

Reap What You Sow: The Role of a Central Design Authority Framework to Achieve More Aggressive Energy Efficiency Goals

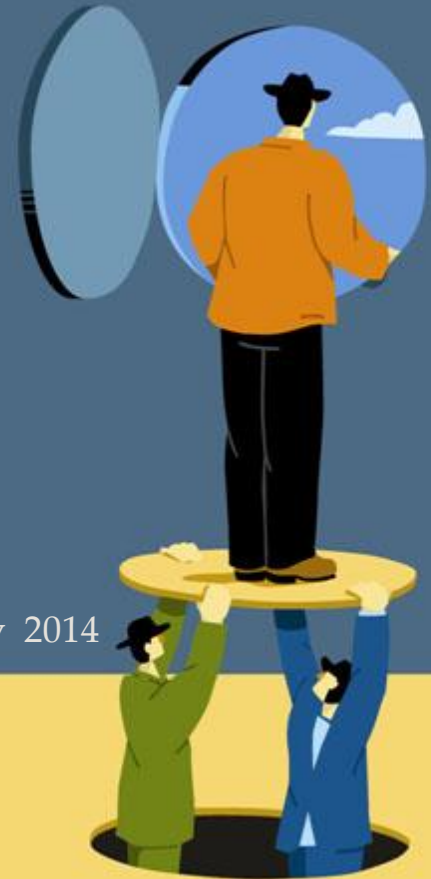
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- » Major EE policy activity in the U.S. and Europe
- » What is required for effective DSM portfolio design?
- » Lost opportunities for design improvements
- » Continuous DSM design planning and coordination with EM&V
- » The role of a Central Design Authority for DSM
- » Setting new expectations –paying for DSM design
- » Discussion / Experiences / Opinions

- » United States
 - » Energy Efficiency Resource Standards (EERS)
 - » 60% of total U.S. electric sales occur in states with EERS
 - » Utilities are investing ~2%-10% of revenue annually for DSM
 - » Section 111(d) Environmental Protection Agency
 - » Reduce powerplant carbon emissions 30% below 2005 levels.

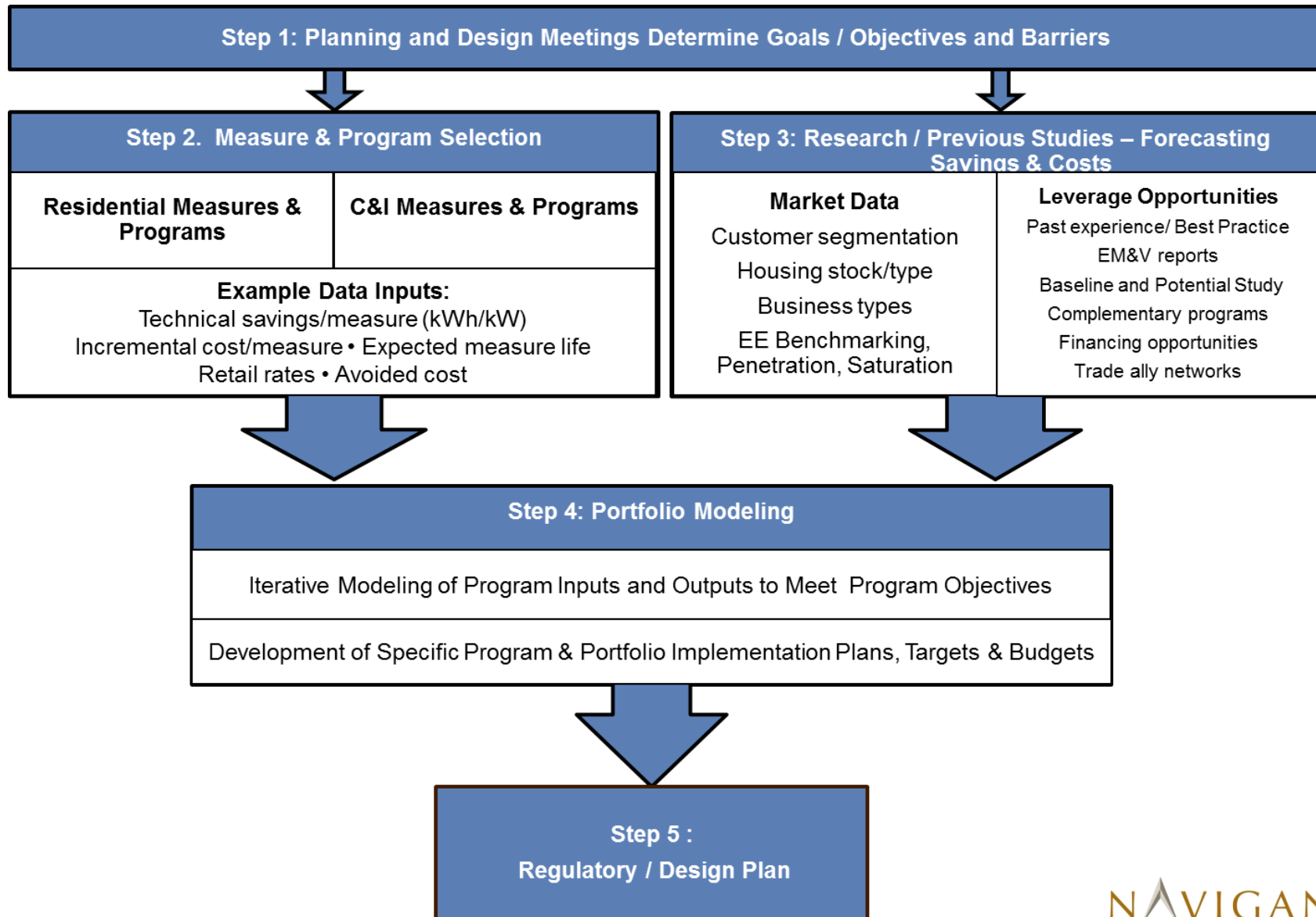
» Europe

- » *Europe 2020 Strategy- Directive on Energy Efficiency (2012)*
- » 20% savings by 2020 (discussion of 30% by 2030)
- » National Energy Efficiency Action Plans

European Commission Directives 2012/27/EU on Energy Efficiency

- » National Energy Efficiency Targets
- » Public Sector Building Retrofits
- » Public Sector EE Procurement
- » EE Obligation Scheme
- » Energy Audits
- » Electricity Metering
- » High Efficiency Co-Generation
- » Transmission & Distribution System Efficiency
- » Accreditation & Information Dissemination
- » Financing

DSM Design for Energy Efficiency Action Plans



Everyone wants perfection.....who is willing to plan and pay?

The All To Common (Unfortunate) Approach

- » Rush to assemble the DSM plan (~ 2 to 6 months), with limited budget leading to:
- » Failure to properly use supporting documents (i.e. potential or baseline studies are not ready)
- » Failure to customize and/or apply EM&V lessons learned
- » Failure to conduct targeted research to fill knowledge gaps
- » Failure to use focus groups to test incentive designs or conceptual delivery approaches



The Result



Invest More in DSM Design...Just Like EM&V...and Coordinate

- » Solution: Elevate the profile and role of DSM design as a continuous and integrated process by formalizing the creation of a Central Design Authority

What is a Central Design Authority (CDA) ?

Traditional Central Design Authority

- » “Command and Control” team overseeing large information technology development projects.

Enhanced Central Design Authority _For DSM

- » Cross-cutting team responsible for:
 - » Facilitating the key actions, and sequence of steps, related to the overall portfolio design and operations.
 - » Design, development, maintenance, and execution of major portfolio management systems and deliverables

Role of an Enhanced Central Design Authority

- » Design should be integrated and continuous with operations
- » Fundamental design tools and supporting data (e.g. benefit-cost tools, measure savings inputs / technical reference manual, baseline studies) are prepared well in advance
- » Design gaps / barriers / lack of knowledge are flagged early
- » Leverage implementers and EM&V contractors to plug gaps through their discretionary research, well in advance of the next regulatory plan filing
- » Use “design” as additional glue to link all parties, for enhanced communication, coordination, and success

Continuous Program Improvement



At Least 1% for Energy Efficiency Design

DSM Spending – Typical IOU with 3rd Party Delivery

- » Incentives: ~ 65%
- » 3rd Party Implementation: ~ 20%
- » Utility Admin: ~ 10%
- » 3rd Party EM&V: ~ 4%
- » **DSM Design: ~ 1% (?)**

Design Budget

- » Allocate sufficient internal staff resources, and / or budgets for third party support, to achieve the desired design / portfolio implementation goals

Discussion



- » Comments & Questions
- » Related examples: success / failure stories

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