



Energy Policy
and Planning Office

MINISTRY OF ENERGY

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Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

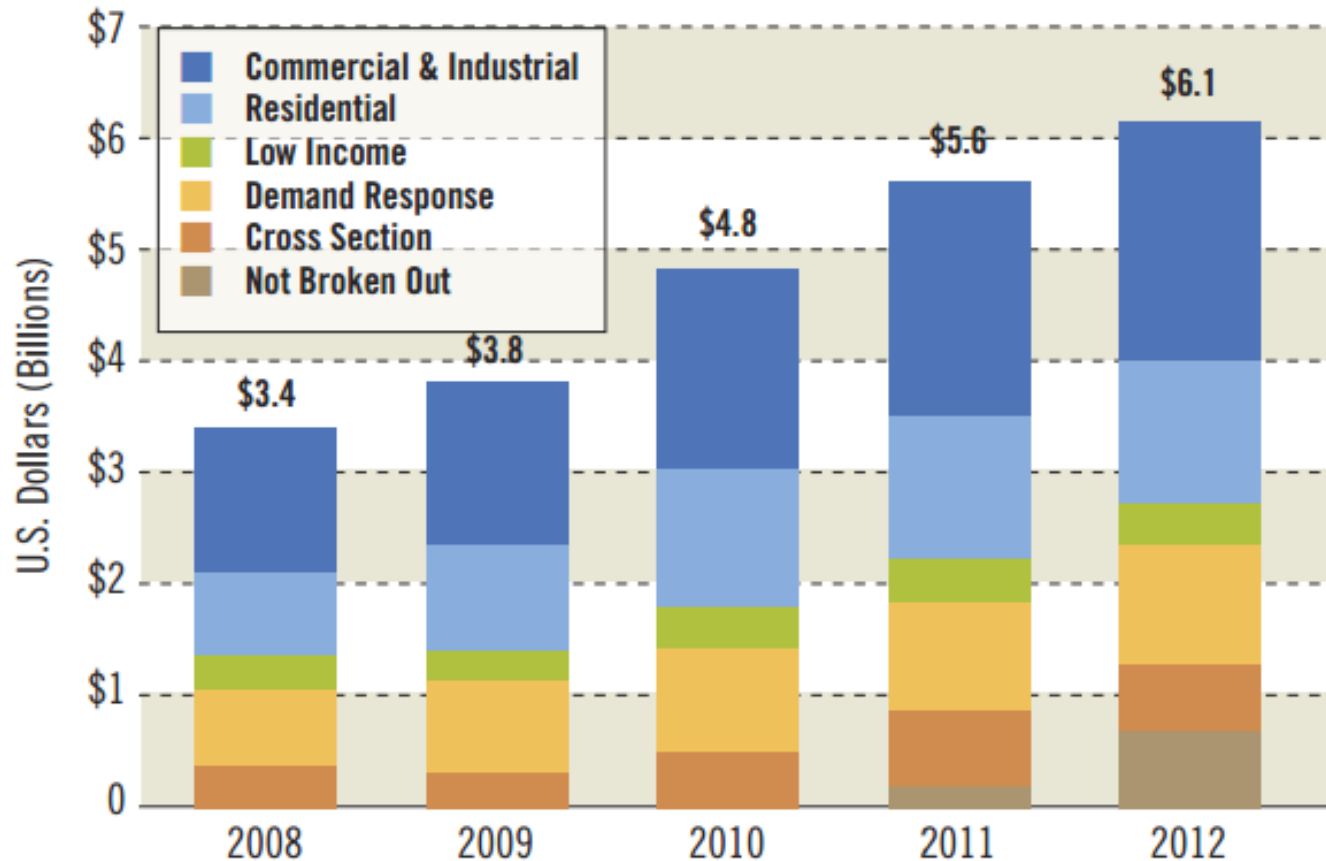
Workshop on Design of the Standard Offer Program (SOP) Pilot
Organised by the Thai-German Programme on
Energy Efficiency Development Plan (TGP-EEDP)
17 December 2014 (08.30-16.30)
Eastin Grand Hotel, Sathorn Bangkok, Thailand

Background Presentation:

Linkages between EERS and the SOP Scheme

Peter du Pont, Ph.D., Vice-President, Government Services, Nexant Asia

Increase in US budgets for Utility DSM/EE in the US

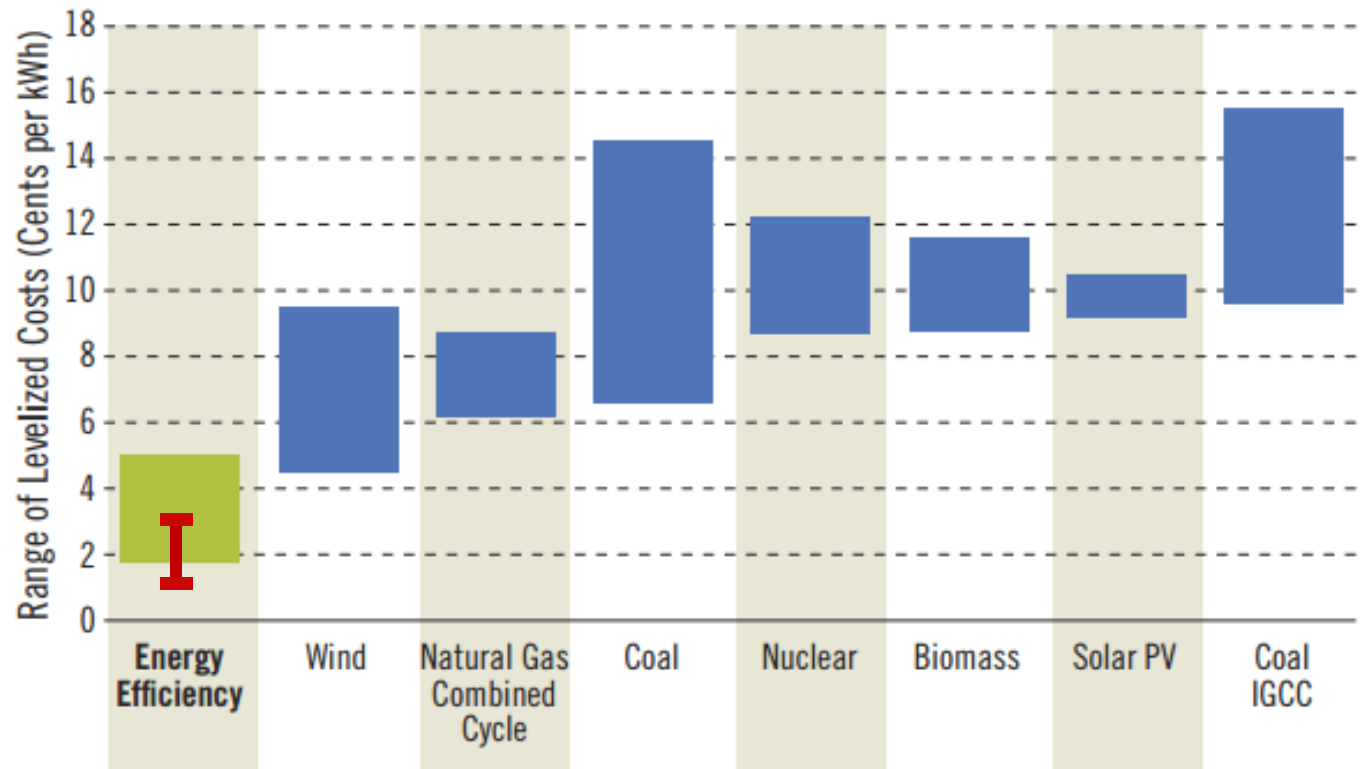


Source: Consortium for Energy Efficiency

Source: Ceres, "Benchmarking Utility Clean Energy Deployment: 2014,":

<http://www.ceres.org/resources/reports/benchmarking-utility-clean-energy-deployment-2014>

The Economics



1.3-3.4 US cents/kWh
Range for
Thai EE
Programs

Source: ACEEE and Lazard

- C&I Buildings contribute 45% of the US Greenhouse Gas footprint
- 10% improvement in energy efficiency would generate an estimated \$20 billion savings!

Sources: CERES <http://www.ceres.org/resources/reports/benchmarking-utility-clean-energy-deployment-2014> and ENERGY STAR

State Policy: EERS in the US

Purpose:

EERS in the US drive energy efficiency investment by utilities in customer projects to support sustainability, economic & environmental goals.

Value to SOP program planning:

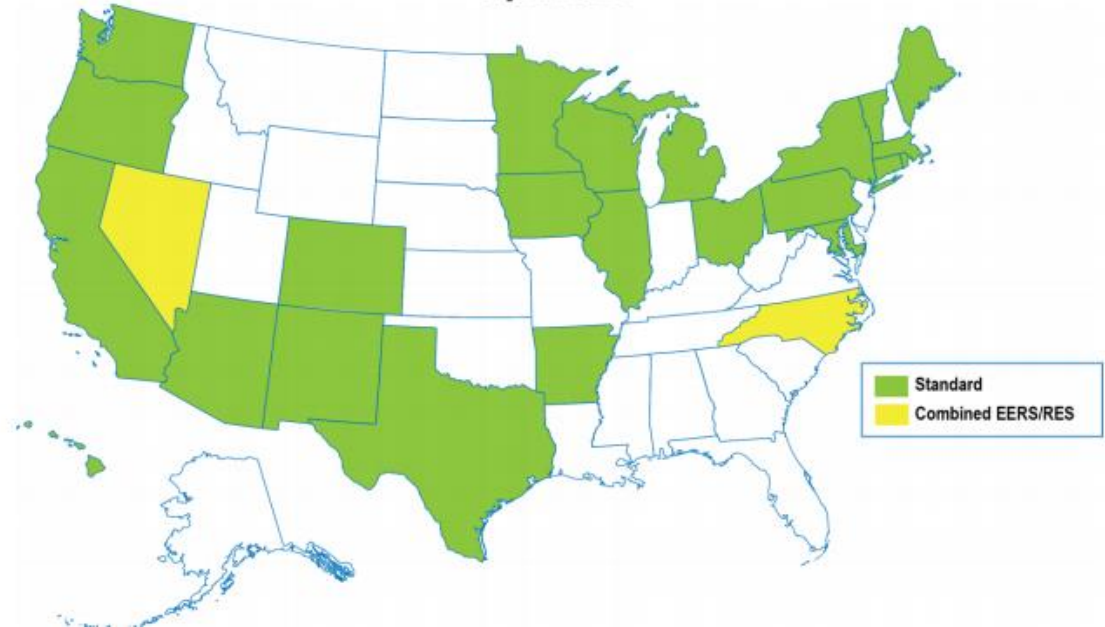
- Best practices in planning, implementation and EM&V
- Historic perspective of program influence ~10 years

Program Impact:

25 states have implemented EERS

State Energy Efficiency Resource Standards (EERS)

April 2014



Note: RES is short for Renewable Energy Standard, which is analogous to a RES, or Renewable Portfolio Standard

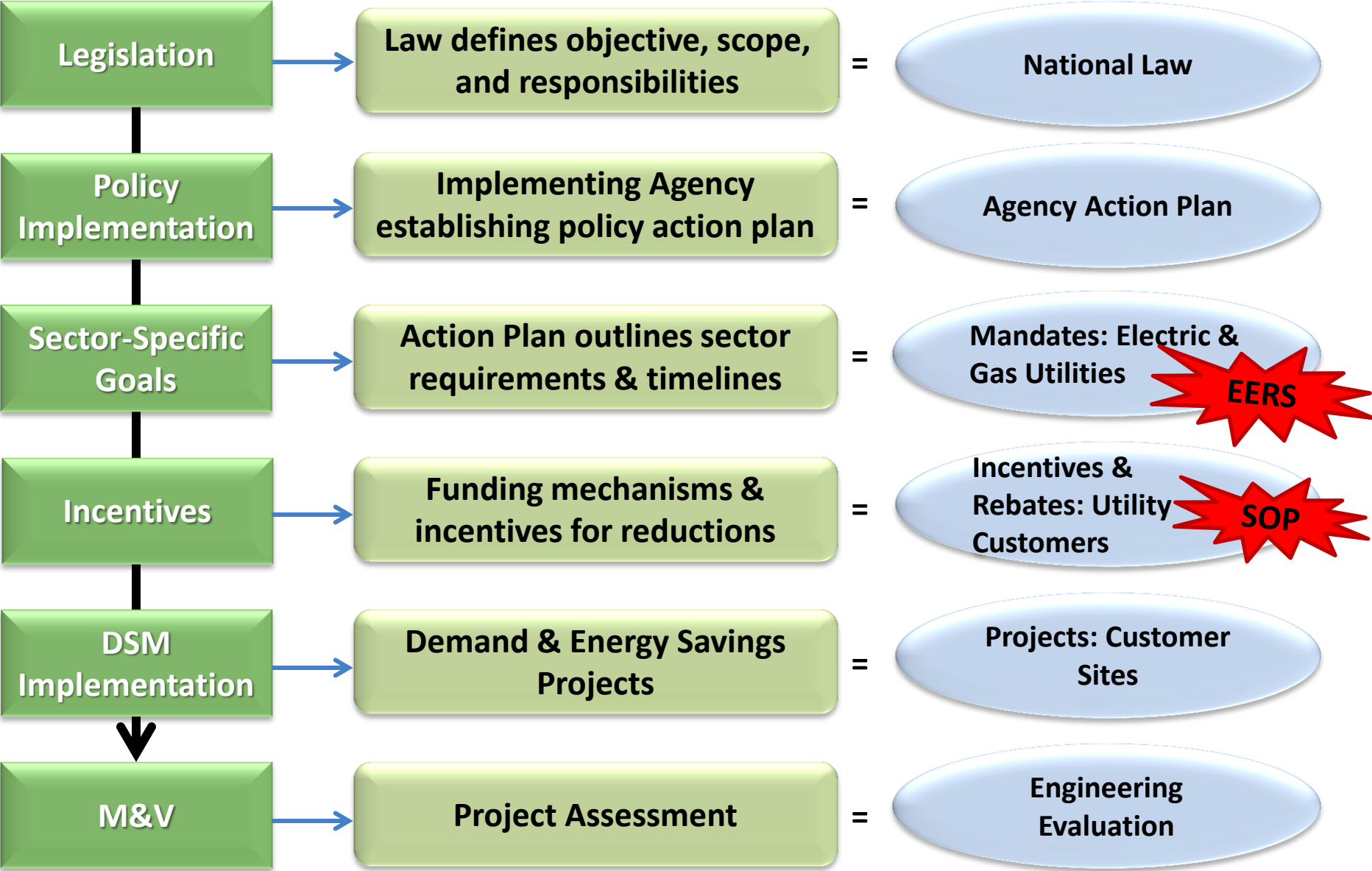
Map Source: ACEEE EERS Overview: <http://www.aceee.org/topics/eers>

Bring Energy Efficiency Policy to Life

Process:

Objectives:

Execution:



Source: Nexant

Definition: Energy Efficiency Resource Standard (EERS)



: Energy Provider Focus

- “An Energy Efficiency Resource Standard (EERS) establishes **specific, long-term targets** for energy savings that utilities or non-utility program administrators **must meet through customer energy efficiency programs**. An EERS can apply to either electricity or natural gas utilities, or both, depending on the state, and can be adopted through either legislation or regulation.” – American Council for an Energy-Efficient Economy

Selected US EERS Targets

State	Target	Enacted
Arizona	<u>Cumulative Electric Savings of 22%</u> in retail sales (2011-2020) Cumulative Natural Gas Savings of 6% by 2020	2010
California	<u>Annual Demand savings 0.9%</u> to 2020, and demand reduction 4,541 MW through 2020 Natural gas 619 MMTh 2012-2020 Utilities must pursue all cost-effective efficiency resources	2004
Hawaii	<u>4,300 GWh</u> by 2030 (equal to 30% of forecasted sales or 1.4% annual savings)	2009
Illinois	Annual electric savings <u>1% in 2012 up to 2% in 2015</u> and thereafter Natural Gas cumulative savings target of <u>8.5% by 2020</u> from 2011 Energy efficiency measures face cost cap	2007
New York	Electric <u>15% cumulative savings</u> 2008-2015 Natural gas <u>15% cumulative savings</u> 2008-2020	2008

Source: ACEEE Energy Efficiency Policy Brief:

<http://www.aceee.org/files/pdf/policy-brief/eers-04-2014.pdf>

Note: Report includes complete list of state programs and requirements

EE Obligations in Europe

EE Obligation = Energy Provider Savings
Mandate for 20% by 2020

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EERS

- In 2012 the European Union adopted an Energy Efficiency Directive to direct progress toward the **2020 target for 20% energy efficiency**.
 - “The key principle is that some part of the energy company (usually the energy retailer or the distributor) has an **obligation to save energy in eligible end use** customers’ premises or homes and that if they fail to deliver those energy savings, the company will incur financial penalties.”

**Target = 1,483 Mtoe primary energy/
no more than 1,086 Mtoe of final energy**

Source: European Commission, Energy Efficiency Directive:
http://ec.europa.eu/energy/efficiency/eed/eed_en.htm

Definition: Standard offer program (SOP)



: Energy Consumers

Standard Offer Program (SOP): “A program offering a standard payment to energy efficiency service providers **based upon the amount of energy and demand savings achieved** through the installation of energy efficiency measures at electric customer sites according to published program requirements,” – Texas Public Utilities Commission

Source: Texas PUC, Public Ruling 25.181 relating to the State Energy Efficiency Goal:
<http://www.puc.texas.gov/agency/rulesnlaws/subrules/electric/25.181/21074pub.pdf>

Connection Between EERS & SOP in Thailand

EERS = Energy Provider
Savings Mandate



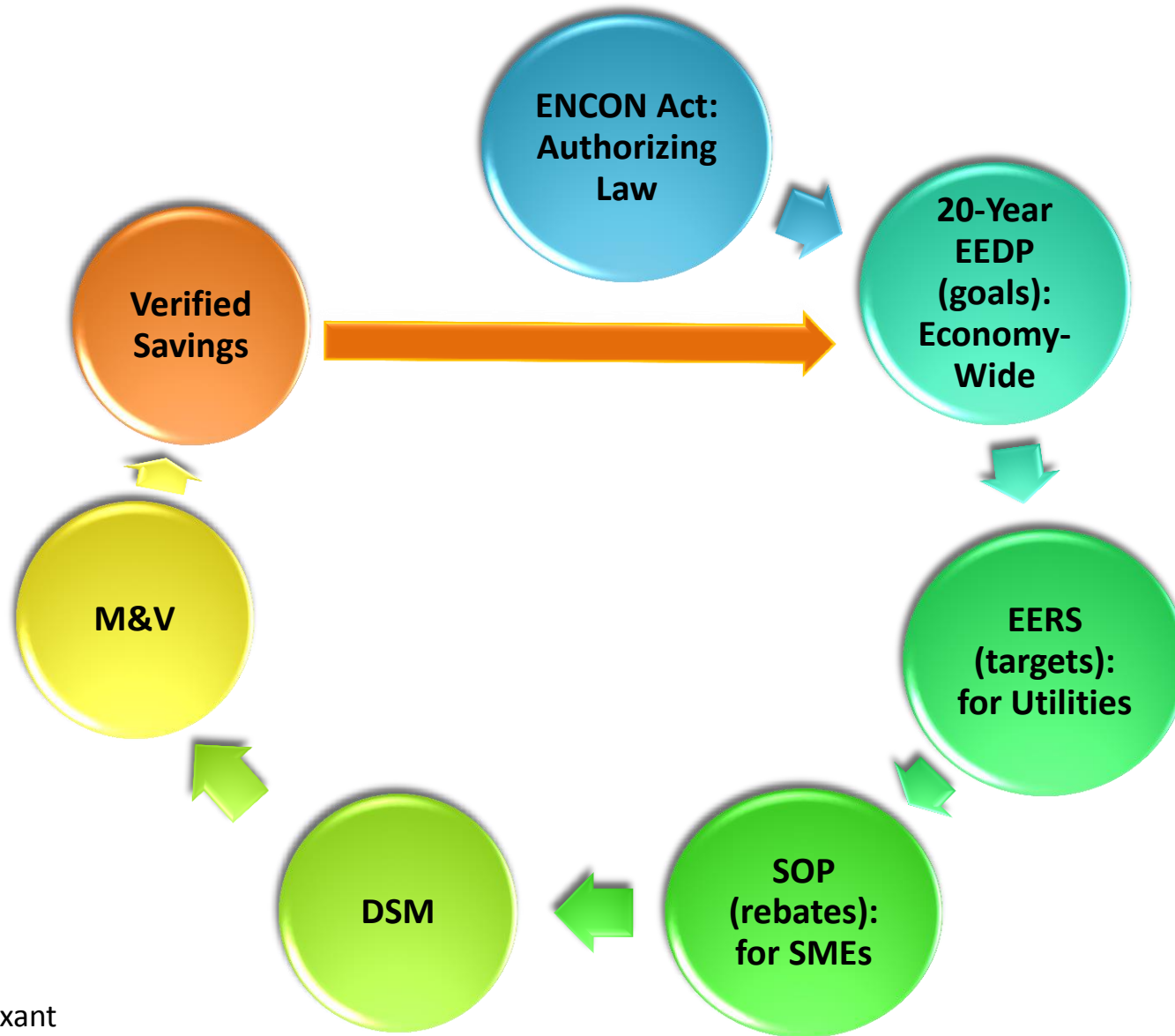
SOP = Financial
Incentive to Engage
Customers

- “Large-scale energy businesses, e.g. those in the electricity, oil and natural gas industry, will **be required to implement energy conservation promotion measures to encourage their customers to reduce energy use by a specified minimum standard** (Energy Efficiency Resource Standards: EERS), instead of allowing such measures to be voluntarily undertaken as previously practiced.”

The SOP is an incentive which can be used to achieve the savings mandate.

Source: Thai EEDP, pg. 4-4: http://www.eppo.go.th/encon/ee-20yrs/eedp_eng.pdf

Energy Efficiency Framework in Thailand



Source: Nexant

Thank you



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