



State of New Hampshire  
Public Utilities Commission

21 S. Fruit Street, Suite 10, Concord, NH 03301-2429



APPLICATION TO QUALIFY AS AN INDEPENDENT MONITOR

**TO VERIFY ELECTRICITY OR USEFUL THERMAL ENERGY PRODUCTION FROM ELIGIBLE CUSTOMER-SITED SOURCES\***

This independent monitor application must be filed with the Executive Director of the New Hampshire Public Utilities Commission (Commission). *The completed original application, as well as two copies and a cover letter requesting certification should be sent to:*

Debra Howland  
Executive Director  
State of New Hampshire  
Public Utilities Commission  
21 S. Fruit St, Suite 10  
Concord, NH 03301-2429

*An electronic version of the docket filing should be submitted to [executive.director@puc.nh.gov](mailto:executive.director@puc.nh.gov) and [barbara.bernstein@puc.nh.gov](mailto:barbara.bernstein@puc.nh.gov). Contact Barbara Bernstein by email or phone 603-271-6011 with questions.*

***Any omissions and/or deficiencies which need to be corrected must be completed in a timely manner or the Commission may close the application process without prejudice.\*\****

***Please complete the following:***

Applicant Name:	Anton Kaeslin			
Business Name:	Solar Data Systems, Inc. (Solar-Log)			
Mailing Address 1:	23 Francis J. Clarke Circle			
Mailing Address 2:	STE 4A			
Town/ City:	Bethel	State:	CT	Zip Code: 06801
Telephone:	203.702.7189	Cell:		
email	<a href="mailto:a.kaeslin@solar-log.com">a.kaeslin@solar-log.com</a> & <a href="mailto:s.condon@solar-log.com">s.condon@solar-log.com</a>			

*AK*

<b>2505.09</b>	<b>Independent Monitors</b>
2505.09(a) **	An independent monitor shall verify the <u>electricity</u> production of a customer-sited source or the production of <u>useful thermal energy</u> from an eligible source and report such production and REC calculation to the GIS.
2505.09(b)	A distribution utility shall be eligible to serve as an independent monitor for customer-sited sources and sources producing useful thermal energy within its service territory, provided that the distribution utility employs one or more persons to perform monitoring tasks who meet the qualifications specified in paragraph (c) or (d). (See below).

As **ATTACHMENT A**, please provide a copy of the license issued by the state of New Hampshire or such other qualifying certification as may be applicable.

<b>Electrical Production Independent Monitors</b>		
2505.09(c)	To qualify as an independent monitor who verifies <b>electrical production</b> please indicate which of the following apply to the applicant:	
2505.09(c)(1)	An electrician licensed by the state of New Hampshire and in good standing.	<input type="checkbox"/>
2505.09(c)(2)	A professional engineer licensed by the state of New Hampshire and in good standing.	<input type="checkbox"/>
2505.09(c)(3)	A certified building analyst professional or a certified mechanical professional as certified by the Building Performance Institute, Inc. of Malta, New York.	<input type="checkbox"/>
2505.09(c)(4)	A certified energy manager as certified by the Association of Energy Engineers.	<input type="checkbox"/>
2505.09(c)(5)	A home energy rater as certified by Residential Energy Services Network (RESNET)	<input type="checkbox"/>
2505.09(c)(6)	Certified as an independent monitor under a renewable portfolio standard program in another state.	<input checked="" type="checkbox"/>

<b>Useful Thermal Energy Independent Monitors</b>		
2505.09(d)	To qualify as an independent monitor who verifies <b>useful thermal energy production</b> please indicate which of the following apply to the applicant:	
2505.09(d)(1)	A professional engineer licensed by the State of NH and in good standing.	<input type="checkbox"/>
2505.09(d)(2)	<b>For verification of useful thermal energy from solar thermal sources</b> , a North American Board of Certified Energy Practitioners (NABCEP) Certified Solar Heating Installer	<input type="checkbox"/>
2505.09(d)(3)	<b>For verification of useful thermal energy from geothermal sources</b> an International Ground Source Heat Pump Association (IGSHPA) Accredited Geothermal Installer	<input type="checkbox"/>

Provide your initials as an indication that you have read the following as it pertains to Independent Monitors and agree to uphold the rule.

**Initials**

2505.09(a)	An independent monitor shall verify the production of a customer-sited source or the production of useful thermal energy from an eligible source and report such production and REC calculations to the GIS. Such a customer-sited source or a source producing useful thermal energy shall either retain the services of an independent monitor directly or, if participating in aggregation pursuant to Puc 2506, through an aggregator.	AK
2505.09(b)	A distribution utility that is a distribution company shall be eligible to serve as an independent monitor for customer-sited sources and sources producing useful thermal energy within its service territory, provided that the distribution utility employs one or more persons to perform monitoring tasks who meet the qualifications specified in paragraph (c) or (d).	AK
2505.09(g) **	No customer-sited source or source producing useful thermal energy shall use an independent monitor: <ul style="list-style-type: none"> <li>• who is a member of the immediate family of the owner of the source, or,</li> <li>• who holds a direct or indirect ownership interest in the source, or,</li> <li>• who sold or installed the equipment used by the source.</li> </ul>	AK
2505.09(h)	The fact that a provider of electricity installed the customer-sited source or source producing useful thermal energy shall not be a disqualifying relationship.	AK
2505.09(i)	<i>The duties of the independent monitor shall be:</i>	<b>Initials</b>
2505.09(i)(1) **	To perform an initial inspection of source's meter for accuracy and capability to measure the electricity or useful thermal energy produced, unless the meter is owned by a distribution utility that has already inspected it pursuant to <u>Puc 305</u> .	AK
2505.09(i)(2)	To measure quarterly the source's electricity or useful thermal energy production or displacement used to qualify for certificates pursuant to the GIS operating rules.	AK
2505.09(i)(3)	To report the production of electricity or useful thermal energy from the source and the REC calculation to the customer and the GIS quarterly in accordance with the GIS operating rules.	AK
2505.09(j)	An independent monitor shall not receive compensation for monitoring services that is a function of the number of certificates issued to any source using the independent monitor.	AK
2505.09(k)	An independent monitor shall provide the commission with the notice prior to discontinuing services as a monitor.	AK

Describe your rates for Renewable Energy Source Eligibility for Independent Monitoring (add lines as needed).

Description:	Unit	Rate
Solar Data Systems, Inc. (Solar-Log) currently provides Independent Monitoring Services free of charge with the purchase of Solar Data Systems revenue grade logging hardware and software. Solar Data Systems currently supports more than 500 plants as an Independent Monitoring Service reporting for SRECs in MA, NJ, PA, MD, OH and RECs with the NE POOL GIS.		
	Per hour	\$ n/a
	Flat fee	\$n/a
	Annual	\$n/a

**AFFIDAVIT**

The undersigned applicant declares under penalty of perjury that contents of this application are accurate.

Applicant's Signature *Anton Kaeslin* Date 6/3/16

Applicant's Typed Name Anton Kaeslin

Subscribed and sworn before me this 3<sup>rd</sup> Day of June (month) in the year 2016

County of Fairfield State of Connecticut

*Kelly Lavelle*  
Notary Public/Justice of the Peace

My Commission Expires \_\_\_\_\_



Solar Data Systems, Inc.  
23 Francis J. Clarke Circle  
Suite 4A  
Bethel, CT 06801



May 26, 2016

Debra Howland  
Executive Director, NHPUC

21 South Fruit St. Suite 10  
Concord, NH 03301

Dear Ms. Howland,

On behalf of Solar Data Systems, Inc., and with reference to REC 16-474 I am writing to request a rule waiver for the following:

1. Puc 2505.09(i)(1): To perform an initial inspection of the source's meters for accuracy and capability to measure the electricity or useful thermal energy produced, unless the meter is owned by a distribution utility that has already inspected it pursuant to Puc 305;
  - a. As previously requested in filed document "Solar Data Systems, Inc. Request for Rule Waver", compliance with the rule would be onerous or inapplicable given our circumstances. Solar-Log & GE Meters are ANSI C12.20 certified,  $\pm 0.2\%$  accuracy, revenue grade meters. They are installed at the same time as other solar PV equipment including PV panels and inverters, specifically for remote monitoring. They provide automatic, accurate reporting to third parties who are not typically on-site at the time of installation. Therefore, in general it would be inapplicable for our company to do this type of on-site inspection when the installation context often does not offer physical access by a third party. Solar-Log technical support can be available by phone if an installer has a question about meter data validation in the course of installation.
  - b. Additionally, the intention of the Solar-Log & GE Meters is to reduce installation and hardware cost by providing an ANSI certified revenue grade meter with remote access for monitoring and reporting. Requiring an "initial inspection of the source's meters for accuracy and capability to measure the electricity" would be a significant added cost to the installer and end user driving the cost of the solar PV system up.
  
2. Puc 2505.09(g): No customer-sited source or source producing useful thermal energy shall use an independent monitor who is a member of the immediate family of the owner of the source, holds a direct or indirect ownership interest in the source, or who sold or installed the renewable energy system and associated equipment.
  - a. Solar-Log & GE Meters are the GE i210+ revenue grade meter manufactured independent of Solar-Log, ANSI 12.20 certified and deployed globally for the use of utility electric meters on our homes and businesses. Solar Data Systems adds an AMI board with cellular and Local Area Network communication to transmit the meter data to the Solar-Log servers for accurate monitoring and reporting to varying agencies.
  - b. Currently Solar-Log is approved for reporting to NE POOL GIS, PTS, GATS, CSI, NYCERDA and CT Green Bank for RECs and performance based PV incentives.
  - c. Solar Data Systems reports yield data from the Solar-Log & GE meters as an independent agent from its customer base (installers and home owners). Solar Data

Solar Data Systems, Inc.  
23 Francis J. Clarke Circle  
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Bethel, CT 06801



- Systems has a vested interest in meter reporting and data accuracy which creates independence from the vested interest that the installers and home owners may have.
3. Puc 2505.09(a): An independent monitor shall verify the electricity production of a customer-sited source or the production of useful thermal energy from an eligible source and report such production and REC calculation to the GIS. A customer-sited source or a source producing useful thermal energy shall retain the services of an independent monitor directly.
    - a. Because the Solar-Log & GE Meters is electrical equipment requiring an electrician for installation, the Solar Data Systems "Customer" is normally a certified PV installer or Electrician.
    - b. IM services purchased through Solar Data Systems are retained directly by the Home Owner (end user). The installer purchases the Solar-Log & GE Meter hardware and software from Solar Data Systems on behalf of the Home Owner for the services of monitoring and reporting to the NE POOL GIS for REC calculation. All transactions are made on behalf of the Home Owner.
    - c. At the end of the initial reporting services purchased, the Home Owner can purchase additional NE POOL GIS reporting services for REC calculation directly from Solar Data Systems if they prefer not to go through their original installer or if their original installer is no longer in business.

Thank you for your time and consideration. Please don't hesitate to get in touch at any time.

Sincerely,

A handwritten signature in blue ink, appearing to read "Anton Kaeslin".

Anton Kaeslin  
President  
Solar Data Systems, Inc.

April 29, 2016

Barbara Bernstein  
Sustainable Energy Division  
State of New Hampshire Public Utility Commission  
21 S. Fruit Street, Suite 10  
Concord, NH 03301-2729

RE: Request for rule waiver for the 2505.09 (i)(1) on-site inspection requirement 201.05

Dear Ms. Bernstein,

On behalf of Solar Data Systems, Inc., I am writing to request a rule waiver for 2505.09 (i)(1) on-site inspection requirement for the reasons stated below.

(1) Compliance with the rule would be onerous or inapplicable given our circumstances

Solar-Log® & GE Meters are ANSI C12.20 certified, +/- 0.2% accuracy, revenue grade meters. They are installed at the same time as other solar PV equipment including PV panels and inverters, specifically for remote monitoring. They provide automatic, accurate reporting to third parties who are not typically on-site at the time of installation. Therefore, in general it would be inapplicable for our company to do this type of on-site inspection when the installation context often does not offer physical access by a third party. Solar-Log® technical support can be available by phone if an installer has a question about meter data validation in the course of installation.

(2) The purpose of the rule would be satisfied by alternative methods we are prepared to implement

Our understanding is that the purpose of this rule is to *ensure that the REC meter for every customer-sited source of renewable energy is accurate*. We also understand that the on-site inspection is intended to *confirm that the REC meter has been installed properly to verify that the data provided to the NEPOOL-GIS will be accurate*. Our company has the ability to accomplish these assurances through electronic communication without doing an onsite inspection

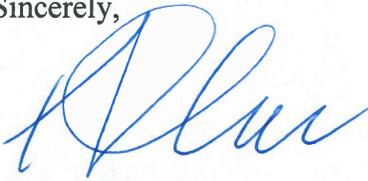
The Solar-Log & GE Meters will begin reporting to the Solar-Log WEB online application through cellular or LAN connection once they are installed. We are assured of proper installation once the meter appears in the Solar-Log WEB portal and begins reporting.

We are able to continually conduct reasonable data validation through multiple options. We can compare the power generation reported by the revenue-grade meter with the expected power generation through satellite weather data, through plant clustering, or through inverter direct monitoring.

Employing these approaches, we believe Solar-Log<sup>®</sup> can accurately fulfill its requirements as an independent verifier for New Hampshire without making on-site inspections.

Thank you for your time and consideration. Please don't hesitate to get in touch at any time.

Sincerely,



Anton Kaeslin  
President  
Solar Data Systems, Inc.