

National Resource Management CASE STUDY

NRM's Remote Site Manager provides internet-enabled temperature and alarm management in 11 environmental rooms and product storage areas. The installations have saved 650,000 kWh to date, exceeding estimates by 5%.

“Mechanical issues with our refrigeration systems have all been picked up through the RSM system, saving valuable time and money on compressor replacements and troubleshooting.”
— Shawn Clarke, Facilities Mgr.



Cold Storage Room

NRM Remote Site Manager Life Technologies, Carlsbad, California

Life Technologies is a global biotechnology tools company providing premier systems, consumables, and services for scientific researchers around the world. They have more than 60 facilities located in North America, Europe, Japan and Asia Pacific.

Life Technologies' Carlsbad facility is home to 11 environmental rooms and product storage areas with 23 zones of medium and low temp control. NRM was hired to install Remote Site Manager (RSM) to provide internet-enabled temperature control and alarm management. NRM also retrofitted 138 evaporator fans with electronically commutated motors. This project was performed using SDG&E's SPC program, which entails a Measurement and Verification protocol for obtaining a utility incentive. Prior to the start of the project, NRM estimated 622,000 kWh Savings. Actual measured savings were 650,000 kWh — 5% greater than originally estimated.*

FACILITY DESCRIPTION

- Life Technologies, Carlsbad, CA
- 11 environmental rooms & product storage areas with 23 medium & low temp control zones equipped with RSM
- 138 evaporator fans retrofitted with EC motors

OUTCOME

Since installing RSM in Carlsbad, Life Technologies has also retrofitted their Austin, Texas, facility.

“Life Technologies Austin started using the RSM in August of 2010 and we could not be more excited about the information that this system provides. Throughout our facility we have numerous walk-in coolers and freezers of varying sizes, all with 100% redundancy. NRM's technicians completed a pre-inspection and within a month's time they began our project. They had such integrity and pride in their company and system that our worries were alleviated. Since the installation we have not had a problem with the RSM. Mechanical issues with our refrigeration systems have all been picked up through the RSM system, saving valuable time and money on compressor replacements and troubleshooting.”

— Shawn Clarke, Facilities Supervisor
Life Technologies

* Savings, paybacks and incentives vary based on utility.

Life Technologies' Corporate Headquarters, Carlsbad, CA



NRM Mini Cool/Freeze		Temperature °C				Status				Starts 24 Hr.		% Run 24 Hr.		% Run 7 Days						
Description	Control Status	Space	Temp	Set	SP	DR	Mode	Dfsm	Sol	Fan	Amps	Sol	Comp	Fan	Sol	Comp	Fan			
Cooler 1018 Zone A	On	4.6	2.8	4.1	4	4.3	Run	Off	On	On	10.4	29	29	156	15.4	18.2	32.2	15	17.8	31.4
Cooler 1018 Zone B	On	5.2	5.2	5.2	4	4.6	Run	Off	Off	On	0.6	31	32	135	16.5	19.2	39.6	15.5	19.3	37.3
Cooler 1019 Zone A	On	17.4	15.1	18.6	18	18.2	Run	Off	Off	On	0.2	64	65	159	15.9	22.1	39.5	16.6	22.6	39.3
Cooler 1019 Zone B	On	18	16.3	18	18.4	18	Run	Off	Off	On	0.4	0	0	161	0	0	22.1	166.6	0	55.7
Cooler 6016 Zone A	On	4	0.5	4	4	4.5	Run	Off	Off	On	0.4	28	28	107	19.9	21	32.5	16.1	22.1	29.8
Cooler 6016 Zone B	On	3.7	3	4.3	4	4.1	Run	Off	Off	On	0.4	45	45	161	16.2	18.3	33.1	14	16	29.8
Cooler 6024 Zone A	On	3.6	0.4	6	4	4.6	Run	Off	Off	On	0.2	113	113	111	44.2	47.1	67.8	39	43.7	69.6
Cooler 6024 Zone B	On	3.8	-0.5	4	5.6	4	Run	Off	Off	On	11.6	113	113	110	46.9	53.6	72.5	42.5	54.9	65
Freezer 1017 Zone A	On	-18.1	-20.4	-20	-18.8	-18.8	Run	Off	On	On	20.7	21	94	65	47.8	56.3	57.9	37	46.8	47.9
Freezer 1017 Zone B	On	-17.7	-17.4	-20	-18.5	-18.5	Run	Off	Off	On	0	26	76	67	45.1	54.3	55.9	31.3	48.7	42.8

RSM Summary, highlighting evaporator fan runtimes. Prior to NRM installation, these runtimes were 100%.