofuels Act

- All diesel transportation fuel and heating fuel sold in the State must include a minimum percentage of “advanced” biofuel – starting at 2 percent in 2010 and ramping up to 5 percent by 2013.
- Advanced biofuels only will qualified – defined as those biofuels that can demonstrate greenhouse gas reductions of at least 50% relative to petroleum, inclusive of indirect impacts.
- Additionally, Act provides for an exemption to the state fuel tax for any cellulosic ethanol content in gasoline.

## DOER Implementation Plan

- Program will begin in July 2010. First Year will be an Early Action Year where mandate is not obligatory, but credit for biofuel use can be applied to the following year.
- DOER anticipates adopting the federal EPA RFS-2 protocol for determining GHG reductions of a biofuel for qualification purposes.
- DOER is currently establishing compliance procedures, including tracking and enforcement methods.



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# Energy Markets

## 2010 Plans

1. Continue implementing over \$70 million stimulus programs to create jobs
  - A. State Energy Program: \$54.9 million
    - Solar Stimulus –
      - o 4.2 MW of solar PV at water and wastewater facilities EPA SRF program
      - o over 40 additional public projects totaling 4 MW to advance
      - o Funded an additional round of Commonwealth Solar
    - High Performance Buildings -- evaluating proposals for \$15 million in grants
    - Energy Efficiency at State Facilities
      - o Support for expanded efficiency program
      - o RFP issued for enterprise energy management system for 65 million square feet of buildings
  - B. Energy Efficiency and Conservation Block Grant: \$14 million
  - C. Energy Star Appliance Rebate Program- \$6.2 million; March launch
2. Conduct comprehensive risk assessment of state energy infrastructure
3. Lead comprehensive climate strategy analytics
4. Develop and implement energy management and consolidation strategy
5. Assist solicitation for long-term contracts for renewables



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# Green Communities

## 2010 Plans

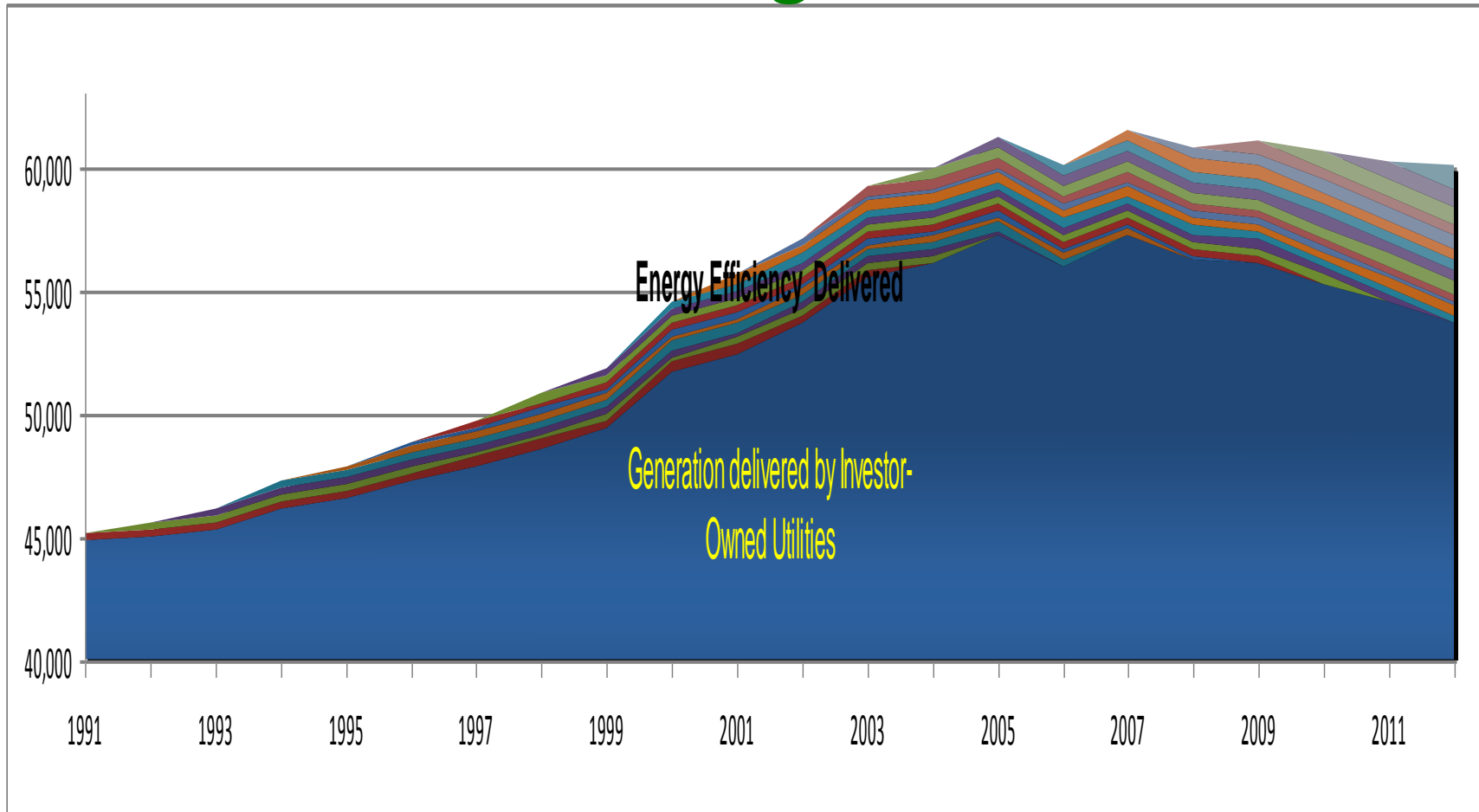
1. Complete Planning Assistance for 106 cities and towns to assist them in becoming Green Communities. Budget \$1,200,000.
2. Follow through on ~100 municipal energy audits / benchmarks and 17 municipals implementation programs.
3. Award EECBG grants: up to \$150,000 for at least 80 communities under 35,000.
4. Initiate GC Grant Program
5. Launch Energy Information Reporting System
6. Improve website
7. Develop efficiency /renewable energy procurement guidance for cities and towns
8. Revise Performance Contract Regulations
9. Complete statewide performance contract



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# Efficiency: Plans Built on Experience; Provides Increasing Share of Load



# Energy Efficiency

## 2010 Plans

1. Improve the customer experience of efficiency programs
2. Establish statewide education, outreach, and marketing to increase awareness, foster behavioral changes, and increase participation. Call to action is critical.
3. Deliver on ARRA funding: jobs and cool energy projects
4. Identify outside funding to help finance efficiency investments
5. Ensure effective implementation of new utility program designs, especially
  - A. Integration of gas and electric programs
  - B. CHP programs
  - C. New MassSAVE residential program
  - D. Multifamily program
6. Support code training and code enforcement



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# Combined Heat and Power (CHP)

- Alternative Energy Portfolio Standard (APS)
  - DOER qualifies CHP (cogeneration) projects for APS program, similar to RPS, enabling generation of Alternative Energy Certificates (AEC).
  - Load Serving Entities must meet compliance obligation for APS, developing a market value for AEC (up to the \$20/MWh Alternative Compliance Payment Rate)
  - AECs generated based on fuel savings of CHP relative to standalone thermal unit and grid power.
  - DOER has qualified first 4 CHP units for program.
- Energy Efficiency funds are available to support CHP installations. Contact your utility or energy service provider.

# Leading by Example

## 2010 Plans

1. Implement stimulus projects
  - A. Install almost 4 MW of solar in state facilities; increasing from current 1 MW
  - B. Undertake massive energy efficiency at dozens of state facilities targeting 20 million square feet
  - C. Implement Enterprise Energy Management System
2. Install 5 MW of wind; increasing from current 2 MW
3. Expand state demand response to another 50 facilities with 29 MW potential additional enrollment; increasing from current 40 facilities and 30 MW enrolled
4. Issue new green buildings guidance



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# Open to Others' Ideas

- More results?
- Faster?
- Easier?
- Lower cost?



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