

Starting point for ZEC formula

(\$/MWh)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Zone A Forecast:	\$34.58	\$41.76	\$44.28	\$46.54	\$48.35	\$50.52	\$54.04	\$57.64	\$59.14	\$59.00	\$59.29
Capacity Price Forecast:	\$4.80	\$4.88	\$5.06	\$5.38	\$5.71	\$5.99	\$6.30	\$6.72	\$7.06	\$7.39	\$7.72
Total Wholesale Market Forecast:	\$39.38	\$46.64	\$49.34	\$51.92	\$54.06	\$56.51	\$60.34	\$64.36	\$66.20	\$66.39	\$67.01
		\$39.38		\$45.92		\$50.15		\$56.48		\$59.09	
		\$4.87		\$5.30		\$5.92		\$6.61		\$7.31	
		\$44.26		\$51.22		\$56.07		\$63.08		\$66.39	
		Tranche 2 Forecast		Tranche 3 Forecast		Tranche 4 Forecast		Tranche 5 Forecast		Tranche 6 Forecast	
	ZEC Cost Before Adjustment	Energy & Capacity Forecast Adjustment	Final Upstate ZEC Cost Per MWh	Upstate ZEC Quantity	Annual Upstate ZEC Payment	Total Tranche ZEC Payment					
Tranche 1 (4/1/17-3/31/19)	\$17.48	N/A	\$17.48	27,618,002	\$482,762,675	\$965,525,350					
Tranche 2 (4/1/19-3/31/21)	\$19.59	\$5.26	\$14.33	27,618,002	\$395,847,578	\$791,695,156					
Tranche 3 (4/1/21-3/31/23)	\$21.38	\$12.22	\$9.16	27,618,002	\$252,986,059	\$505,972,117					
Tranche 4 (4/1/23-3/31/25)	\$23.83	\$17.07	\$6.76	27,618,002	\$186,650,217	\$373,300,434					
Tranche 5 (4/1/25-3/31/27)	\$26.45	\$24.08	\$2.37	27,618,002	\$65,411,147	\$130,822,294					
Tranche 6 (4/1/27-3/31/29)	\$29.15	\$27.39	\$1.76	27,618,002	\$48,528,028	\$97,056,056					
					Total Upstate ZEC Program Cost Estimate:	\$2,864,371,407					

ZEC Formula

ZEC Price = Social Cost of Carbon - Baseline RGGI Effect - Amount Zone A (Western Zone) Forecast Energy Price and Rest of State Forecast Capacity Price (combined) exceeds \$39/MWh

Chart Explainer: The ZEC price formula, which is described in detail in the PSC's CES order, takes into account the Social Cost of Carbon (SCC), subtracts the cost of carbon already reflected in the RGGI cap and trade program, and is adjusted every two years to reflect changes in electric price forecasts (wholesale energy and capacity). The wholesale energy forecast is using the conservative "Low Revenue" forecast from the 4/8/16 CES Cost Study. The capacity price forecast is a much lower one than had been used in the CES Cost Study, and reflects the continued operation of the Ginna and FitzPatrick nuclear plants. The annual energy and capacity price forecasts are then turned into an average amount per Tranche. For instance, in Tranche 2, the average wholesale market price for 4/1/19-3/31/21 is \$39.38 and the average ROS capacity price is \$4.87, for a combined forecast of \$44.26 for the two years of the Tranche. This amount is \$5.26 above the \$39.00 assumed at the time of the CES Order (and used in the ZEC price calculation). Therefore, the maximum ZEC cost for Tranche 2 per the Order (\$19.59) would be reduced by \$5.26. This results in a final ZEC price for the Tranche of \$14.33. As the energy and capacity prices are forecast to increase, ZEC prices are forecasted to steadily fall from \$17.48 per MWh today to \$1.76 per MWh in 2027. If these forecasts were to be what actually occurs, the total ZEC cost over the 12-year period will be approximately \$2.9 billion.