Energy Collaborative Analysis Initiative

Portfolio Analysis: Program Allocation Decisions in Practice

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Portfolio Allocation

- Some key assumptions
  - Capital scarcity (limited funding)
  - Multiple projects to be funded and several different (competing or complementary) ways to achieve goals
    - Stated and perhaps conflicting goals and or objectives (either at the portfolio level or for specific discrete projects)
  - Often uncertain decision criteria and perhaps return/risk preferences (tradeoffs)
    - Relative importance of objectives can change
  - Often uncertain time dimension

Portfolio Allocation Methods

- Allocation decisions
  - Where funding is discretionary
    - Having a diverse portfolio (program types and support along the product/service value chain)
      - Optimize programs toward desired outcomes/goals
      - Maximize expected return
      - Minimize expected risk
  - Where funding is non-discretionary (low-income programs)
    - Little if any flexibility exists such that "one does what one is directed to do" as best one is able
      - Minimize costs/leverage resources
      - Ensure fairness and access to services

State Perspective: New York

- NYSERDA's program portfolio
  - Funding is mostly discretionary within broad categories
    - Includes R&D, demonstration, deployment, services
      - Market development (transformation)
      - Resource acquisition
      - Market & general awareness

Broad public policy goals and objectives drive NYSERDA's program offerings and strategies, consistent with NYSERDA's mission and corporate-level goals

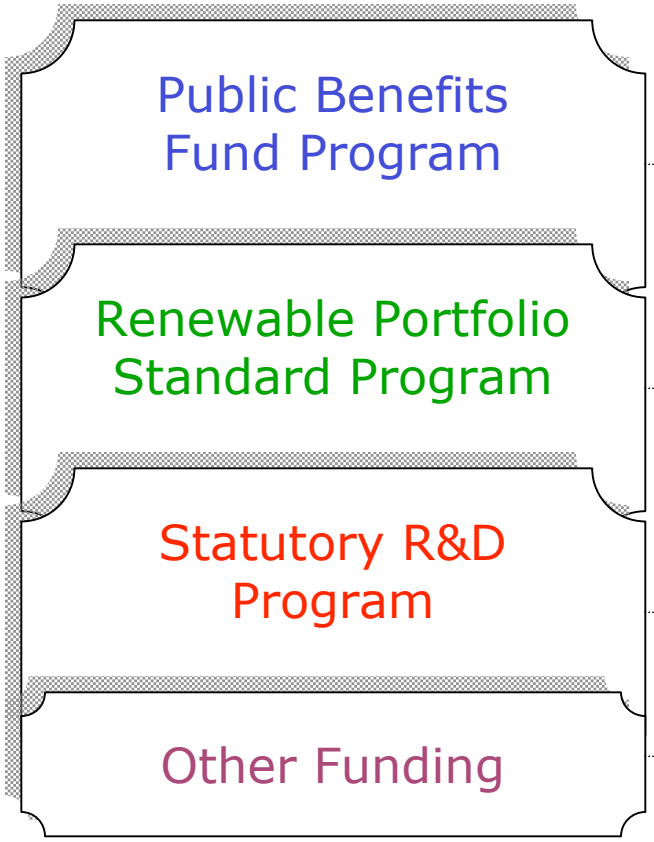
Some Key Policy Drivers

- Create a sustainable competitive retail market for energy services (commodity and efficiency/load management)
- Increase energy supply diversity, including renewable energy, demonstration and commercialization of clean distributed generation technologies
- Reduce peak electricity demand
- Reduce air pollutant emissions and New York's contribution to global climate change through energy efficiency and R&D

Policy Drivers *… Continued*

- Procure energy supplies and or efficiency resources at the lowest cost possible
- Continue to "stock the shelves" innovating products and technology through R&D
- Help create an "energy efficiency ethic"
- Improve energy affordability
- Attract and retain jobs in New York – in energy services and clean energy technology

NYSERDA Major Programs



~ $175 million/year

- Energy Efficiency
- Low-Income
- RD&D (efficiency)

~ $100 million/year

- Wholesale
- Customer-Sited

~ $15 million/year

- Product development
- Transportation/Power systems
- Process improvements
- Etc.

~ $5 to 50 million/year

- Wholesale
- Customer-Sited
- State Energy Program

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Strategic Program Planning

- NYSERDA's 3-year Strategic Program Plan
  - Annual process, including participation of NYSERDA Board, management, program staffs, and stakeholders
  - Integrates various individual program plans (PBF, RPS, etc.), including statutory and administrative programs
  - Integrates energy program evaluation (results and progress toward goals) into program planning

Some Key Decision Criteria

- Broad level
  - Public policy goals
  - Public needs
  - Stakeholder needs
  - Management and program staffs priorities
  - Partnering interests
  - Funding opportunities
- Operational level
  - Expected return
  - Risk tolerance
  - Available funding
  - Staff resources
  - Timeliness
  - Certainty of funding (duration)
  - Leveraging
  - Market assessment

Take Aways

- Portfolio allocation decisions are:
  - Part art and part science
  - Founded in theory but modified by practice
  - Public policy directed (when using public funds) and outcome oriented – taking into account equal access to services and distribution of benefits
- No single criterion captures the true value of a program allocation decision
  - Multiple criteria, multiple methods, and multiple benefits
- Integrated organizational strategic plans and individual program plans are critical