

## 2011-2012 Chiller Rebate

### Section A: CUSTOMER INFORMATION

Customer Name	Electric Account Number	Rate	Application Number
Facility Address	City	State	Zip Code
Service Location Identification			
Mailing Address (if different from above)	City	State	Zip Code
Contact Person/Title	Telephone Number	Incorporated? (Check one) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Exempt	
Please Assign Payment to Contractor Customer Signature	Rebate Payment Preference (Check one) <input type="checkbox"/> Check <input type="checkbox"/> Bill Credit <input type="checkbox"/> Pay Contractor		

### Section B: CONTRACTOR INFORMATION

Contractor Name	Contact Person/Title (Print)	Telephone Number	
Mailing Address	City	State	Zip Code
Contact Person Signature	Incorporated? (Check one) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Exempt		

### Section C: DOCUMENT APPROVALS

#### PRE-INSTALLATION INSPECTION

Utility Signature	Date
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#### PRE-APPROVAL OFFER

Technical Review - Utility Signature	Date		
Utility Signature	Date	Amount of Rebate Offer (\$)	Completion Date

By signing and dating below, customer accepts this rebate offer and agrees to the Utility Terms and Conditions attached hereto. Pursuant to a Commission order, customer also agrees that the utility will capture all kW and kWh savings and to forgo applying directly or indirectly for any ISO-NE capacity payments resulting from this energy efficiency project. This agreement is contingent upon continued approval and authorization by the Commission to recover said amounts from the System Benefits Charge. The rebate, in conjunction with all other sources of funding, cannot exceed the total project cost.

Customer Signature \_\_\_\_\_ Date \_\_\_\_\_

#### POST-INSTALLATION INSPECTION

Utility Signature	Date	Total Project Cost (\$)	Amount of Rebate (\$)
Customer Signature	Date		

#### MANAGEMENT APPROVAL

Utility Signature	Date
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# NE&C CHILLER REBATE WORKSHEET

Eligibility Requirements		Proposed Equipment		Rebates				
Unit Size ARI Net Tons (A)	Minimum Performance Requirements, FL or IPLV (B)	Net Tons (C)	Proposed Efficiency (D)	Base Rebate (per ton) (E)	Base Rebate Total (F)	Performance Rebate per ton (Max of 2 times base rebate) (G)	Performance Rebate Total (H)	Total Rebate (F+H) (I)
<b>Air Cooled Chillers</b>								
< 150 tons	EER: FL: 10.6 IPLV: 13.9	_____	_____	\$25.00	\$_____	\$4.00	\$_____	\$_____
≥ 150 tons	FL: 10.6 IPLV: 14.1	_____	_____	\$20.00	\$_____	\$3.00	\$_____	\$_____
<b>Water Cooled Chillers-Rotary Screw &amp; Scroll</b>								
< 75 tons	kW/ton: FL: 0.702 IPLV: 0.540	_____	_____	\$17.00	\$_____	\$4.00	\$_____	\$_____
≥ 75 and < 150 tons	FL: 0.697 IPLV: 0.527	_____	_____	\$13.00	\$_____	\$3.00	\$_____	\$_____
≥ 150 and < 300 tons	FL: 0.612 IPLV: 0.486	_____	_____	\$11.00	\$_____	\$3.00	\$_____	\$_____
≥ 300 tons	FL: 0.558 IPLV: 0.441	_____	_____	\$18.00	\$_____	\$3.00	\$_____	\$_____
<b>Water Cooled Chillers-Centrifugal</b>								
< 150 tons	kW/ton: FL: 0.570 IPLV: 0.405	_____	_____	\$20.00	\$_____	\$4.00	\$_____	\$_____
≥ 150 and < 300 tons	FL: 0.570 IPLV: 0.405	_____	_____	\$17.00	\$_____	\$3.00	\$_____	\$_____
≥ 300 and < 600 tons	FL: 0.518 IPLV: 0.360	_____	_____	\$15.00	\$_____	\$2.00	\$_____	\$_____
≥ 600 tons	FL: 0.513 IPLV: 0.360	_____	_____	\$12.00	\$_____	\$2.00	\$_____	\$_____

## Rebate Calculations:

1. This rebate is available only for **comfort cooling applications** operating for min. 800 equivalent full load hours (EFLH) or 1500 run hours. Process chillers or chillers equipped with variable speed drives may be evaluated as a custom rebate.
2. Proposed comfort cooling chiller shall meet or exceed the FL or IPLV efficiencies as listed in above table (B).
3. Chiller equipment efficiency criteria are based on ARI Standard 550/590-98 at ARI standard conditions (see note 6) using a non-CFC refrigerant. Attach copy of manufacturer's performance sheet showing both Full Load (FL) and Integrated Part Load Value (IPLV) efficiencies (KW/ton). Air cooled chiller efficiencies shall include condenser fan energy consumption. **Tons should be ARI net capacity, not gross capacity.** Rebates for chillers shall be calculated using FL and IPLV efficiency ratings.
4. The total rebate (I) for air cooled chiller projects with efficiencies based on EER is calculated as follows:  
 $H = \text{base rebate } (C \times E) \text{ and performance rebate (using either FL or IPLV EER): } (D-B) / 0.1 \times C \times G$  (performance rebate is for each 0.1 EER point above minimum criteria and may not exceed twice the base rebate)
5. The total rebate (I) for water cooled chiller projects with efficiencies based on kW / ton is calculated as follows:  
 $H = \text{base rebate } (C \times E) \text{ and performance rebate (using FL or IPLV kW/ ton): } (B-D) / 0.01 \times C \times G$  (performance rebate is for each 0.01 KW/ton below maximum criteria and may not exceed twice the base rebate)
6. All water-cooled chillers shall incorporate condenser water reset strategy.
7. ARI Chiller standard 550/590-98 conditions are as follows:
  - 44° F leaving chiller water
  - 2.4 GPM / ton
  - 95° F entering condenser air temperature (air cooled only)
  - 85° F entering condenser water temperature (water cooled only)
  - 3.0 GPM / ton condenser water flow rate (water cooled only)
8. Chillers with VFD's shall have a minimum 3% impedance reactor in its AC power input connection.