



Comments On Illinois Energy Efficiency Policy Manual Version

Section 8: Total Resource Cost Test

8.1 Statutory Definitions

Section 8-103B TRC Test: "Total Resource Cost Test" or "TRC Test" means a standard that is met if, for an investment in Energy Efficiency or demand-response Measures, the benefit-cost ratio is greater than one. The benefit-cost ratio is the ratio of the net present value of the total benefits of the Program to the net present value of the total costs as calculated over the lifetime of the Measures. A Total Resource Cost Test compares the sum of avoided electric utility costs, representing the benefits that accrue to the system and the Participant in the delivery of those efficiency Measures and including avoided costs associated with reduced use of natural gas or other fuels, avoided costs associated with reduced water consumption, and avoided costs associated with reduced operation and maintenance costs, as well as other quantifiable societal benefits, to the sum of all Incremental Costs of end-use Measures that are implemented due to the Program (including both utility and participant contributions), plus costs to administer, deliver, and evaluate each demand-side Program, to quantify the net savings obtained by substituting the demand-side Program for supply resources. In calculating avoided costs of power and energy that an electric utility would otherwise have had to acquire, reasonable estimates shall be included of financial costs likely to be imposed by future regulations and legislation on emissions of greenhouse gases. In discounting future societal costs and benefits for the purpose of calculating net present values, a societal discount rate based on **actual, long-term Treasury bond yields should be used.** Notwithstanding anything to the contrary, the TRC Test shall not include or take into account a calculation of market price suppression effects or demand reduction induced price effects.¹

What is the rationale for using the actual, long term Treasury bond yields? Is this the benchmark used in other similar gas utility EE programs? Is this benchmark appropriate given recent market conditions (inflation, etc.) These conditions impact the opportunity cost of capital and the consumption rate of interest (rate at which a unit of present consumption is traded for a unit of future consumption), thereby adding a time element to the societal discount rate calculation. This time element especially matters in the context of climate change.

Section 8-104 TRC Test: "Cost-effective" means that the Measures satisfy the total resource cost test which, for purposes of this Section, means a standard that is met if, for an investment in Energy Efficiency, the benefit-cost ratio is greater than one. The benefit-cost ratio is the ratio of the net present value of the total benefits of the Measures to the net present value of the total costs as calculated over the lifetime of the Measures. The Total Resource Cost Test compares the sum of avoided natural gas utility costs, representing the benefits that accrue to the system and the Participant in the delivery of

¹ Illinois Power Agency Act (20 ILCS 3855/1-10).

those efficiency Measures, as well as other quantifiable societal benefits, including avoided electric utility costs, to the sum of all Incremental Costs of end use Measures (including both utility and Participant contributions), plus costs to administer, deliver, and evaluate each demand-side Measure, to quantify the net savings obtained by substituting demand-side Measures for supply resources. In calculating avoided costs, **reasonable estimates** shall be included for financial costs likely to be imposed by future regulation of emissions of greenhouse gases. The low-income Programs described in item (4) of subsection (f) of this Section shall not be required to meet the Total Resource Cost Test.²

What would constitute a reasonable estimate? How measured?

8.2 Measuring Cost-Effectiveness

Section 8-103B: In submitting proposed Energy Efficiency and Demand Response Plans and funding levels to meet the savings goals adopted by the Act, Program Administrators shall: Demonstrate that its overall Portfolio of Measures, **not including Low-Income Programs described in subsection (c) of this Section**, is Cost-Effective using the Total Resource Cost Test or complies with paragraphs (1) through (3) of subsection (f) of this Section and represents a diverse cross-section of opportunities for Customers of all rate classes, other than those Customers described in subsection (l) of this Section, to participate in the Programs. Individual Measures need not be Cost Effective.³

It will be important to ensure that low income programs are able to consider matters such as health, comfort and safety. We would like to see affordability considerations added to the societal costs and benefits of the revised TRC test, nevertheless.

Section 8-104: In submitting proposed Energy Efficiency Plans and funding levels to meet the savings goals adopted by this Act the utility shall: Demonstrate that its overall Portfolio of Energy Efficiency Measures, not including Programs covered by item (4) of this subsection (f), are Cost-Effective using the Total Resource Cost Test and represent a diverse cross section of opportunities **for Customers of all rate classes to participate in the Programs.**⁴

This is why the affordability issue remains relevant.

8.3 Calculating TRC

Measure-level, Program-level, and a Portfolio-level TRC shall be calculated prospectively and included in the Section 8-103B and Section 8-104 Plan filings. Program Administrators may calculate a single TRC for joint Programs proposed in the Section 8-103B and Section 8-104 Plan filings. Program Administrators offering integrated gas and electric Energy Efficiency Programs per Section 8-104(f)(6) may calculate a single Portfolio-level TRC. For Section 8-103B Programs, a retrospective

² Public Utilities Act (220 ILCS 5/8-104(b)).

³ Public Utilities Act (220 ILCS 5/8-103B(g)(3)).

⁴ Public Utilities Act (220 ILCS 5/8-104(f) and (f)(5)).

Portfolio-level TRC shall be calculated annually⁵ and at the end of the Plan using evaluation research findings and the best available information. For Section 8-104 Programs, a retrospective Portfolio-level TRC shall be calculated at the end of the Plan⁶ using evaluation research findings and the best available information. However, Program Administrators shall consider performing retrospective and/or prospective TRC calculations on an annual basis in order to inform the planning and implementation of efficiency Programs going forward, or as otherwise directed and/or approved by the Commission.

Please confirm that since it will be retrospective, that the calculations take into account actual data that is reliable, valid and based upon appropriate measures and use appropriate methods.

On the cost-side of the equation, when performing a Measure-level TRC, only the Incremental Costs of the Measure should be included.

When performing a Program-level TRC for Sections 8-103B and 8-104, the sum of the Incremental Costs of the Measures in the Program, as well as any Non-Incentive Costs that can be attributed to the Program, should be included.

We feel that inclusion of this language here but not above was confusing, and to address ICC Staff concerns with respect to the NTG application around other cost changes, we felt that this language would be better included in the definitions below.

When performing a Portfolio-level TRC, the sum of the Incremental Costs of the Measures in the Programs, Non-Incentive Costs that can be attributed to the Programs, as well as the Portfolio-level Costs should be included.⁷ In other words, when performing a Portfolio-level TRC, the costs include: the sum of all the costs included in the Program-level TRC analyses plus the Portfolio-level Costs, which consist of Non-Incentive Costs that relate to the Energy Efficiency Portfolio that have not already been accounted for in the Program-level TRC analyses. Portfolio-level Costs are defined in Section 5.2 of the Policy Manual, Portfolio Cost Categories. Efforts should be made to ensure that no double counting of costs nor exclusion of any costs occurs when performing the TRC Test analysis. TRC Test analysis results should be accompanied by language that demonstrates compliance with the TRC cost definitions by Program.

Do these costs take into consideration how installed measures are financed? For instance, measured funded by loans with high interest rates could entail different costs than those purchased with available cash or provided at low or no cost.

⁵ Public Utilities Act (220 ILCS 5/8-103B(g)(6)).

⁶ Public Utilities Act (220 ILCS 5/8-104(f)(8)).

⁷ Portfolio-level cost categories can be found in Section 5.2 of the Policy Manual, Portfolio Cost Categories.

8.4 TRC Benefits and Costs

For the purposes of the TRC Test analysis, benefits and costs should be classified in a manner that leads to each individual category of impact, as defined below, being a positive number – either a positive cost (i.e., no negative benefits) or a positive benefit (i.e., no negative costs). Total impacts for each category should be determined and then the **determination of whether the impact is a benefit or cost should be made**. Any additional benefits or costs not explicitly defined below should also be treated in this manner.⁸

[The determination would be made by whom?](#)

The following definitions should be adhered to for purposes of classifying and calculating benefits and costs when performing the TRC Test analysis.⁹

- i. **Electricity Cost Changes:** Total **cost changes** directly related to electricity, including electric energy, electric demand, and transmission and distribution cost changes. These cost changes include both avoided costs (e.g., electric energy or demand savings resulting in decreased electric costs) and cost increases (e.g., electric heating penalties from electric measures, electric cost increases associated with electrification measures). The Net-to-Gross Ratio is applied to all electricity cost changes in the TRC analysis.

[What is meant by cost changes? How is it defined as used here?](#)

[What is the rationale for the choice of Net-to-Gross Ratio?](#)

- ii. **Fossil Fuel Cost Changes:** Total cost changes directly related to fossil fuels, including natural gas and delivered fuels such as propane or fuel oil. These cost changes include both avoided costs (e.g., natural gas savings resulting in decreased natural gas costs from efficiency or electrification measures) and cost increases (e.g., natural gas heating penalties). The Net-to-Gross Ratio is applied to all fossil fuel cost changes in the TRC analysis.
- iii. **Water Cost Changes:** Total cost changes directly related to water. These cost changes include avoided costs (e.g., water savings resulting in decreased water

⁸ The Net-to-Gross Ratio should be applied to any additional benefits or costs not explicitly defined herein that are participant driven.

⁹ Portfolio-level cost categories can be found in Section 5.2 of the Policy Manual, Portfolio Cost Categories.

costs from efficiency measures).¹⁰The Net-to-Gross Ratio is applied to all water cost changes in the TRC analysis.

- iv. **Operations and Maintenance (O&M) and/or Deferred Baseline Replacement Cost Changes:** These cost changes include quantifiable O&M cost changes for specific measures, as well as deferred baseline replacement costs in cases where the efficient Measure has a significantly longer life than the relevant baseline measure (e.g., LEDs versus halogens).¹¹ The Net-to-Gross Ratio is applied to all O&M or deferred baseline replacement cost changes in the TRC analysis.

Which measures, specifically?

- v. **Greenhouse Gas (GHG) Reduction Cost Changes:** Total cost changes realized by society directly related to GHG reduction due to measures when such changes are not specifically quantified in other impact categories. These cost changes include avoided costs related to the IPA Act defined societal cost of carbon.^{12,13} The Net-to-Gross Ratio is applied to all GHG cost changes in the TRC analysis.
- vi. **Other Participant Non-Energy Impact (NEI) Cost Changes:** Total cost changes realized by program participants directly related to NEIs that are not specifically quantified in other impact categories. These cost changes could include avoided costs (e.g., monetized health and safety benefits associated with weatherization measures).¹⁴ The Net-to-Gross Ratio is applied to all participant NEI cost changes in the TRC analysis.

Applies to low-income energy efficiency programs. Is it envisioned that this version of the TRC test would be applied to utility energy efficiency and weatherization programs for low income utility customers?

- vii. **Other Societal Non-Energy Impact Cost Changes:** Total cost changes realized by society directly related to non-energy impacts that are not specifically quantified in other impact categories. These cost changes could include avoided costs (e.g., monetized societal health benefits produced by the reduction in

¹⁰ The obverse (water penalties resulting from efficiency measures) is not a case currently expected to exist, but should it occur, it should also be considered).

¹¹ The obverse (Measures with a significantly shorter life than the relevant baseline measure, and therefore added measure replacement costs as compared to the baseline) should also be accounted for should they occur.

¹² The obverse (societal cost increases resulting from GHG increases associated with Measures) should also be accounted for should they occur.

¹³ 20 ILCS 3855/1-56 (d-5)(1)(B)(i).

¹⁴ The obverse (participant cost increases resulting from NEIs associated with Measures) should also be accounted for should they occur.

criteria pollutants).¹⁵ The Net-to-Gross Ratio is applied to all societal NEI cost changes in the TRC analysis.

- viii. **Incremental Costs** means the difference between the cost of the efficient Measure and the cost of the most relevant baseline measure that would have been installed (if any) in the absence of the efficiency Program. Installation costs (material and labor) shall be included if there is a difference between the efficient Measure and the baseline measure. The Customer's value of service lost, the Customer's value of their lost amenity, and the Customer's transaction costs shall be included in the TRC Test analysis where a reasonable estimate or proxy of such costs can be easily obtained (e.g., Program Administrator payment to a Customer to reduce load during a demand response event, Program Administrator payment to a Customer as an inducement to give up functioning equipment). This Incremental Cost input in the TRC analysis is not reduced by the amount of any Incentives (any Financial Incentives Paid to Customers or Incentives Paid to Third Parties by a Program Administrator that is intended to reduce the price of the efficient Measure to the Customer). Incremental Cost calculations will vary depending on the type of efficient Measure being implemented, as outlined in the examples provided below and as set forth in the IL-TRM. The Net-to-Gross Ratio is applied to all Incremental Costs in the TRC analysis.

In the above approach, how is the most relevant baseline measure determined and by whom?

Do the assumed installation costs include the age of the structure and the need to repair or upgrade safety for any issues identified or resulting from touching electrical or water systems in a home or building? If not, where is that cost captured and where is it considered, if at all for this cost test framework?

Examples of Incremental Cost calculations include:

- a. The Incremental Cost for an efficient Measure that is installed in **new construction or is being purchased at the time of natural installation, investment, or replacement** is the additional cost incurred to purchase an efficient Measure over and above the cost of the baseline/standard (i.e., less efficient) measure (including any incremental installation or replacement costs if those differ between the efficient Measure and baseline measure).

Following on the comment above, these three installation scenarios may involve very different costs depending on a building's age, type and state of repair or disrepair. How are these differences accounted for in the test?

- b. For a retrofit Measure where the efficiency Program caused the Customer to update their existing equipment, facility, or processes (e.g., air sealing,

¹⁵ The obverse (societal cost increases resulting from NEIs associated with Measures) should also be accounted for should they occur.

insulation, tank wrap, controls), where the Customer would not have otherwise made a purchase, the appropriate baseline is zero expenditure, and the Incremental Cost is the full cost of the new retrofit Measure (including installation costs).

Above, what sources and methods would be used to estimate installation costs based on the installation scenarios presented above?

Below, how would this be determined? Whether or not the customer would not have otherwise made a purchase? Is it evidence based, and if so what evidence would be used to support this conclusion?

- c. For the early replacement of functioning equipment with a new efficient Measure, where the Customer would not have otherwise made a purchase for a number of years, the appropriate baseline is a dual baseline that begins as the existing equipment and shifts to the new standard equipment after the expected remaining useful life of the existing equipment ends. Thus, the Incremental Cost is the full cost of the new efficient Measure (including installation costs) being purchased to replace still-functioning equipment less the present value of the assumed deferred cost (including installation costs) of replacing the existing equipment with a new baseline measure at the end of the existing equipment's life. This deferred credit may not be necessary when the lifetime of the Measure is short, the costs are very low, the Measure is highly Cost-Effective even without the deferred credit, or for other reasons (e.g., certain Direct Install Measures, Measures provided in Kits to Customers).¹⁶

Is there any consideration for affordability and the impact on a customer's bill? Is that appropriate when exploring societal costs and benefits? Why or why not appropriate?

- d. For study-based services (e.g., facility energy audits, energy surveys, energy assessments, retro-commissioning, new construction design services), the Incremental Cost is the full cost of the study-based service. Even if the study-based service is performed entirely by a Program Administrator's Program Implementation Contractor, the full cost of the study-based service charged by the Program Implementation Contractor is the Incremental Cost, because this is assumed to be the cost of the study-based service that would have been incurred by the Customer if the Customer were to have the study-based service performed in the absence of the efficiency Program. If the Customer implements efficient Measures as a result of the study-based service provided by the efficiency Program, the Incremental Cost for those efficient Measures should also be classified as Incremental Costs in the TRC analysis. Note that

¹⁶ In such instances, the Incremental Cost is the full cost of direct installation Measures (materials and labor) and the full cost of Measures provided in Kits to Customers.

the Incremental Costs associated with study-based services should be included in Cost-Effectiveness calculations “only at the level at which they become variable.”¹⁷ In some cases, this will be at the Measure level; in others, it will be at the Program level. Such costs should be included in Measure-level Cost-Effectiveness calculations only when they are inseparable from the efficiency improvements – i.e., when the provision of the study-based service is what produces energy savings (e.g., retro-commissioning). Conversely, when study-based service costs are separable from the costs of the efficient Measures themselves and Customer, Program Administrator and/or other parties have discretion over which of the identified efficient Measures to subsequently install (e.g., for facility energy audits, surveys or assessments that are used to identify potential efficient Measures for installation), the Incremental Cost associated with such study-based services should be included only in Program-level Cost-Effectiveness analyses (rather than allocated to individual efficient Measures).

- e. For the early retirement of functioning equipment before its expected life is over (e.g., Appliance Recycling Programs), the Incremental Costs are composed of the Customer’s value placed on their lost amenity, any Customer transaction costs, and the pickup and recycling cost. The Incremental Costs include the actual cost of the pickup and recycling of the equipment (often paid for by a Program Administrator to a Program Implementation Contractor) because this is assumed to be the cost of recycling the equipment that would have been incurred by the Customer if the Customer were to recycle the equipment on their own in the absence of the efficiency Program. The payment a Program Administrator makes to the Customer serves as a proxy for the value the Customer places on their lost amenity and any Customer transaction costs.

- ix. **Incentives**= Financial Incentives Paid to Customers + Incentives Paid to Third Parties. Because the full incremental cost of Measures is included in TRC cost-effectiveness calculations, incentives whose purpose is to reduce or offset the incremental cost of measures to participants are not included in TRC calculations. As discussed above, incentives paid to customers to offset a loss of service or amenity, rather than to defray incremental costs, can be a proxy for incremental costs.¹⁹

¹⁷ See The National Efficiency Screening Project, National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources, Edition 1, Spring 2017. Retrieved from <https://nationalefficiencyscreening.org/national-standard-practice-manual/>.

¹⁹ The Illinois TRC test requires that “all incremental costs of end use measures (including both utility and participant contributions)” should be reflected as costs in the TRC test calculation. As long as we ensure that “all incremental costs of end-use measures” is included in the TRC test calculation, there is no need to add Program Administrator Contribution costs (i.e., Incentives) and Participant Contribution costs as separate components to the TRC test. However, Program Administrator Contribution costs (i.e., Incentives) are needed for purposes of calculating the Program Administrator Cost Test/Utility Cost Test (PACT/UCT) since those are a component of the Program Administrator expenses. Most TRC modeling software requires users to input the Incentives as a separate input in addition to providing all Incremental Costs such that the PACT/UCT can be calculated; for this reason, the separate Incentives input in the TRC model is not “used” when calculating the TRC test because these costs are already reflected in the Incremental Cost input, and if the model were to use both the Incentives input and the Incremental Cost input, it would result in double counting of costs in the TRC analysis.

- a. **Financial Incentives Paid to Customers** means payment²⁰ made by a Program Administrator directly to an end-use Customer to encourage the Customer to participate in an efficiency Program and offset some or all of the Customer's costs to purchase and install a qualifying efficient Measure, ultimately resulting in a reduction in the net price paid by the Customer for the efficient Measure. This rebate type of Incentive is often referred to as a downstream incentive which has the result that the net price to the Customer of an Energy Efficiency Program-sponsored Measure is reduced by the amount of the Incentive.
- b. **Incentives Paid to Third Parties** means payment made by a Program Administrator to a third party that is principally intended to reduce the net price to the Customer of purchasing and installing a qualifying efficient Measure. Incentives Paid to Third Parties include payments made by a Program Administrator to Trade Allies, manufacturers, wholesalers, distributors, contractors, builders, retailers, Program Implementation Contractors, or other non-Customer stakeholders that are principally intended to defray the Incremental Cost to the Customer of purchasing and installing an efficient Measure. Incentives Paid to Third Parties also includes payment made by a Program Administrator to a Program Implementation Contractor to cover the full cost of direct installation Measures (materials and labor), for the portion not covered by the Customer. Incentives Paid to Third Parties also includes payment made by a Program Administrator to a Program Implementation Contractor to cover the full cost of Measures provided in Kits to Customers, for the portion not covered by the Customer. Incentives Paid to Third Parties also include payment made by a Program Administrator to a third party to cover the full cost of study-based services (e.g., facility energy audits, energy surveys, energy assessments, retro-commissioning, new construction design services), for the portion not covered by the Customer. Incentives Paid to Third Parties also includes payment made by a Program Administrator to a Program Implementation Contractor to cover the cost of pickup and recycling of functioning equipment before its expected life is over (e.g., Appliance Recycling Programs), for the portion not covered by the Customer.
- x. **Non-Incentive Costs** means Program Administrator costs (related to Energy Efficiency) that are not otherwise classified as Financial Incentives Paid to Customers or Incentives Paid to Third Parties (i.e., Program Administrator cost that is not classified as the Program Administrator Contribution to Incremental Costs). The Net-to-Gross Ratio is not applied to Non-Incentive Costs in the TRC analysis.

Non-Incentive Costs = Program Administrator Costs – Incentives, where
Incentives = Financial Incentives Paid to Customers + Incentives Paid to Third Parties, as those terms are defined herein.

²⁰ Payments include non-Measure items of value that would be treated as transfer payments, e.g. gift cards.

Exception: If the amount of Incentives exceeds the amount of Incremental Costs, the Program Administrator may choose to reclassify the amount of Incentives in excess of Incremental Costs as Non-Incentive Costs when performing the TRC analysis.

If $\text{Incentives} > \text{Incremental Costs}$, then $\text{Incentives} - \text{Incremental Costs} = \text{Excess Incentives}$, and these Excess Incentives would be reclassified as Non-Incentive Costs, and Incentives effectively would be set equal to the Incremental Cost amount in the TRC analysis. In this exceptional case, $\text{Non-Incentive Costs} = \text{Program Administrator Costs} - \text{Incentives} + \text{Excess Incentives}$, and for cost-effectiveness modeling purposes, set $\text{Incentives} = \text{Financial Incentives Paid to Customers} + \text{Incentives Paid to Third Parties} - \text{Excess Incentives} = \text{Incremental Costs}$.

Examples of Non-Incentive Costs include:

- a. Costs for overhead and labor and materials required to design, develop, deliver, distribute, implement, process, administer, solicit, contract, manage, verify, evaluate, research, and/or perform functions related to the following: Energy Efficiency rebate processing, field verification, site inspections, quality assurance and quality control activities, direct implementation literature, applications and forms, Energy Efficiency marketing campaigns, media promotions, media production, bill inserts, brochures, door hangers, print advertisements, radio spots, television spots, website, business outreach, Customer outreach, community outreach, Customer relations, education materials, non-Customer specific education and training, Trade Ally training, Energy Efficiency curriculum development, demand response system operation and communication, information technology, and tracking system databases.

[What's the rationale for excluding the costs in a., especially those items or activities that are essential for the installation of measures such as design, field verification, site inspections, and the like?](#)

- b. Program Administrator payment to a third party whose principal purpose is not to reduce the cost of the efficient Measure to the Customer. An example would be a bonus paid to a contractor (SPIFF) for each efficient Measure the contractor sells before the end of the Program Year. This additional bonus payment (SPIFF) to a contractor, to the extent it is not transferred to the Customer in lower prices, does represent a real cost and not a transfer. The purpose of the additional bonus payment (SPIFF) is to increase efficient Measure sales by, among other things, encouraging the contractor to spend additional time promoting the efficient Measure, carry more inventory, train employees, etc. These types of promotions do have real costs. Thus, the amount of the additional bonus payment (SPIFF) is treated as a Non-Incentive Cost because it serves as a reasonable proxy for the cost of additional contractor time and effort spent promoting the efficient Measure.
- c. Program Administrator payment to a third party to cover the cost of services that are principally intended to be a form of marketing, as opposed to being

truly necessary for any Customer implementation of efficient Measures, should be classified as Non-Incentive Costs.

8.5 Discount Rates

All economic analyses for both electric and gas Programs will be conducted using the societal discount rate (DR). A real societal discount rate is used when discounting future dollars that do not include the effects of expected future inflation and are instead expressed in constant year dollars (e.g., in 2019 dollars). A nominal societal discount rate is used when discounting future dollars that are expressed in terms that include the effects of expected future inflation, and represent the actual dollars in that future year (e.g., 2029 nominal dollars) which will be discounted back to a prior year.

The societal discount rate will be fixed for the entirety of each Plan period, and used for all analyses pertaining to that Plan period. That is, the real and/or nominal societal discount rates used in the development of the Program Administrators' multi-year Plans shall also be used for retrospective Cost-Effectiveness analyses of the evaluated results of each of the years in those Plans as well as in the IL-TRM applicable to the years in those Plans. The discount rate used for Energy Efficiency potential studies shall be the rates most recently added to the IL-TRM at the time that economic analysis for the potential studies began. To ensure accuracy and transparency in the application of this policy, all multi-year Plans, retrospective Cost-Effectiveness analyses, annual reports, and potential studies shall include information on the discount rate used.

The societal discount rate used for analyses pertaining to the 2018-2021 Plan cycle will be the discount rate in the 2019 IL-TRM. New discount and inflation rates for subsequent Plan cycles should be added to the IL-TRM as soon as available, and no later than October 1 of the year prior to the Plan filing.

Is use of the 2019 discount rate appropriate given the macro economic changes that have occurred, especially inflation and rising interest rates?

The real societal discount rate shall be based on the average "Daily Treasury Real Yield Curve Rate" for a 10-year bond. The nominal societal discount rate shall be based on the average "Daily Treasury Yield Curve Rate" for a 10-year bond. In both cases, the rates used should be the average of the daily values over the ten (10) calendar years preceding the year in which the IL-TRM is finalized for use when the Program Administrators file their multi-year efficiency Plans (e.g., for all days between January 1, 2010 and December 31, 2019 for the 2022 to 2025 efficiency Plans to be filed in March 2021, where the 2021 IL-TRM is finalized by October 2020).²¹ It is the responsibility of the IL-TRM Administrator to develop proposed changes to the discount rates, based on these data, for each new planning cycle.

²¹ Both the nominal and real 10-year Daily Treasury rates can be found using pull-down menus at: <https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=realyieldAll> (use "all" for the time period to obtain all daily values from which the average over the preceding ten years can be computed).

The IL-TRM shall list both the real and nominal societal discount rates, as well as the corresponding inflation rate. The inflation rate should correspond to the implied rate from the spread of the real and nominal societal discount rates. It should be calculated as: $\text{Inflation Rate} = \{(1 + \text{nominal DR}) / (1 + \text{real DR})\} - 1$. The IL-TRM should also include the following language: “When discounting nominal data that was adjusted to nominal from original real data using an inflation rate that is different than the IL-TRM inflation rate value, the analyst should first adjust for inflation using the original (non-IL-TRM) value to convert the data back to the appropriate year’s real dollars and then use the real discount rate as specified in the IL-TRM.” All prior discount rate and inflation rate information should remain in the IL-TRM as a reference to support any analysis of historic data for which the newest discount rate assumptions would not be appropriate.

[Great that those rates will be listed!](#)