UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF RHODE ISLAND

CHARLES PLACE ASSOCIATES, Plaintiff,	)	
v.	)	CA No. 09-535 M
CARRIER CORPORATION, Individually and doing business as "CARRIER COMMERCIAL SERVICE, a Division of Carrier Corporation," Defendant.	)	

DECISION AND ORDER

JOHN J. McCONNELL, JR, United States District Court Judge.

Plaintiff Charles Place Associates ("Charles Place") brings this breach of contract action seeking damages and injunctive relief. Charles Place seeks to enforce a May 15, 2009 settlement agreement (the "Settlement Agreement") arising from a prior action, *Charles Place Associates v. Carrier Corp. et al.*, CA No. 07-368 S (the "Prior Action"). Charles Place contends that Carrier has failed to perform Paragraphs Two, Three, and Six of the Settlement Agreement and has asked this Court to enforce that agreement and to award compensatory damages for increased costs and expenses attributable to this alleged breach. This action was tried by this Court sitting without a jury and the parties have submitted post-trial memoranda. This Court's findings of fact and conclusions of law are set forth below.

This Court has original jurisdiction over this action pursuant to 28 U.S.C. § 1332 because the amount in controversy in this civil action exceeds the value of $75,000.00 and is between citizens of different states.

I. FACTS

After presiding over a three day bench trial, hearing testimony from five witnesses, and admitting 9 exhibits, this Court makes the following findings of fact.

Plaintiff Charles Place owns and operates a facility for low income elderly and disabled residents. This building (the Property), up until Charles Place contracted with Carrier, relied on the local electric company (the "Grid") for electricity. Charles Place sought out Carrier in order to install a system that would allow them to operate independently of the Grid. This system provides for both the electrical and the HVAC needs of the Property using a series of co-generation turbines (the "Turbine Farm"). Since the turbines provide both the heat and the electricity for the property they are considerably more energy efficient than a conventional energy solution would be. The purpose of the co-generation Turbine Farm is to save on energy costs by allowing the Property to operate as an "island" from the Grid -- meaning that the Property will pull zero electricity from the Grid and will be entirely self-sufficient.

When the Turbine Farm was first installed at the Property, it was unreliable. Six turbines were set up in an array that was controlled by a computer in the first turbine. This computer would calculate the electrical draw from the Property and decide which turbines to turn on in order to meet that demand. The problem with this arrangement was that if the first turbine failed for any reason, then the entire system would fail because the computer would stop controlling the Turbine Farm. With no direction from the first turbine, the other turbines would generate no electricity and would shut off. When the Turbine Farm stops producing electricity, the entire Property blacks out and no electricity is available to any of the residents until either emergency generators are turned on or the Turbine Farm is brought back online.

This fatal flaw gave rise to the Prior Action and ultimately to the Settlement Agreement that resolved that dispute. At issue in the present action is Carrier's alleged failure to perform their duties under the Settlement Agreement. Charles Place contends that Carrier has violated three conditions in the Settlement Agreement (Paragraphs Two, Three, and Six). Paragraph Two requires that an advanced power server (APS 115) be installed at the Property. Paragraph Three stipulates that the Turbine Farm shall be reduced from six to four turbines, and that software shall be installed that will allow the turbines to operate in a "sequential manner." Paragraph Six requires additional fan coils to be installed at the Turbine Farm for cooling purposes.

A. PARAGRAPH TWO: The APS 115

Charles Place contends that Carrier has failed to install an APS 115 power server to control the Turbine Farm at the Property in accordance with Paragraph Two of the Settlement Agreement that states, "Carrier Corporation shall install an APS 115 Advanced Power Server at the Property". (ECF No. 1.) The purpose of this requirement was to replace the problematic computer in the first turbine. The APS 115 was to sit outside of the turbines so that a turbine failure would not blackout the building. The APS 115 was intended to serve as the head of the beast: it would control the four turbine array, determine how many turbines needed to be powered on in order to meet the electrical requirements of the Property, and would prevent system blackouts.

Carrier did not install an APS 115 at the Property but instead Carrier did install and commission an APS 145 Advanced Power Server at the Property during April, 2010. The APS 145 is of equal or greater capacity than the APS 115 and can perform every function that the APS 115 can perform and more. The only difference between the two units is that the APS 115 can control a turbine farm of 115 turbines while the APS 145 can control a turbine farm of 145

turbines. The APS 115 was not installed because the product was phased out in favor of the newer APS 145.

When the APS 145 was installed, the internal computer in turbine number one was no longer needed. The APS 145 commissioned in April, 2010 in order to reduce the Turbine Farm from six to four turbines. The APS 145 was also programmed to operate the turbines in the Maximum Efficiency Mode.

Because there is no perceivable difference between the APS 145 and the APS 115, and because the former has even greater capabilities than the latter, this Court finds that the installation of the APS 145 was not a material breach of Paragraph Two of the Agreement because it neither caused harm nor impaired the benefit of the contract whatsoever.

B. PARAGRAPH THREE: SEQUENTIAL MANNER

1) Spinning Reserve

When the APS calculates which turbines to turn on, it considers two primary variables: the electrical draw coming from the Property at any given moment and the "Spinning Reserve." The electrical draw is a simple calculation: it is the sum of all the electricity currently being used at the Property. The Spinning Reserve, as explained below, is more complicated.

If the amount of electricity needed by the Property is greater than maximum amount of electricity that the Turbine Farm can generate, then the turbines get overloaded and shut down. When the Turbine Farm shuts down, the Property blacks out and no electricity is available to the tenants until backup generators are started or the Turbine Farm is restored. When the APS 145 was installed it was programmed to turn on only as many turbines as were necessary to power the Property. However, when a turbine is off, it has to warm up for a few minutes before it can start generating power. So, if the electrical draw from the building fluctuates or spikes suddenly,

it can overload the available turbines and blackout the Property before an additional turbine is able to come online and power-up.

For example, if the Property is drawing 62 kilowatts the APS would read that and turn on two turbines (each with a maximum capacity of 60kw). However, if all three elevators in the building were operated at the same time and a number of residents were to turn on appliances in their apartments within the same timeframe, then the electrical draw could jump. If the electrical draw from the Property were to jump 59kw, then the total draw would be 121kw, which is greater than the maximum capacity of the two turbines. If such a spike occurred suddenly, then it would overload the Turbine Farm and blackout the Property because an additional turbine would not be able to power-on in time to meet the increased electrical demand.

In order to combat such a situation, the APS is programmed with a Spinning Reserve. The Spinning Reserve works as a buffer in the APS's calculations. When the Spinning Reserve is set, the APS determines how many turbines are required by taking the current electrical draw from the Property and adding a certain designated amount to its calculations. So, in the above example, when the Property is drawing 62kw, for the purposes of determining the number of turbines required, the APS would add the Spinning Reserve number to the electrical draw number. For this example, if the Spinning Reserve is set at 60kw and the electrical draw from the building is 62kw, the APS would act as though the amount of electricity needed was 62kw, plus the 60kw Spinning Reserve, for a total load of 122kw anticipated by the APS. If each turbine is capable of generating 60kw, then three turbines would be required to generate the 122kw load anticipated by the APS, and so the APS would turn three turbines on accordingly.

Continuing with this example, three turbines would be on and ready to produce electricity. The electrical load required is still 62kw, so the third turbine is serving as a buffer in

the event the electrical draw from the Property spikes. If the load were to spike by 59kw or more, then the third turbine would be ready to absorb the increase and there would be no blackout of the Property. In contrast, without a Spinning Reserve programmed into the APS, the system and the Property would have gone offline.

2) Parasitic Load

Besides the draw from the Property and the Spinning Reserve, there is a third variable in the calculation of the number of turbines necessary to power the Property. This third variable is the amount of electricity used to power "Parasitic Loads." A Parasitic Load is an electrical draw that occurs somewhere between the turbine and the Property. For example, each turbine has a battery that allows it to operate. In order to keep the batteries ready, a certain amount of electricity is diverted from the turbine to charge its battery. If a turbine was generating 60kw, then the amount of electricity actually supplied to the Property would be 60kw minus the sum of all the Parasitic Loads. In calculating the number to be used as the Spinning Reserve in the APS, these various inefficiencies are totaled and added to the maximum anticipated load spike from the Property.

The Spinning Reserve in the APS 145 at the Property is set at 125kw. This means that when the APS calculates how many turbines are required to be kept on, 125kw is added to the current electrical draw from the Property in order to account for any sudden spikes in the electrical draw from the Property as well as the sum of all of the parasitic loads from each turbine in the Turbine Farm.

3) Sequential Manner

The core of Charles Place's argument alleging a breach of Paragraph Three of the Settlement Agreement is that Carrier failed to perform the conditions stipulated in Paragraph Three of the Agreement because they failed to install software that would allow the turbines to operate in a "sequential manner." Paragraph Three of the Settlement Agreement stipulates that: "Carrier Corporation shall install software for the turbines that would allow the turbines to operate in a sequential manner and shall reduce the system to four turbines." (ECF No. 1 at ¶ 3.) The software referred to in Paragraph Three is the software configured on the APS that controls which turbines are turned on and how they cooperate in order to produce the amount of electricity required by the Property. The turbines are turned on in order and therefore operate in a sequential manner; only the number of turbines needed to power the Property consistently and reliably are kept on.

The APS at the Property is programmed to operate the Turbine Farm in the maximum efficiency mode. In the maximum efficiency mode, the turbines power on sequentially. For example, if the required electrical load plus the Spinning Reserve (which anticipates the sum of the Parasitic Loads) is calculated to be 50kw by the APS, the APS will turn on only one turbine. If the calculated required load increases to over 60kw (the maximum capability of a single turbine), then the APS will turn on the second turbine and will continue to do so as the load continues to increase. The maximum efficiency mode saves power because it does not keep all four turbines in the Turbine Farm running all the time unless necessary.

Charles Place has brought the present action because all four turbines in the Turbine Farm are all on 100% of the time. However, this occurs even though the turbines operate in sequential manner. As long as the electrical draw from the Property is over 56kw, then the APS

will calculate that it needs to be able to immediately supply 181kw to the Property (125kw Spinning Reserve + 56kw draw). In this scenario, all four turbines are consistently observed to be running because the electrical draw from the Property has never been observed below 56kw. In order to maintain the capability to produce 181kw at a moment's notice, the APS must run four turbines at once.

Paragraph Three of the Settlement Agreement stipulates that "Carrier Corporation shall install software for the turbines that would *allow* the turbines to operate in a sequential manner . . . ." (Emphasis added). Carrier has fulfilled its obligation to provide software that allows the turbines to operate in a sequential manner because were the electrical draw from the turbines to drop below 55kw, the APS would only need three turbines to be able to generate the 179kw load required. The fourth turbine would shut off and only come back on when the sum of the electrical draw from the Property and the Spinning Reserve was over 180kw. That situation has never been observed at the Property because the electrical draw from the Property is consistently over 56kw. The fact that four turbines are running consistently has nothing to do with whether or not the software in the APS allows them to run in a sequential manner. The software *does* allow the four turbines to run in a sequential manner. The four turbines are always running because four turbines are consistently required to provide adequate power to the Property and avoid a blackout. Accordingly, This Court finds that Carrier fully performed its duties under Paragraph Three of the Agreement by installing software that allows the turbines to operate in a sequential manner and by reducing the total number of turbines active in the Turbine Farm from six to four.

C. PARAGRAPH SIX: FAN COIL UNIT

Paragraph Six of the Settlement Agreement stipulates that "Carrier Corporation shall make modifications to the starter and/or pumps to allow them to operate without the need for supplemental window air conditioners, or in the alternative . . . will either install additional exhaust ventilation or fan coil unit(s) to replace the window air conditioner unit in the turbine building." (ECF No. 1.) Carrier fulfilled its duties under Paragraph Six of the Agreement when it installed the necessary fan coil unit prior to December 15, 2009.

II. APPLICATION OF LAW

In the sole count in the present action Charles Place seeks compensatory damages from what they allege to be a material breach of the Settlement Agreement they reached with Carrier Corporation.[1] After evaluating Charles Place's allegations, this Court finds that Carrier performed all of its duties and obligations under the 2009 Settlement Agreement and therefore they did not breach it.

The substantive law of Rhode Island governs in this case. "Under Rhode Island law, a contracting party may . . . seek damages if the other contracting party commits a breach that is 'material' "or that 'goes to the essence of the contract.'" *Gibson v. City of Cranston*, 37 F.3d 731 (1st Cir. 1994) (quoting *Aiello Constr., Inc. v. Nationwide Tractor Trailer Training & Placement Corp.*, 122 R.I. 861 (1980)). "To succeed on a breach of contract claim under Rhode Island law, a plaintiff must prove that (1) an agreement existed between the parties, (2) the defendant breached the agreement, and (3) the breach caused (4) damages to the plaintiff." *Barkan v. Dunkin' Donuts Inc.*, 627 F.3d 34, 39 (1st Cir. 2010) (quoting *Petrarca v. Fid. & Cas.*

[1] Plaintiff's Amended Complaint originally alleged four counts against the Defendant. This Court dismissed Count II upon the parties' joint stipulation. (ECF No. 64.) This Court dismissed Counts III and IV during trial on Defendant's Motion to Dismiss as a matter of law. Trial Tr. at 136:4-5, 140:10-11 (05/14/2013).

Ins. Co., 884 A.2d 406, 410 (R.I. 2005). Under Rhode Island law a breach has caused damages when the "breach caused harm or significantly impaired the benefit of the contract." *Reyelt v. Danzell*, 533 F.3d 28, 32 (1st Cir. 2008).

It is without dispute in this matter that an agreement existed between the parties, what was in dispute is whether Carrier breached that 2009 Settlement Agreement. This Court finds, as a factual matter, that Carrier fully performed its duties as to all Paragraphs of the Settlement Agreement as established by this Court's findings of fact above; therefore, there was no breach as to those sections of the Settlement Agreement.

III. CONCLUSION

This Court finds as a matter of fact and as a matter of law, that Charles Place has failed to prove its case, and therefore finds in favor of Carrier Corporation on all counts. Judgment will enter for the Carrier Corporation. Each Party to bear its own costs.

IT IS SO ORDERED.

John J. McConnell, Jr.
United States District Judge
July 12, 2013