

# **Connecticut Energy Issues (Phase I: Overview of Other States)**

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Prepared for: Connecticut Energy Advisory  
Board (CEAB)

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## Phase I Research Report

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- **Today:** Review of agency organization in key states with highlights of preliminary findings
- **June:** Phase I Research Report presented to CEAB

## Overview of Review of Other State Energy Processes

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- Screened over 20 states and Canadian provinces
- Focused on states with similarities to Connecticut
  - e.g., Restructured, within an ISO, and/or has customer choice
  - States with different approaches than CT
  - Similar environmental drivers
- Examined parallel functions such as planning and implementation to Connecticut in a few key states
  - New York and California
- Reviewed other states/provinces for specific processes and issues
  - New Jersey, Vermont, Ontario, Maryland, Massachusetts, Maine, ...

**New York**

## New York

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### ■ State Profile

- Retail Sales in 2006 ~ 142,000 GWh
- Restructured with full Customer Choice
- ISO (NYISO), but single state
  - Certain load zones face congestion issues
- Active Renewable Portfolio Standard (RPS) and Energy Efficiency/DSM programs
- Regional Greenhouse Gas Initiative (RGGI) participant and significant environmental initiatives
- Two state power authorities (LIPA and NYPA)

## New York Entities/Agencies with Energy-Related Activities

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### ■ Primary Entities/Agencies

- Public Service Commission (PSC)
  - **Department of Public Service (DPS) (*PSC Staff*)**
- State Energy Planning Board (*New as of April 2008*)
- New York State Energy Research and Development Authority (NYSERDA)
- New York State Consumer Protection Board (CPB)
- Department of Environmental Conservation (DEC)
- Power Authority of New York (NYPA)
- Long Island Power Authority (LIPA)

## **New York – Highlights of Planning**

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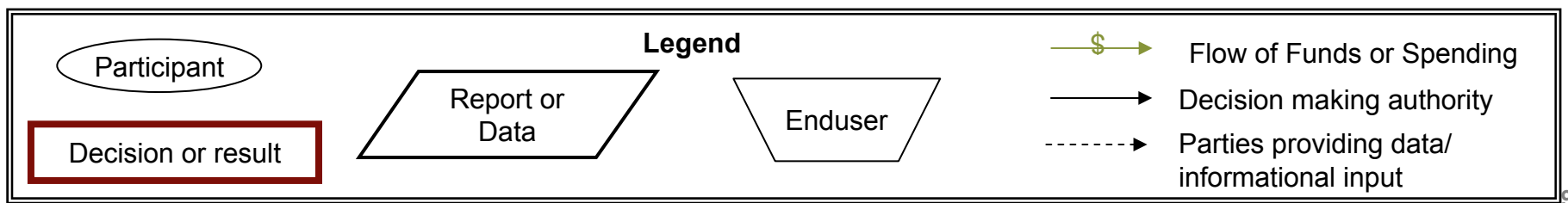
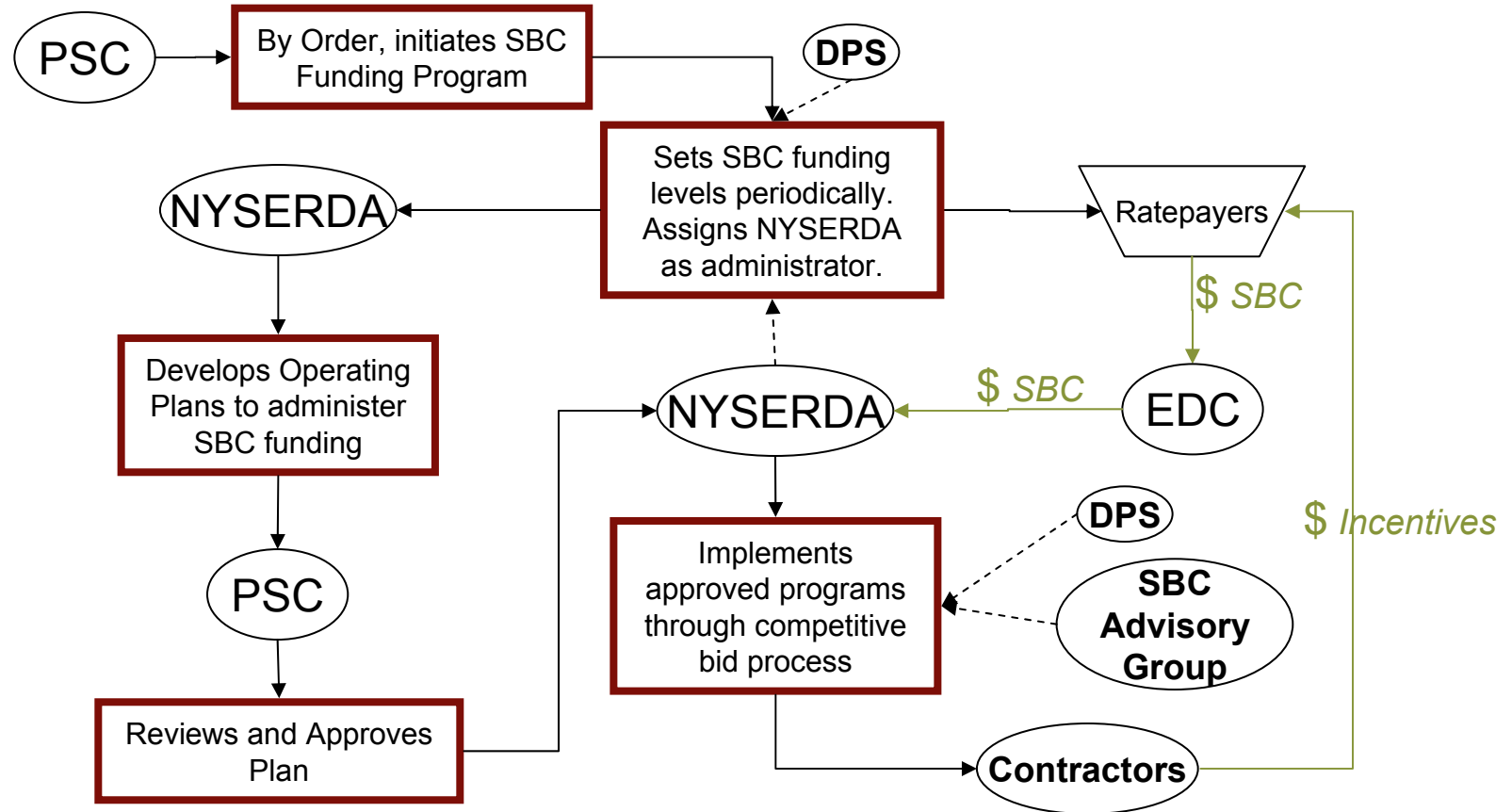
- **State Energy Plan is comprehensive and provides policy guidance**
  - **In April 2008, Governor issued an Executive Order to establish a State Energy Planning Board to develop a comprehensive plan.**
  - **Last Energy Plan, developed in 2002 by a statutory Energy Planning Board, provides ongoing policy guidance to state agencies.**
- **PSC has broad statutory authority**
  - **Broad statutory authority to initiate dockets and implement programs addressing various energy issues, including: Restructuring; Renewable Portfolio Standard (RPS); System Benefits Charges (SBC); and Demand Response Programs; Energy Efficiency Portfolio Standard (EPS); and Long-Term Procurement/Planning/Hedging.**
  - **Authority to collect revenue from ratepayers to fund various energy programs.**
  - **Planning and analysis of policy options supported by large Department of Public Service (DPS) staff.**

## **New York – Highlights of Energy Efficiency**

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- **PSC established a System Benefits Charge (SBC) program to fund DSM programs statewide.**
  - Since the inception of an SBC, PSC has reviewed and set SBC funding levels for DSM programs based on multi-year plans (every 3-5 years)
  - Funds are collected by utilities through non-bypassable rates, but utilities do not administer DSM programs (with a few exceptions)
  - PSC assigned NYSERDA to administer the statewide DSM programs with the SBC funding

## Process Flow Example: Planning and Implementing Energy Efficiency (System Benefits Fund) – New York

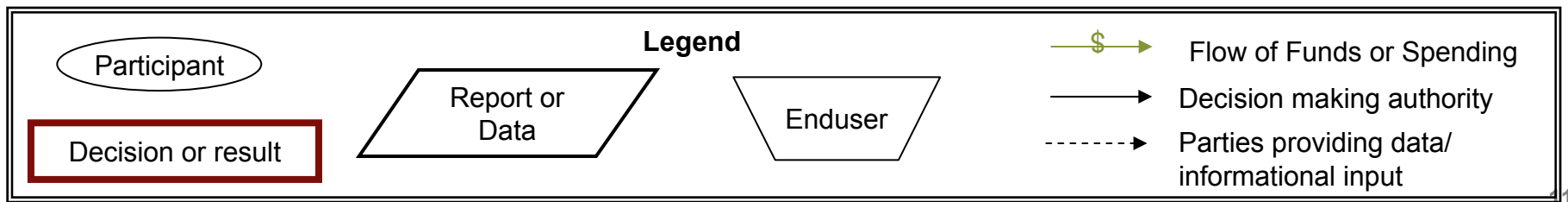
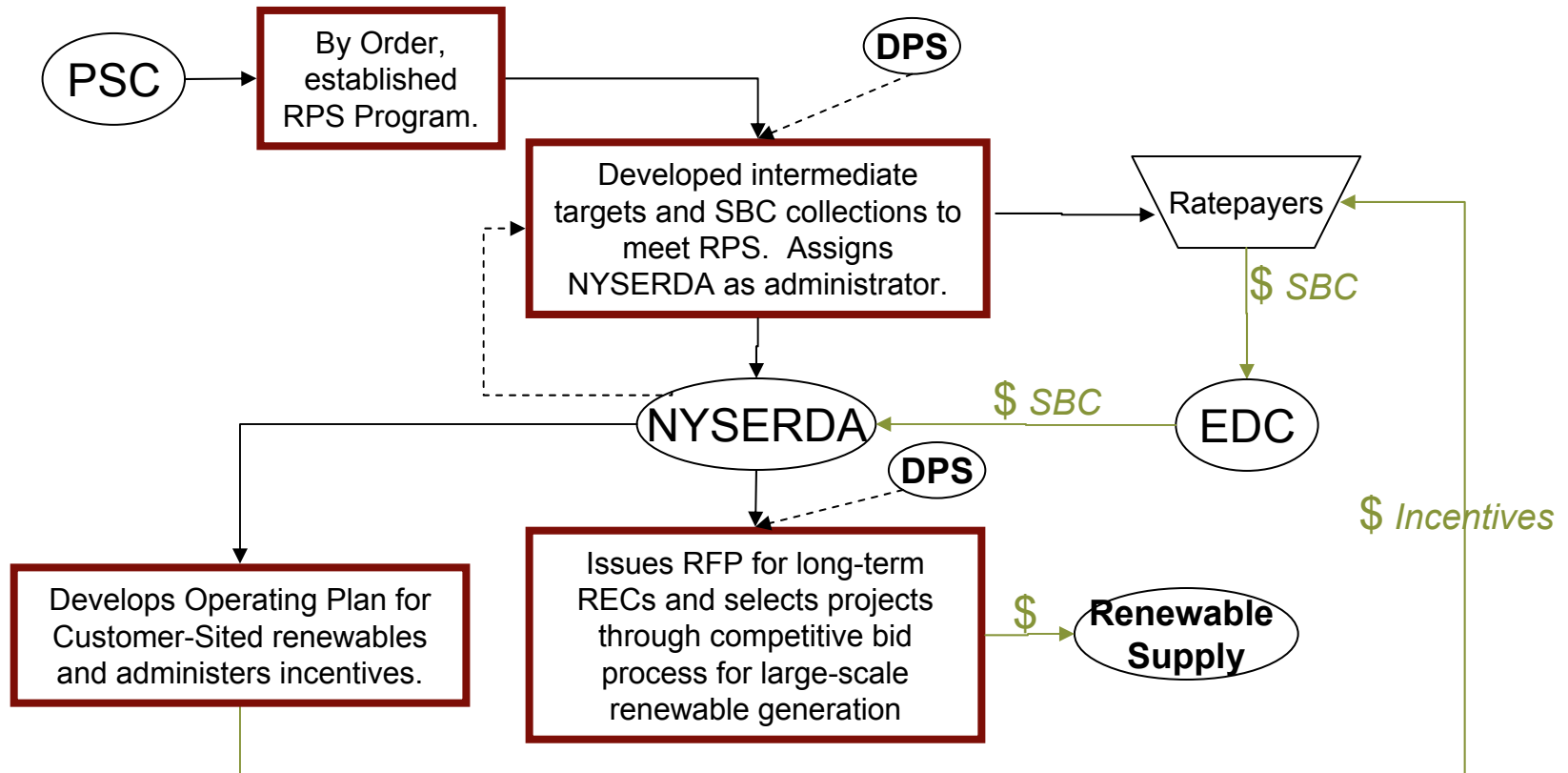


## **New York – Highlights of Renewable Energy**

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- **PSC also established a Renewable Portfolio Standard (RPS) for the state (includes both large-scale and customer-sited renewable generation)**
  - **PSC increased SBC funding levels to also fund procurement to meet RPS goal.**
  - **PSC assigned NYSERDA to be the central procurement agent, instead of utilities and/or electric suppliers, and procure sufficient renewable energy certificates (RECs) to meet the RPS goal.**
  - **Using a competitive bid process, NYSERDA procures RECs through long-term contracts with Main Tier (large-scale) renewable projects**
  - **As part of the RPS, NYSERDA also provides financial incentives to support new Customer-Sited (small) renewable generation**
  - **PSC review of RPS funding, targets, and administration is underway for procurement years 2010-2013(2015).**

## Process Flow Example: Planning and Implementing Renewable Energy (Renewable Portfolio Standard) – New York



## **New York – Highlights of Siting and Power Authorities**

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- **No single coordinated state-level siting process**
  - **Siting approval at local level**
  - **Department of Environmental Conservation (DEC) issues environmental permits**
  - **PSC issues Certificate of Public Convenience and Need (CPCN) for transmission interconnections for generators**
  - **PSC approves power and gas transmission projects**
  
- **Two power authorities, with relatively limited scope, have long-term contracting authority and ability to build/own generation in certain contexts and locations**
  - **NYPA procures for state buildings, municipals/cooperatives, and New York City (backstop)**
  - **LIPA conducts IRP, procures supply and serves load for Long Island only**

## **California**

## California

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### ■ State Profile

- Retail Sales in 2006 ~ 263,000 GWh
- Restructured in 1996, but after the 2000 California energy crisis long-term procurement and integrated resource planning re-instated
- Customer choice was suspended in 2001
- ISO (CAL-ISO), but single state
- Active Renewable Portfolio Standard and Energy Efficiency (EE) programs
- Greenhouse Gas Mitigation goals and other significant environmental initiatives
- California Power Authority (CPA) sunset January 2007

## California Entities/Agencies with Energy-Related Activities

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### ■ Primary Entities/Agencies

- California Public Utilities Commission (CPUC)
  - Division of Ratepayer Advocates (DRA) (*within CPUC, equivalent to CT OCC*)
- California Energy Resources Conservation and Development Commission (CEC)
- Air Resources Board of the California EPA (ARB)
- Air Quality Management Districts (AQMD)

### ■ Secondary Entities/Agencies Relative to Energy

- Division of Oil, Gas and Geothermal Resources (DOGGR)
- California Department of General Services (DGS)
- Low Income Oversight Board (LIOB)

## California – Highlights of Planning

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- **The Integrated Energy Policy Report (IEPR) guides all state energy policy**
  - Per statute, CEC develops an IEPR through a public process that provides comprehensive recommended actions for all fuels to achieve state energy and environmental policies. A new IEPR is adopted every two years and an update every other year.

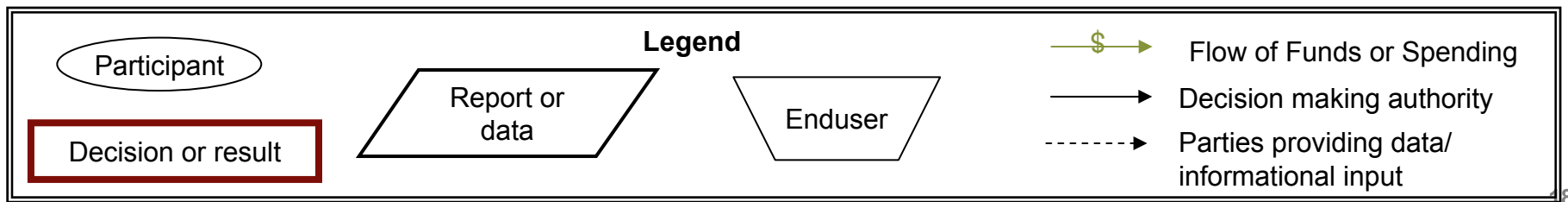
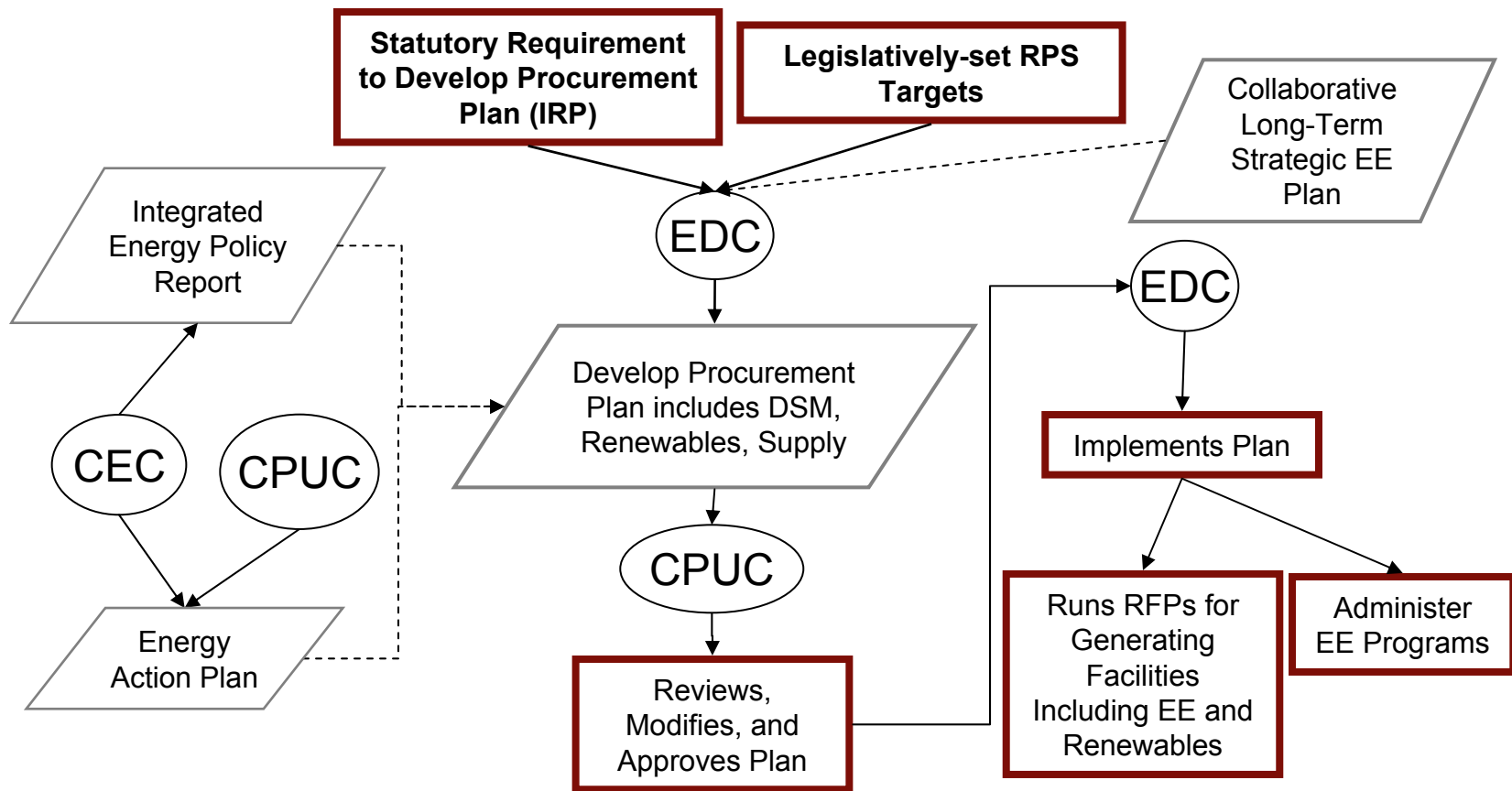
*"[C]onduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety."*  
*(Pub. Res. Code § 25301(a)). (SB1389)*
  - Initiated by the CPUC, the CPUC and California Energy Commission (CEC) also jointly develop an Energy Action Plan focused on utilities and municipalities involved in electric and gas.
  - The IEPR appears to be the overriding policy report for all energy-related policy matters.

## California – Highlights of Planning

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- **Electric utilities are required to develop comprehensive Procurement Plans (Integrated Resource Plan)**
  - The “loading order” is to invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply.
  - Procurement plan should be a portfolio mix of short-term, mid-term, and long-term contracts.
  - CPUC reviews, modifies, approves, and oversees implementation (competitive bidding) of utilities’ procurement plans, including pre-approval of long-term (>5 year) contracts.
  - Also requires the use of a greenhouse gas (GHG) adder as a bid evaluation component

## Process Flow Example: Planning and Implementing Procurement Plan – California



## California – Highlights of Planning

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- **Public Utility Commission has broad authority over state energy policy (constitutional authority). For example:**
  - Initiated a collaborative stakeholder process to develop a 20-year Strategic EE Plan.
  - Established incentives/penalties for utility EE programs.
  - Established a Solar Initiative of reaching 3000 MW by 2017 for the state.

## California – Highlights of Siting/Permitting

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- **Depending on the resource, different agencies are responsible for siting and environmental permitting.**
  - CEC approves thermal generation projects (>50 MW), including interconnection and environmental permits.
  - CPUC approves power and gas transmission projects.
  - Regional Air Quality Management Districts (AQMD) approve environmental permits for thermal generation projects (<50 MW).
  - Federal Bureau of Land Management (BLM) oversees 2/3 of California land, so projects on BLM land are outside of state jurisdiction.

## **Other States/Provinces: Highlights of Specific Processes**

## **New Jersey – State Background**

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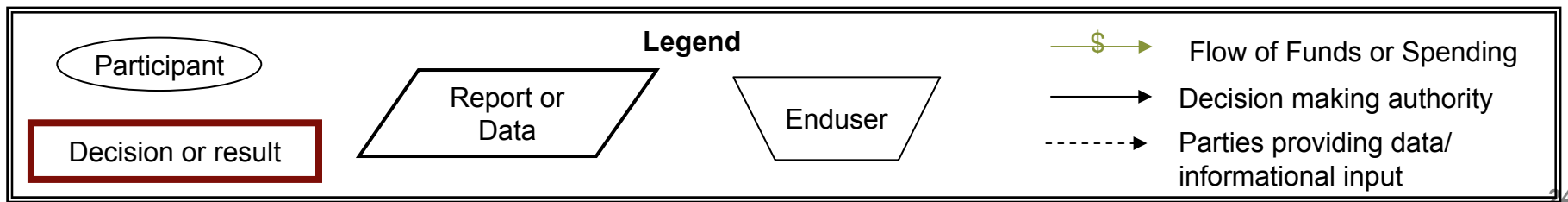
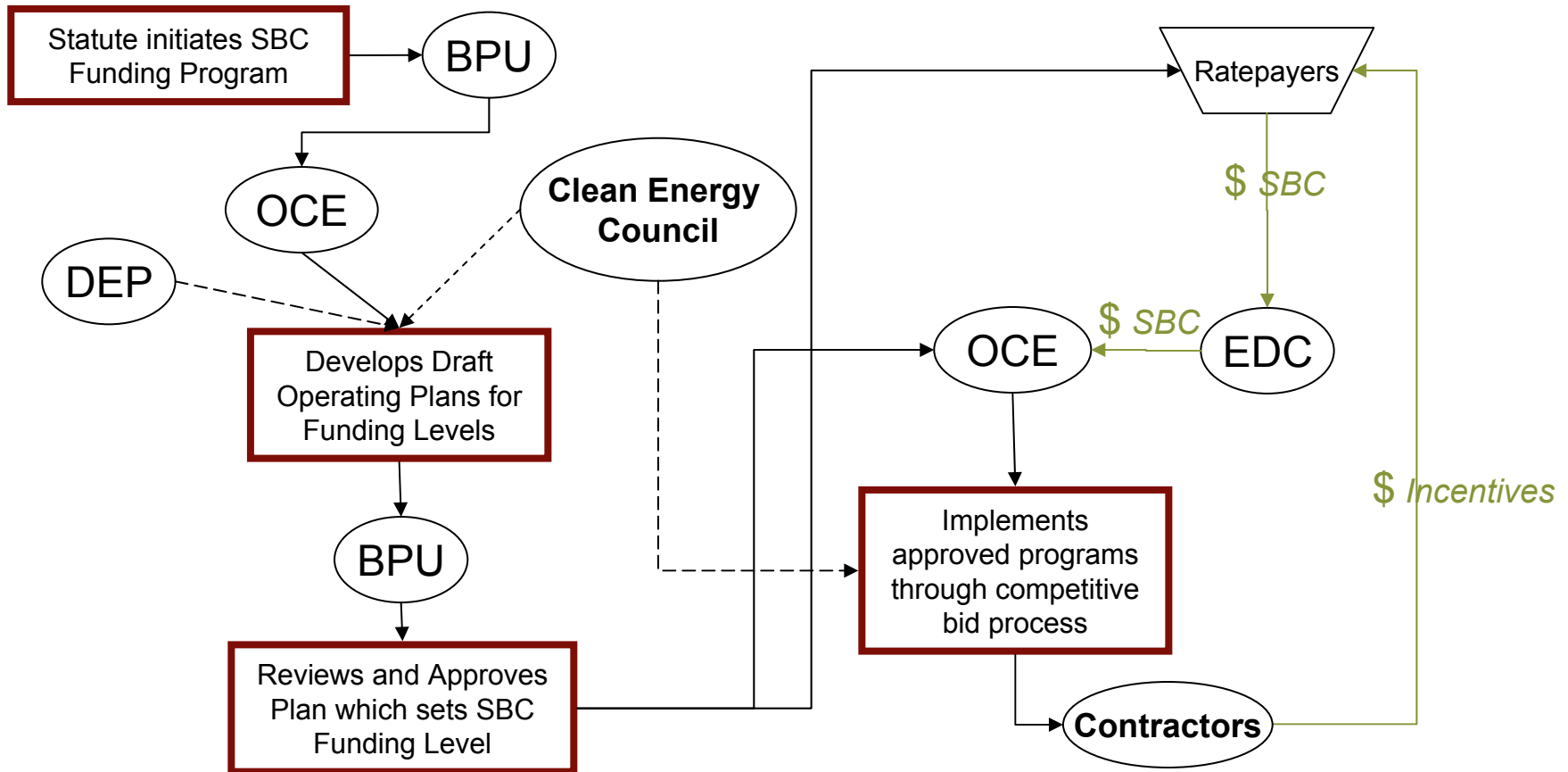
- **Background (Retail Sales in 2006 ~ 79,700 GWh)**
  - Restructured and full Customer Choice
  - Member of PJM (a multi-state ISO)
  - Active RPS and EE programs
  - Regional Greenhouse Gas Initiative (RGGI) participant and significant environmental drivers
  
- **Primary Entities/Agencies**
  - Board of Public Utilities (BPU)
    - Office of Clean Energy (OCE) (*within BPU*)
  - Economic Development Authority (EDA)
  - Department of Environmental Protection (DEP)

## **New Jersey – Highlights of Planning**

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- **Governor revived a comprehensive all-fuels, all-sectors Energy Master Plan (EMP). Draft version has been issued for comment.**
- **By statute, New Jersey Board of Public Utility (BPU) has central role in DSM programs for electric and natural gas**
  - Office of Clean Energy (OCE under the BPU), with input from the DEP, develops a Comprehensive Energy Efficiency and Renewable Energy Resource Analysis (CRA) every four years which determines SBC funding levels for DSM (and small renewable resources).
  - BPU reviews and approves the funding levels recommended in the CRA. The CRA must be consistent with the EMP goals.
  - The OCE administers the programs.
  - Going forward, per statute related to RGGI revenues, the EDA will receive 60% of the auction revenues to administer EE and renewable programs for commercial/industrial customers.

## Process Flow Example: Planning and Implementing DSM – New Jersey



## Ontario – Background

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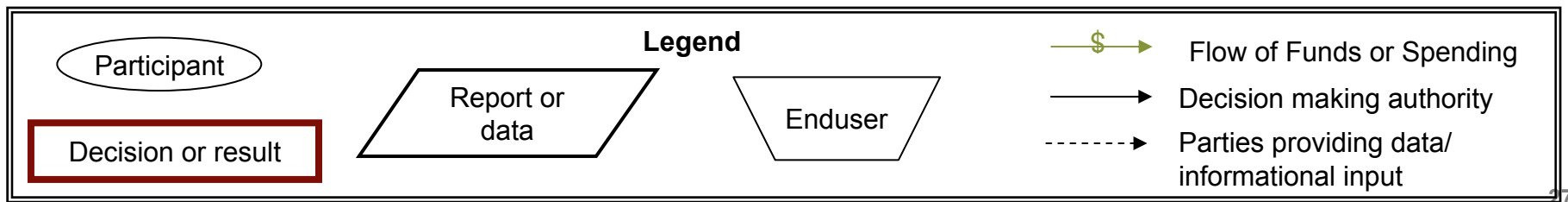
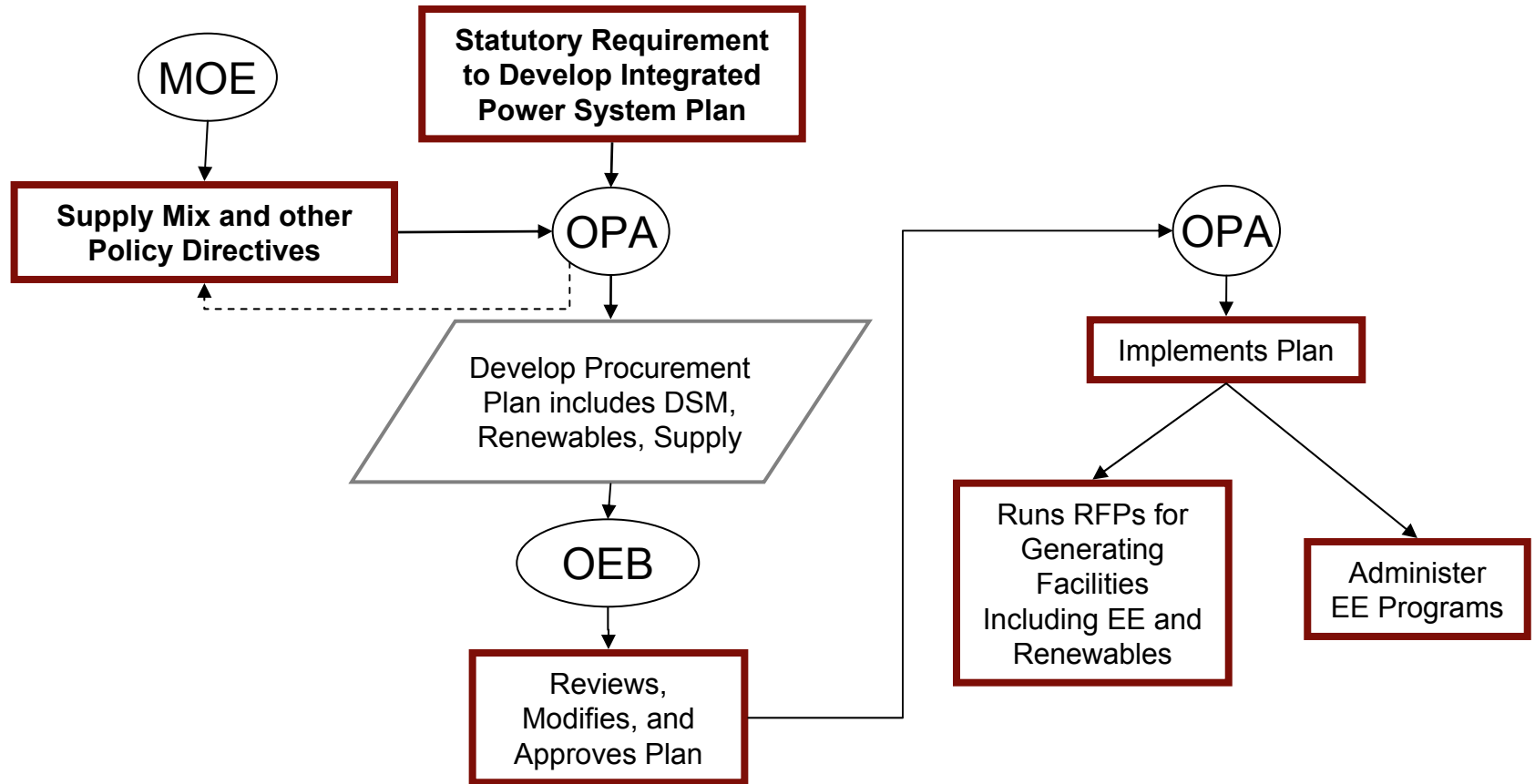
- **Background (Retail Sales in 2006 ~ 151,000 GWh)**
  - Restructured and full Customer Choice
  - Single ISO (ISO Ontario)
  - Active EE programs
  - No RPS but extensive renewable procurement with long-term contacts
  
- **Primary Entities/Agencies**
  - Ministry of Energy (MOE)
  - Ontario Energy Board (OEB)
  - Ontario Power Authority (OPA)
    - **Conservation Bureau (CB) (*within OPA*)**
  - Ministry of the Environment (MOTE)

## Ontario – Highlights of Procurement and Siting/Permitting

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- **Ontario Power Authority (OPA) has central procurement role for all electricity supply mix.**
  - Broad role for Ontario Power Authority (OPA) in electric planning through integrated power system plan that considers all generation resources (renewables, DSM, and conventional).
  - Long-term contracting is possible.
  - OPA recommends supply mix. The Energy Ministry determines final mix to procure.
  
- **Streamlined permitting/siting process**
  - No “need” determination as criterion for siting.
  - Environmental review dependent on type of resource. “Cleaner” resources require little environmental review.

## Process Flow Example: Planning and Implementing Procurement Plan – Ontario



## Vermont – State Background

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- **Background (Retail Sales in 2006 ~ 5,800 GWh)**
  - Regulated and No Customer Choice
  - Member of ISO-NE (Multi-state ISO)
  - Active EE programs
  - No RPS but long-term contracting of renewable
  - State Power Authorities—Vermont Public Power Supply (VEPPSA), Vermont Hydroelectric
  - Regional Greenhouse Gas Initiative (RGGI) participant
  
- **Primary Entities/Agencies**
  - Public Service Board (PSB)
    - Department of Public Service (DPS) (*within PSB*)
  - Vermont Energy Investment Corporation (VEIC) (*known as Efficiency Vermont (EV)*)
  - Agency of Natural Resources (ANR)

## Vermont – Highlight on Procurement

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- **Vermont is a highly regulated state with central procurement for DSM and some renewables.**
  - Comprehensive integrated resource planning process for utilities
  - Long-term procurement of renewables is possible through utilities or through third-party administrator (SPEED and VEPPSA)
  - VEIC, a third-party, through Efficiency Vermont administrates DSM programs with annual review of plan and funding by the Public Service Commission (PSC). Funds collected through SBC.
  - Legislative caps on spending recently removed.
  - Public Benefit Funds cannot be redirected for other state purposes (general obligation needs)

## Process Flow Example: Planning and Implementing Energy Efficiency -- Vermont

