

*OFFICE OF CLEAN ENERGY*  
*CLEAN ENERGY GUIDANCE*

# Benefit Cost Analysis Filing Requirement Guidance

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## Version History Log:

Version	Date Issued	Approval	Changes
1.0	2018-05-14	Colleen Gerwitz, Director	N/A

## Purpose:

The purpose of this Clean Energy Guidance document is to clarify benefit cost analysis (BCA) filing requirements for all future utility-administered energy efficiency portfolio proposals. This Guidance document establishes a common template for documenting and presenting societal cost test (SCT) analyses and details certain standard inputs, including the source(s), schedule and responsible party for updating such inputs. The use of this common template by the utilities will enable a more efficient review of, and comparison between, the electric and natural gas portfolio BCA filings made by the various utilities.

Clean Energy Guidance documents are in effect until revised, rescinded or superseded.

## Background:

In its January 21, 2016 Order (BCA Framework Order),<sup>1</sup> the Commission adopted a Benefit Cost Analysis Framework that, among other things, established the societal cost test, including the value of avoided external CO<sub>2</sub>, as the primary determinative test for Commission consideration. The societal cost test is applied at the portfolio level and its Benefit Cost Ratio (BCR) must exceed a 1.0.

In its March 15, 2018 Order (March 2018 Utility EE Order),<sup>2</sup> the Commission required each utility to file publicly accessible workpapers supporting the BCAs performed for their proposed energy efficiency portfolios, concurrent with all future filings or submittals that require benefit cost analysis. The March 2018 Utility EE Order also directed Staff to issue BCA Filing Requirement Guidance.

## Common Template:

Included in Attachment A of this Guidance Document are common templates to be used for electric and natural gas energy efficiency portfolios. DPS Staff will provide the common template(s) to all utilities in an active excel workbook for use.

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<sup>1</sup> Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, Order Establishing the Benefit Cost Analysis Framework (issued January 21, 2016).

<sup>2</sup> Case 15-M-0252, In the Matter of Utility Energy Efficiency Programs, Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2019-2020 (issued March 15, 2018).

Utilities should submit the populated active excel workbook (i.e., the common template) detailing the inputs used for their BCA analyses, and resulting portfolio-level SCT BCRs, of their energy efficiency portfolios concurrent with all future filings for Commission action. Staff retains the right to request additional information related to the information presented in the common template as part of Staff's review process.

### Inputs, Sources and Frequency of Updates:

The following tables detail the common inputs, applicable sources and expected frequency of updates of such inputs. Actual values associated with the various inputs for which DPS is listed as the Responsible Party will be posted on the Department's website. Data Inputs for which the Utility is listed as the Responsible Party must be accompanied by an explanation of and the source for the inputs.

#### Generic Inputs

##### Applicable to Electric and Natural Gas

<b>Data Input</b>	<b>Source</b>	<b>Responsible Party</b>	<b>Frequency &amp; Schedule</b>
Inflation Rate	Long run Gross Domestic Product Price Index (GDP-PI) consensus inflation forecast.	DPS	Semi-annual. March & October Issues of Blue Chip Economic Indicators.
Weighted Average Cost of Capital (WACC)	Utility-specific information	Utility	Pre-tax, nominal WACC, as approved in individual utility rate cases.
Total Average System Losses	Utility-specific information	Utility	From most recently filed electric loss study or LAUF target percentage in current natural gas tariff.
Portfolio Costs	Utility-specific information including costs for Incentives & Services, Program Implementation, Portfolio Administration (including associated labor costs), Portfolio EM&V and Participant Net Cost	Utility	Filed with proposed portfolio(s).
Portfolio Characteristics	Utility-specific portfolio characteristics including avoided energy (kWh or Dth) and coincident demand reduction (kW or Dth-peak day)	Utility	Filed with proposed portfolio(s).

## Avoided Cost Data Inputs

### Applicable to Electric

<b>Data Input</b>	<b>Source</b>	<b>Responsible Party</b>	<b>Frequency &amp; Schedule</b>
LBMP (\$/kWh)	Congestion Assessment and Resource Integration Study (CARIS)	NYISO	Biennial. July.
Generation Capacity (\$/kW)	Installed Capacity (ICAP) Model based on NYISO published data	DPS	Annual. Typically by June.
CO2 (\$/kWh)	Based on the Clean Energy Standard Tier 1 Renewable Energy Credit (REC) price or the Federal Environmental Protection Agency's (EPA) Societal Cost of Carbon (SCC) net of Regional Greenhouse Gas Initiative (RGGI) clearing price.	NYSERDA/ DPS	Annually.
Distribution System Capacity (\$/kW)	Utility-specific information	Utility	Utility distribution marginal cost study.

### Applicable to Natural Gas

<b>Data Input</b>	<b>Source</b>	<b>Responsible Party</b>	<b>Frequency &amp; Schedule</b>
Energy (\$/Dth)	CARIS (includes transmission charge to citygate.) or Utility-specific forecast of natural gas commodity costs	DPS (based on NYISO data) OR Utility-specific forecast of natural gas costs	Biennial. July. OR Filed with proposed portfolio.
CO2 (\$/Dth)	Based on EPA's SCC	DPS	Annually.
Distribution System Capacity (\$/Dth-peak day)	Utility-specific information	Utility	Utility distribution marginal cost study.

Utilities may include additional categories and inputs to those listed in the tables above, provided such categories of benefit and cost streams are defined in the utility's BCA Handbook. The use of such additional benefits and/or costs in a BCA must be accompanied by an explanation of and the source for the inputs.

## Transparency

Transparency is imperative, thus, a centralized location has been created on the DPS website to post current standard BCA inputs, as well as archive previous standard inputs. This information can be located at: [Utility EE BCA Filing Requirements](#)

Utilities are required to file publicly accessible work papers, using the common template and detailing the BCAs for the energy efficiency portfolios. The use of this common template by the utilities will enable a more efficient review of, and comparison between, the many expected electric and gas portfolio BCA filings.

## APPENDIX A

Excerpts from the Electric Portfolio Tab and Gas Portfolio Tab of the Common Template for BCA Filings Excel Workbook file are shown below.

This Excel Workbook file is meant to collect utility-administered energy efficiency portfolio benefit cost analysis information in a consistent format for ease of auditing and comparison across utilities.

### Electric Portfolio Tab

Color Scheme
Yellow - User Input
White - Calculation

#### Common Template for BCA Filings Electric Portfolio

Utility	Name of Utility
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#### Utility Specific Assumptions

First Year of Portfolio	2018
Inflation Rate (GDP-PI)	
WACC (Nominal Discount Rate)	
Avg. Losses	

### BCA NPV

	Benefits	Costs	Benefit Cost Ratio
2018	\$ -	\$ -	
2019	\$ -	\$ -	
2020	\$ -	\$ -	
2021	\$ -	\$ -	
2022	\$ -	\$ -	

## **Electric Portfolio Tab**

**Avoided Cost Streams**

*Nominal \$s*

	LBMP (\$/kWh)	CO2 (\$/kWh)	Generation Capacity (\$/kW)	Transmission Capacity (\$/kW)	Distribution Capacity (\$/kW)	Secondary Distribution Capacity (\$/kW)
2018						
2019						
2020						
2021						
2022						
2023						
2024						
2025						
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2028						
2029						
2030						
2031						
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## **Electric Portfolio Tab**

2018 Portfolio Characteristics

	Avoided Energy [kWh]	Demand Reduction [kW]	Transmission [kW]	Distribution [kW]
2018				
2019				
2020				
2021				
2022				
2023				
2024				
2025				
2026				
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2048				

\*Not shown are similar portfolio characteristics tables for 2019, 2020, 2021 & 2022 portfolios.

## **Electric Portfolio Tab**

**2018 Portfolio Costs**  
*Nominal \$s*

	Incentives & Services	Program Implementation	Portfolio Administration	Portfolio EM&V	Participant Net Cost	Total Societal Cost
2018						
2019						
2020						
2021						
2022						
2023						
2024						
2025						
2026						
2027						
2028						
2029						
2030						
2031						
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2037						
2038						
2039						
2040						
2041						
2042						
2043						
2044						
2045						
2046						
2047						
2048						
					NPV	\$ -

\*Not shown are similar portfolio costs tables for 2019, 2020, 2021 & 2022 portfolios.



## Electric Portfolio Tab

**2018 Portfolio Benefits**

*Nominal \$s*

	LBMP (\$)	CO2 (\$)	Generation Capacity (\$)	Distribution Transmission (\$)	Primary Distribution (\$)	Secondary Distribution (\$)	Total Portfolio Benefits
2018							
2019							
2020							
2021							
2022							
2023							
2024							
2025							
2026							
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2040							
2041							
2042							
2043							
2044							
2045							
2046							
2047							
2048							
							NPV \$ -

\*Not shown are similar portfolio benefits tables for 2019, 2020, 2021 & 2022 portfolios.

**Gas Portfolio Tab**

<b>Color Scheme</b>
<b>Yellow - User Input</b>
<b>White - Calculation</b>

**Common Template for BCA Filings  
Gas Portfolio**

<b>Utility</b>	<b>Name of Utility</b>
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**Utility Specific Assumptions**

<b>First Year of Inflation Rate (GDP-PI)</b>	2018
<b>WACC (Nominal Discount Rate)</b>	
<b>Avg. Losses</b>	

**BCA NPV**

	<b>Benefits</b>	<b>Costs</b>	<b>Benefit Cost Ratio</b>
2018	\$ -	\$ -	
2019	\$ -	\$ -	
2020	\$ -	\$ -	
2021	\$ -	\$ -	
2022	\$ -	\$ -	

## Gas Portfolio Tab

Avoided Cost Streams

*Nominal \$s*

	Energy Cost [\$Dth]	CO2 [\$Dth]	Distribution System Capacity [\$Dth -peak day]
2018			
2019			
2020			
2021			
2022			
2023			
2024			
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**Gas Portfolio Tab**

2018 Portfolio Characteristics

	Avoided Energy (Dth)	Avoided Capacity (Dth - peak day)
2018		
2019		
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
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2048		

\*Not shown are similar portfolio characteristics tables for 2019, 2020, 2021 & 2022 portfolios.

## Gas Portfolio Tab

**2018 Portfolio Costs**  
*Nominal \$s*

	Incentives & Services	Program Implementation	Portfolio Administration	Portfolio EM&V	Participant Net Cost	Total Societal Cost
2018						
2019						
2020						
2021						
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2024						
2025						
2026						
2027						
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2047						
2048						
					NPV	\$ -

\*Not shown are similar portfolio costs tables for 2019, 2020, 2021 & 2022 portfolios.

## Gas Portfolio Tab

**2018 Portfolio Benefits**

*Nominal \$s*

	Energy (\$)	CO2 (\$)	Distribution System Capacity (\$Dthm -peak day)	Total Portfolio Benefits
2018				
2019				
2020				
2021				
2022				
2023				
2024				
2025				
2026				
2027				
2028				
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2045				
2046				
2047				
2048				
			NPV	\$ -

\*Not shown are similar portfolio benefits tables for 2019, 2020, 2021 & 2022 portfolios.