Lyngby Port

Energy efficiency improvements according to Total Concept method

STEP 3 – MEASUREMENT AND FOLLOW-UP

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SUMMARY

The renovation finished entirely in 2016 only for section A and B of the building. Furthermore section A remained empty in 2016. The works in section C finished in October 2016. The presented results are therefore only valid for section B (and partly section C) and they were scaled for section A and C. The scaling of the results from section B is based on assumption that the energy decrease would be similar in section A and C when fully occupied.

Figure 1 presents the measurement outcomes in Step 3 compared to estimated baseline in Step 1 and calculated values in Step 2.

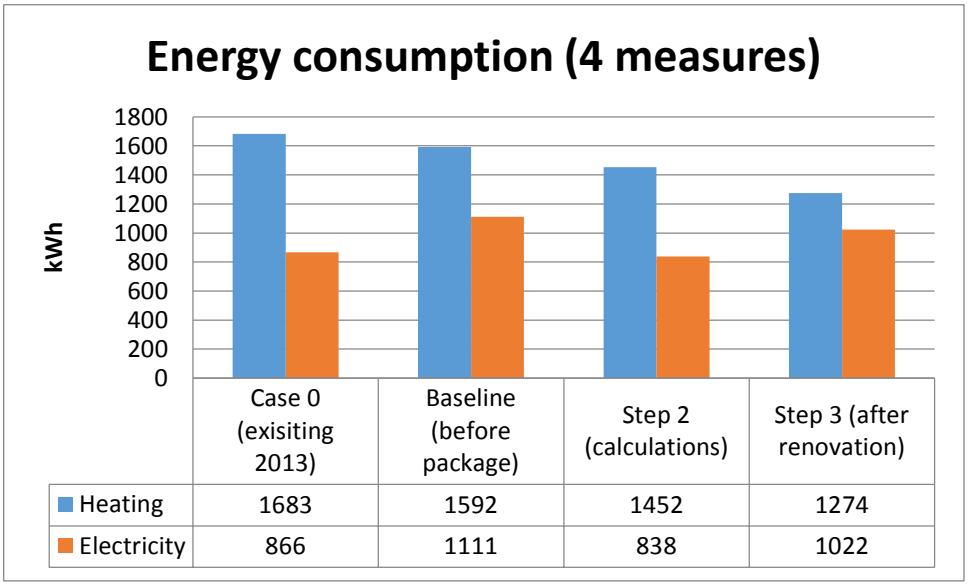

***Figure 1**. Specific energy use before and after carrying out the energy efficiency measures in the action package for Lyngby Port office building. Energy savings are based on the new baseline for the energy performance of the building.*

According to the measurement from section B for 2016 (and for 2 months for section C) and estimation for section A and the rest of section C, the total specific energy use of the property after renovations is about 2168MWh/m2 per year (assuming that the building is fully occupied).

The total heat energy use after renovations is about 1274 MWh/ per year (decrease by 19% comparing to the baseline). The estimation in Step 2 was about 1452 MWh/m2 per year. The total heat energy use after renovations is about 1022 MWh/ per year (decrease by 21% of the common energy and 8% of the whole energy comparing to the baseline). The estimation in Step 2 was about 838 MWh/m2 per year. The deviation can come from lack of valid measurements for section A and C. The missing saving is due to higher electricity use for ventilators. There are 2 probable reasons for this: higher occupation rates are handled with more air instead of lower temperature (priority programmed in BMS) as well as higher pressure loss in the ventilation units then originally calculated.

The high pressure loss in the ventilation units will be reduced by increasing size of openings after ventilators as well as removing unnecessary bendings after the air handling units. This is planned for February- March 2017 (inclusive measurements before and after).

The calibration of the systems is still needed and data for the full year of measurements should be analysed. Moreover the tenant for section B (court) is characterized by fluctuations in use of the building (number of persons, operation time). The results show unexpected increase in heating demand in December 2016 comparing to 2013. To validate the results the internal gain, operation hours, set points and climate data have to be compared. The results for electricity show even more fluctuations – and it is suggested that the electricity data will be followed precisely for the next months.. The more steady office environment would give more reliable results.

The action package carried out in Step 2 the total building energy use was estimated to be with the internal rate of return about 8 %. The measured/scaled outcomes in Step 3 show the savings for now with the internal rate of return 4 %.The result is only informative as there are still some unclarified issues. After solving the problem with high pressure loss in the ventilation system the internal rate of return will be higher.

BACKGROUND

This report presents the outcomes of the energy efficiency improvements in Lyngby Port office building based on the Total Concept method. The main objective of the renovation in Lyngby Port was to incorporate energy performance improvements to the general upgrade of the building for upcoming tenant adjustments. This project is part of an international project *"The Total Concept method for major reduction of energy use in non-residential buildings",* supported by Intelligent Energy Europe Programme.

Lyngby Port is an office building in portfolio of a Danish property company Nordea Ejendomme. The building is built in 1992 and divided into 3 building segments; A, B and C at Lyngby Hovedgade 94, 96 and 98 - each of them has main meter installed. Lyngby Port has 7 floors including basement. Segment A has 7 floors, B has 6 floors and C has 5 floors.

The building consisted of cell offices grouped in modules. The intensity of occupancy was around 25m2/pers. The office building Lyngby Port, with several tenants, was prepared for a new tenant in larger parts of the building (more open office areas, higher number of employees).

Total measured energy use before renovations was 2549 MWh/ yr (including tenants' electricity). Due to planned tenant adjustments of indoor climate and number of occupants the energy use of the building was estimated to increase to about 2703 MWh/ yr. This was set as a new baseline for energy efficiency measures. The proposed action package in Step 1 contained 7 energy saving measures, which were planned to be

carried out as part of the upcoming renovation for the tenant adjustments. Four measures were carried out in Step 2 with some modifications to the initial plans.

Step 1 of the Total Concept method (forming an action package) was carried out in the buildings in 2014 and the proposed measures were implemented (Step 2) in 2015-2016. Measurements and follow-up (Step 3) has been carried out for 2016. The following persons have been involved in the measurements and follow-up work in Step 3 of the Total Concept method:

Participant	**Contact**
Rambøll	
Pawel Krawczyk – project management, and calculations	palk@ramboll.dk
Nordea Ejendomme	
Carsten Frederiksen – project management	carsten.frederiksen@nordeaejendomme.dk
Jens Nygaard – maintenance chef	jens.nygaard@nordeaejendomme.dk

All steps were performed by the same consultant – Rambøll.

MEASURES CARRIED OUT IN STEP 2

The proposed action package in Step 1 contained 7 energy saving measures, which were planned to be carried out as part of the upcoming renovation for the tenant adjustments. A number of adjustments were made to the action package in Step 2.

Table 1 and 2 show investments, cost and energy savings from step 1 compared to real investments (including consulting costs) and with calculated, adjusted saving. The reasons and consequences for all major adjustments are specified in table 3.

***Table 1**. Cost savings for the measures in the action package.*

No	Measure	Step 1		Step 2	
		Estimated investment [Euro]	Estimated Cost saving [Euro/year]	Real Investment [Euro]	Adjusted Cost saving [Euro/year]
1	Conversion to district heating	20,000 €	31,200 €	-	-
2	New ventilators	73,400 €	38,300 €	139,600 €	36,000€
3	Insulating ventilation ducts in shafts	14,300 €	2,200 €	39,730 €	3,000€
4	PV panels	233,400 €	37,500 €	-	-

5	Optimization of BMS system	300,000 €	28,500 €	234,530	27,000€
6	PIR sensors in toilets	9,400 €	500 €	-	-
7	New cooling system	295,500 €	10,900 €	293,300 €	10,000€ (incl. maintanace saving)
	Sum	**946,000 €**	**149,100 €**	707,200 €	76,000 €
	Internal rate of return	15.7%		8%	

***Table 2**. Energy savings for the measures in the action package.*

No	Measure	Step 1		Step 2	
		Thermal energy [MWh/year]	Electrical energy [MWh/year]	Thermal energy [MWh/year]	Electrical energy [MWh/year]
1	Conversion to district heating	187	0	-	-
2	New ventilators	-45	164	-45	180
3	Insulating ventilation ducts in shafts	0	16	0	16
4	PV panels	0	166	-	-
5	Optimization of BMS system	183	138	186	51
6	PIR sensors in toilets	0	3	-	-
7	New cooling system	0	58	0	25
	Sum	**325**	**545**	**141**	**272**

***Table 3**. Deviations from step 1 – Reasons and consequences*

No	Measure	Step 1	Step 2	
		Presumptions	Adjusted	Consequence

1	Conversion to district heating	-	Not implemented yet	Lack of saving
2	New ventilators	Replacement old ventilators with axial ventilators	Replacement old ventilators with centrifugal ventilators. Replacing rusty plates in the AHU units, installing extra submeters and performance test to check SFP factor. The replacement will be done in the weekend to not to cause problems for tenants (higher work hour rates)	The IRR for the single measures reduced
3	Insulating ventilation ducts in shafts	30mm insulation, around 100mm ducts	50mm insulation, around 630 mm ducts The owner decided to insulate not only ducts in the shafts but also ducts in the basement and at the roof as well as distributing ducts in the shafts areas.	The IRR for the single measures reduced
4	PV panels	-	Not implemented yet	Lack of saving
5	Optimization of BMS system	-	-	-
6	PIR sensors in toilets	-	Not implemented yet	Lack of saving
7	New cooling system	-	-	-

Explanatory comments:

- Measure 1 will be first implemented in spring 2017 (problems with cables in the ground from light rail located nearby)
- Measure 4 - will be first implemented in spring 2017

RESULTS OF MEASUREMENTS AND FOLLOW-UP IN STEP 3

The use of the building and operation of the technical systems after renovation

The Lyngby Port property consists of two office buildings divided into 3 sections: A, B, C. The follow up was only possible for part B, as part A was empty in the whole 2016, while part C was mainly under the renovation in the most of 2016 (the tenant moved in October 2016)

The presented results are therefore only valid for section B and they were scaled for section A and C. The scaling of the results from section B is based on adjusting energy according to the area and anticipated number of occupants in section A and C. The scaling of the results from section B is based on assumption that the energy decrease would be similar in section A and C when fully occupied.

Operating times and control set point values of the different systems and components were assumed to be the same like in 2013 (no possibility of trending the values in BMS system).

Indoor climate

There was carried out significant upgrade of indoor climate in part C – higher occupation rate and need for refreshment of offices resulted in exchanging the whole ventilation system in the office areas. The main ventilation ducts remained the same. The new ventilation system is VAV with a diffuse supply air. There were also some minor changes in supply air temperature undertaken in building B.

Property owner´s indoor temperature requirements set for the office premises are: winter time +22°C and summer time +23°C.

Building energy use before and after renovations

Figures 2 and 3 below show the measured total district heating use and total electricity use for the section B during January 2016 to December 2016 compared to measurements for 2013. The monthly values for district heating use are corrected with degree days.

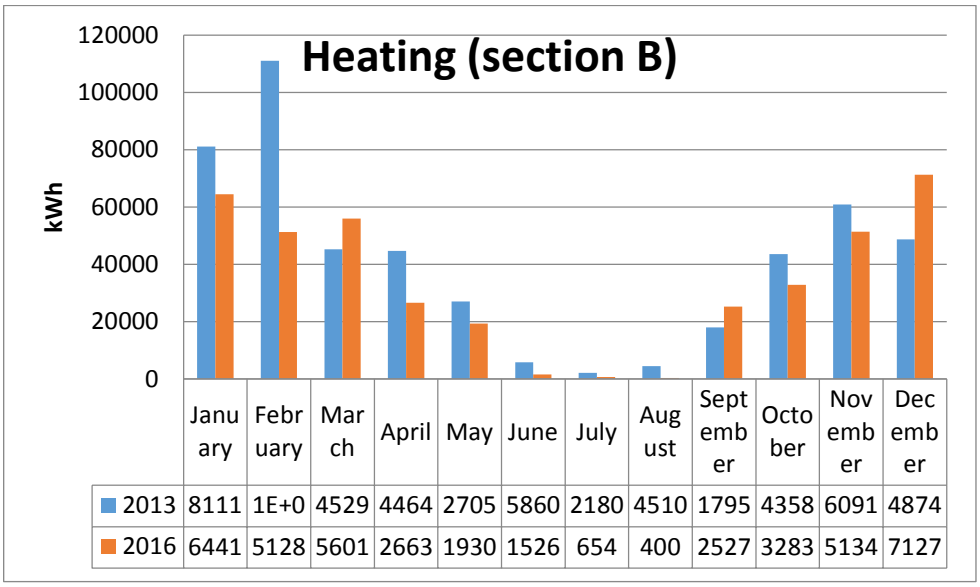

***Figure 2**. Measured total heating use for section B for 2013 (before renovation) and 2016 (after renovation)*

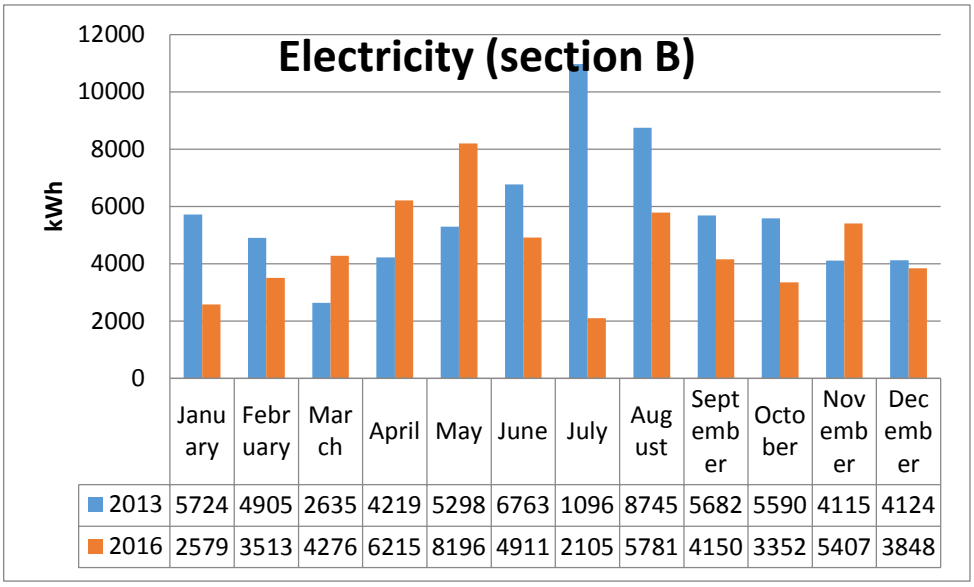

***Figure 3**. Measured total electricity use for section B for 2013 (before renovation) and 2016 (after renovation)*

The results show unexpected increase in heating demand in December 2016 comparing to 2013. To validate the results the internal gain, operation hours, set points and climate data have to be compared. The results for electricity show even more fluctuations – and it is suggested that the electricity data will be followed precisely for the next months. It has been also noted that sub-meters for cooling show unrealistic values (the owner has been informed).

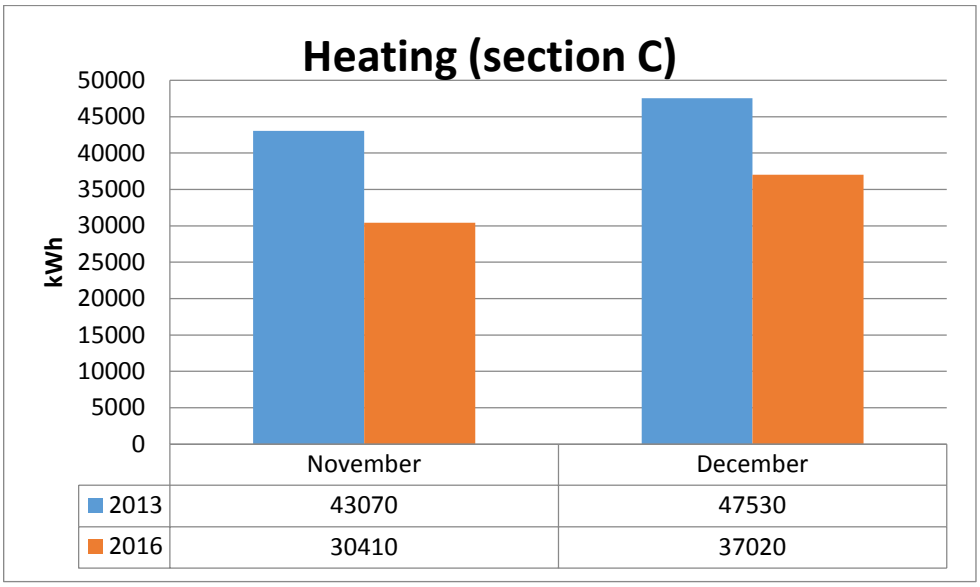

***Figure 4**. Measured total heating use for section C for 2013 (before renovation, adjusted to the baseline) and 2016 (after renovation)*

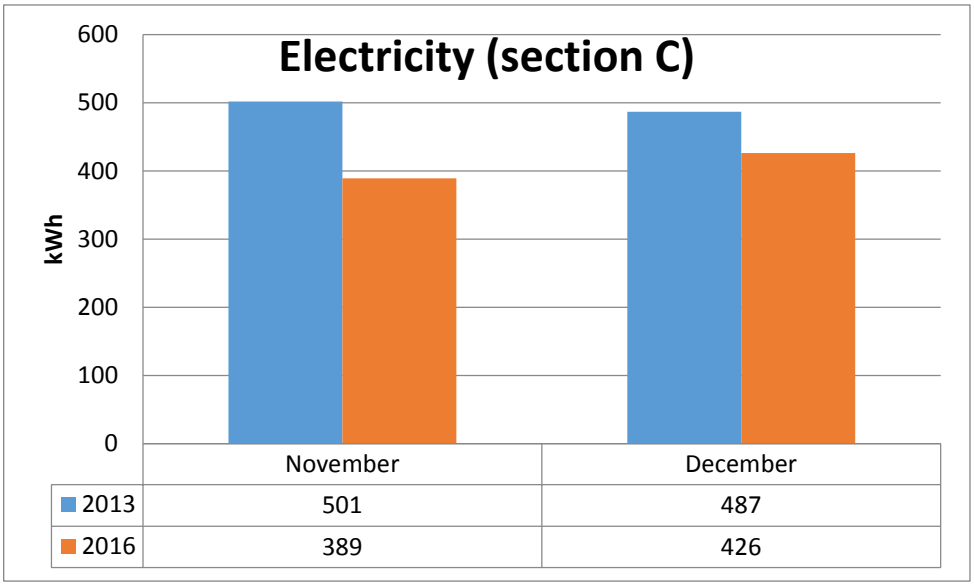

***Figure 5**. Measured total electricity use for section C for 2013 (before renovation, adjusted to the baseline) and 2016 (after renovation)*

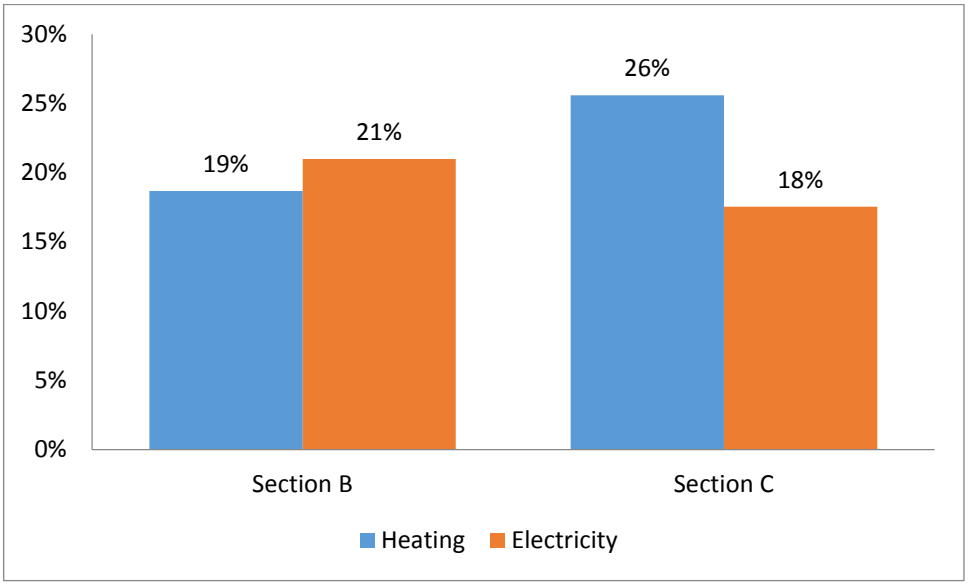

***Figure 6**. Measured total electricity use for section B for 2013 (before renovation, adjusted to the baseline) and 2016 (after renovation)*

The results in figure 6 show that it has been a decrease of energy consumption for both heating and electricity for both section B and C.

More detailed measurement outcomes from Step 3 are summarized in Appendix 1.

PROFITABILITY RESULTS OF THE ACTION PACKAGE

The estimated (scaled) profitability outcomes are presented in the table 4 below. The diagram on figure 4 shows the calculated profitability for the action package in Step 2 together with the scaled/ estimated profitability that was calculated after Step 3.

The action package carried out in Step 2 the total building energy use was estimated to be with the internal rate of return about 8 %. The measured/scaled outcomes in Step 3 show the savings for now with the internal rate of return 4 %. The result is only informative as there are still some unclarified issues. After solving the problem with high pressure loss in the ventilation system the internal rate of return will be higher.

***Table 4**. Summary of the outcomes of the action package carried out in Lyngby Port compared to the estimations made in Step 2. Presented savings are compared to the baseline.*

	Step 2	**Step 3**
Total annual energy savings:	15 %	15%
Calculated energy savings – district heating:	140 MWh/yr	318 MWh/yr
Calculated energy savings – electricity:	273 MWh/yr	89 MWh/yr (+ maintanace cost)
Total annual cost savings:	72 kEUR/yr	29 kEUR/yr

Energy investment cost:	180,7 kEUR (28%)	180,7 kEUR (28%)
Internal rate of return for the package:	8%	4%

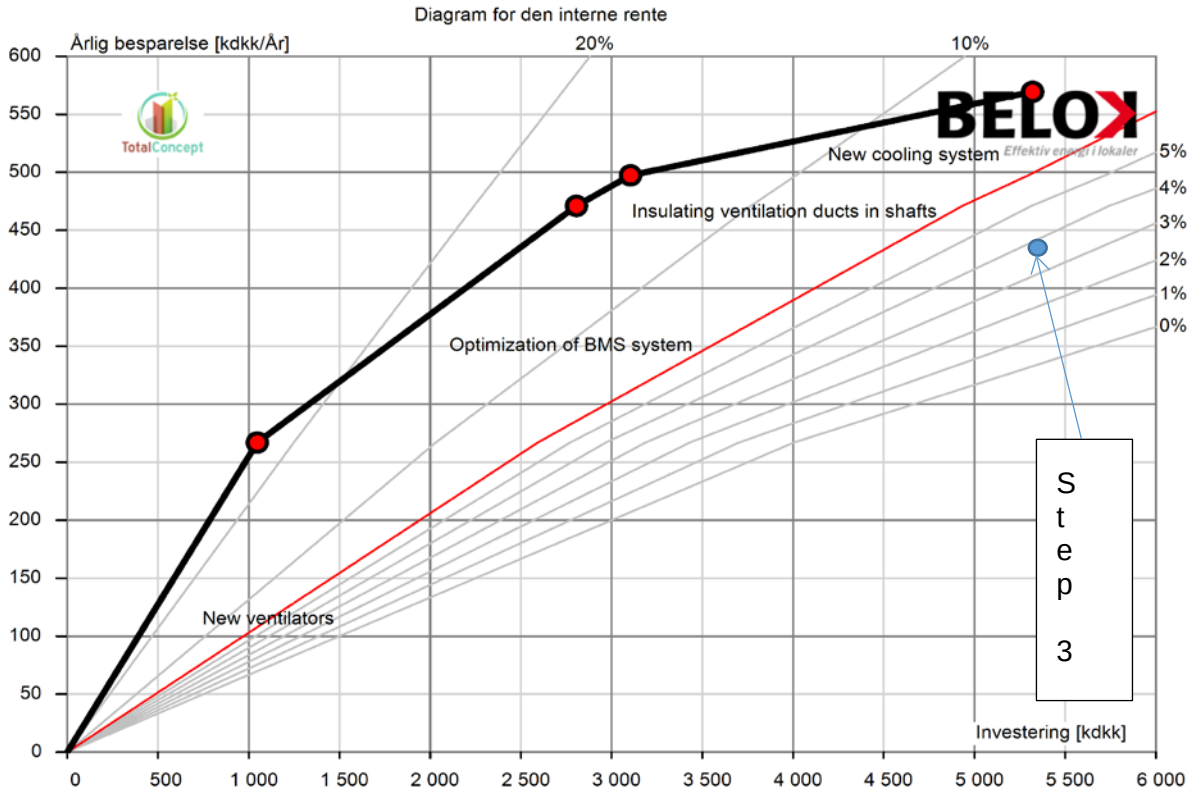

Figure 4. Outcomes of the profitability of the action package carried out in the Lyngby Port office building presented in an internal rate of return diagram. Estimated internal rate of return for the action package after Step 3 is approx 4 %.

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Document version 1		

APPENDIX

	Energiaflæsninger Lyngby Port 2013				Elmålere									
	Måned:						December	Januar	Februar	Marts	April	Maj	Juni	I ALT
	Placering:	Måler nr.	Betegnelse	NESA nr.	Inst. nr.	forbrug								
Start fra kontor 96 sidste dør på venstre hånd														
NR 1	Stuen bygn. B	60695	Kontorfællesskab 96 og 98		13-35053	**kwh**	226344	235068	244812	250054		266439	270728	
NR 2	Stuen bygn. B	800279	Lyngby ret		13-34878	**kwh**	477336	479487	481746	483006		486784	488687	
NR 3	Stuen bygn. B	3103550	Fællesanlæg	086350 51095	13-34514	**kwh**	4455	4646	4833	4932		5238	5393	
NR 3A	Stuen bygn. B	1050927-38073	Nordea bank 1. sal	741-15607396		**kwh**	369429	380666	394599	402169		422798	432731	
Tag elevator til til 4 sal dør skråt til højre														
NR 4	Taghus B	96163	Vent. anlæg 5703			**kwh**	532672	535945	538494	539857		544217	546697	
NR 5	Taghus B	96129	Vent. anlæg 5704			**kwh**	473618	476069	478425	479697		484429	487012	
NR 6	Taghus B	92291704	Koldt vand	5703		**mwh**	1242.4	1242.4	1242.4	1242.4		1242.4	1242.9	
NR 7	Taghus B	92291458	Centralvarme	5703		**mwh**	408.22	420.78	449.13	454.38		481.24	486.84	
NR 8	Taghus B	92291703	Koldt vand	5704		**mwh**	509.1	509.1	509.1	509.1		510.8	517.1	
NR 9	Taghus B	92291459	Centralvarme	5704		**mwh**	467.74	481.48	494.53	501.59		509.47	509.73	
Tag elevator ned i kld. Dør overfor														
NR 10	Bygn. B kælder, anlæg 571(	91255149	Vandmåler			**m3**	23223	23302	23401	23464		23637	23719	
NR 13	Bygn. B kælder	92291454	Radiatoranlæg B nord	5655		**mwh**	1841.69	1856.85	1873.76	1882.86		1894.49	1894.49	
NR 14	Bygn. B kælder	92291450	Radiatoranlæg B syd	5656		**mwh**	2157.77	2181.37	2211.49	2225.3		2238.46	2238.46	
NR 15	Bygn. B kælder	40220242	Centralvarme foyer	5708		**mwh**	18.988	20.338	21.756	22.523		24.24	24.668	
NR 16	Bygn. B kælder	20320915	Ventilation	5708		**mwh**	155.513	161.381	167.744	172.653		177.462	177.487	
NR 17	Kælder bygn. B	189971	Lejer ? (Køkken)			**kwh**	112091	112091	112091	112091		112091	112091	
NR 18	Kælder bygn. B	141498	Vent. anlæg bl. sløjfer			**kwh**	344614	346804	349102	350338		353790	355089	
Gå i affalds rum 96														
NR 19	Affaldsrum B	92291455	Radiatoranlæg B vest	5658		**mwh**	794.78	804.21	815.9	821.59		827.29	827.29	
NR 20	Affaldsrum B	92291456	Radiatoranlæg B øst	5657		**mwh**	847.71	854.33	865.25	869.63		876.1	876.1	
Gå i kedel central (vaskemaskine)														
NR 21	Kedelcentral	141520	Fælles el vent. 5717			**kwh**	35863	35951	36045	36094		36241	36315	
NR 22	Kedelcentral	1578934	Kaffemaskine Schoot			**m3**	14999	14999	14999	14999		15000	15000	
NR 23	Kedelcentral		Vandmaskine			**m3**	6892	6892	6892	6892		6892	6892	
NR 24	Kedelcentral	92291439	Radiatoranlæg C vest	5662		**mwh**	407.4	416.19	425.27	42977		434.36	434.36	
NR 25	Kedelcentral	92291451	Radiatoranlæg C øst	5661		**mwh**	774.87	785.95	796.43	801.32		807.05	807.05	

NR 26	Kedelcentral	92291607	Centralvarme	Fællesmåler		**mwh**	19491.1	19789.4	20127.1	2029.32		20512.9	20541.1	
NR 27	Kedelcentral	42141029	Ekspansionbeholder			**m3**	24.668	24.67	24.762	24.672		24.672	24.672	
NR 28	Kedelcentral	9090055k	Gas måler	1230020		**m3**	403965	435483	470647	488310	503001	512201	515749	
	Husk HNG aflæsning		**Forbrug**					**31518**	**35164**	**17663**	**14691**	**9200**	**3548**	**111784**
Gå i 98 kld over for elevator teknik rum														
NR 29	Bygn. C kælder	92292048	Koldt vand	5706		**mwh**	660.5	660.5	660.5	660.5		662.3	666.9	
NR 30	Bygn. C kælder	92291452	Centralvarme	5706		**mwh**	387.8	399.67	410	416.64		434.09	440.21	
NR 31	Bygn. C kælder	92291457	Radiatoranlæg C syd	5660		**mwh**	1325.82	1340.42	1356.11	1364.3		1372.03	1372.03	
NR 32	Bygn. C kælder	92291449	Radiatoranlæg C nord	5659		**mwh**	2058.34	2080.27	2103.87	2117		2131.55	2131.55	
NR 32A	Bygn. C kælder	91255136	Vandmåler			**m3**	34974	35030	35083	35129		35208	35268	
NR 33	Kælder teknikrum	130875	Vent. anlæg			**kwh**	170134	170710	171281	171594		172777	173435	
NR 34	Bygn. C kælder	92292049	Koldt vand	5705		**mwh**	3985.4	3985.4	3985.4	3985.4		3986.9	3990	
NR 35	Bygn. C kælder	92291448	Centralvarme	5705		**mwh**	245.54	252.8	260.54	265.23		270.52	270.93	
Tag elevator til O Tavle rum til højre														
NR 36	Stuen bygn. C	1009419	BMS	741-15426904		**kwh**	54897	55420	56111	56461		57388	57864	
NR 37	Stuen bygn. C	1002504-50564	TRYG	600737728	13-34536	**kwh**	142145	142263	142372	142423		142579	142654	
NR 38	Stuen bygn. C	188602	Fællesanlæg		13-34644	**kwh**	307087	307271	309116	310290		310739	310739	
NR 39	Stuen bygn. C	43414-51091	Fællesanlæg		13-34515	**kwh**	789290	791970	794610	796070		801280	804180	
NR 40	Bygn. tavlerum		Ribberør vindfang			**mwh**	203.78	208.777	214.505	217.881		221.219	21.219	
Gå til redskabs rum i kld														
NR 41	Affaldsrum A	92291447	Radiatoranlæg A vest	5654		**mwh**	1440.44	1455.71	1472.03	1479.99		1490.03	1491.41	
NR 42	Affaldsrum A	92291446	Radiatoranlæg A øst	5653		**mwh**	2612.58	2655.31	2684.83	2693.12		2708.8	2710.01	
Gå til kølecentral i cykel kld 94														
NR 43	Kølecentral	92291702	Fælles kølevandsmåler			**mwh**	312729	312729	312729	312729		314112	319152	
NR 44	Kølecentral	92291440	Rampevarme			**mwh**	306.07	306.07	306.07	306.07		306.07	306.07	
NR 45	Kølecentral	1245617	Hovedvand forsyning			**m3**	11440	11699	12026	12236		12825	13163	
NR 46	Kølecental	141521	Kølerumsforbrug			**kwh**	47157	47272	47396	47462		48204	48554	
Gå ud til hovedtavlerum i mellem gang til brandcentral														
NR 47	Hovetavlerum/Sprinkler	9859047	Fællesanlæg		13-34492	**kwh**	1891	1898	1906	1909		1910	1910	
NR 48	Hovetavlerum/kølecen.	092654-51099	Fællesanlæg		13-34491	**kwh**	462458	463489	464580	465097		466835	468331	
Gå ind i 94 (cowi) gå til venstre travlerum nr 19 (nesa)														
NR 49		086386-51095	COWI		13-34509	**kwh**	200568	205000	210544	213480		222345	224108	

NR 50	Cowi rum 019	3105999	Fællesanlæg		13-34493	**kwh**	2824	2988	3166	3261		3584	3760	
Gå til teknikrum nr 29														
NR 51	Kælder, teknikrum	141522	Vent.anlæg bl. sløjfer			**kwh**	475569	478411	481417	483013		487003	488699	
NR 52	Bygn. A teknikrum (29)	40220243	Vindfang A	5708		**mwh**	4.869	5.357	5.909	6.149		6.341	6.342	
NR 53	Bygn. A teknikrum (29)	92291441	Foyer A	5708		**mwh**	473.73	476.24	478.09	479.33		480.87	481.06	
Gå til teknikrum nr 34														
NR 54	Bygn. A kælder	91255138	Vandmåler			**m3**	45494	45639	45837	45947		46315	46535	
NR 55	Bygn. A kælder (34)	92291453	Radiatoranlæg nord	5651		**mwh**	2290.29	2315.32	2340.86	2354.3		2366.8	2368.79	
NR 56	Bygn. A kælder	92291445	Radiatoranlæg syd	5652		**mwh**	1162.31	1172.41	1184.72	1191.19		1200.43	1203.67	
Tag elevator til 5 sal skråt til højre rum 533														
NR 57	Taghus A	96164	Vent. anlæg 5701			**kwh**	155300	160507	166522	169817		181599	187555	
NR 58	Taghus A	96165	Vent. anlæg 5702			**kwh**	409550	417064	424984	429319		444796	454234	
NR 59	Taghus A	92291609	Kølevand	5701		**mwh**	13880.3	13880.3	13880.3	138803		13911	14188.7	
NR 60	Taghus A	92291461	Centralvarme	5701		**mwh**	201.97	217.02	232.89	241.81		249.45	249.45	
NR 61	Taghus A	92291608	Kølevand	5702		**mwh**	2610.5	2610.5	2610.5	2610.5		2610.5	2610.5	
NR 62	Taghus A	92291460	Centralvarme	5702		**mwh**	327.75	347.67	367.22	381.34		387.68	387.7	
				Dato			19-12-2012	24-01-2013	05-03-2013	27-03-2013		31-05-2013	04-07-2013	
				Aflæst af			ls	ls	hh-ls	hh		ls/hh	kp	

	Energiaflæsninger Lyngby Port 2013				Elmålere								
	Måned:						Juni	Juli	August	September	Oktober	November	December
	Placering:	Måler nr.	Betegnelse	NESA nr.	Inst. nr.	forbrug							
Start fra kontor 96 sidste dør på venstre hånd													
NR 1	Stuen bygn. B	60695	Kontorfællesskab 96 og 98		13-35053	kwh	270728	273615	277380	281013	285192	288738	292112
NR 2	Stuen bygn. B	800279	Lyngby ret		13-34878	kwh	488687	489904	4916585	493384	495488	497354	499232
NR 3	Stuen bygn. B	3103550	Fællesanlæg	086350 51095	13-34514	kwh	5393	5531	5699	5849	6019	6157	6305
NR 3A	Stuen bygn. B	1037989	Nordea bank 1. sal	741-15607396		kwh	432731	440148	449641	459232	469802	477772	485377
Tag elevator til til 4 sal dør skråt til højre													
NR 4	Taghus B	96163	Vent. anlæg 5703			kwh	546697	548809	551353	553520	556061	558024	560042
NR 5	Taghus B	96129	Vent. anlæg 5704			kwh	487012	489937	493338	496153	499202	501354	503460
NR 6	Taghus B	92291704	Koldt vand	5703		mwh	1242.9	1247.4	1250.6	1250.6	1250.6	1250.6	1250.6
NR 7	Taghus B	92291458	Centralvarme	5703		mwh	486.84	488.86	492.41	505.32	529.27	558.87	570.61
NR 8	Taghus B	92291703	Koldt vand	5704		mwh	517.1	536.3	544.3	547.1	547.1	547.1	547.1
NR 9	Taghus B	92291459	Centralvarme	5704		mwh	509.73	509.79	510.03	511.78	517.16	525.11	534.17
Tag elevator ned i kld. Dør overfor													
NR 10	Bygn. B kælder, anlæg 5710	91255149	Vandmåler			m3	23719	23773	23856	23927	24008	24084	24143
NR 13	Bygn. B kælder	92291454	Radiatoranlæg B nord	5655		mwh	1894.49	1894.49	1894.79	1896.39	1899.84	1905.37	1911.76
NR 14	Bygn. B kælder	92291450	Radiatoranlæg B syd	5656		mwh	2238.46	2238.56	2238.74	2238.81	2244.55	2253.43	2263.53
NR 15	Bygn. B kælder	40220242	Centralvarme foyer	5708		mwh	24.668	24.896	25.275	25.985	27.271	28.478	29.807
NR 16	Bygn. B kælder	20320915	Ventilation	5708		mwh	177.487	177.493	177.502	177.56	177.782	178.399	179.227
	Kælder bygn. B	189971	Lejer ? (Køkken)			kwh	112091	112091	112091	112091	112091	112091	112091
NR 18	Kælder bygn. B	141498	Vent. anlæg bl. sløjfer			kwh	355089	356060	357491	358884	360526	361777	363139
Gå i affalds rum 96													
NR 19	Affaldsrum B	92291455	Radiatoranlæg B vest	5658		mwh	827.29	827.29	827.43	828.32	831.14	835.38	841.27
NR 20	Affaldsrum B	92291456	Radiatoranlæg B øst	5657		mwh	876.1	876.1	876.2	876.93	879.17	883.88	889.44

Gå i kedel central (vaskemaskine)													
NR 21	Kedelcentral	141520	Fælles el vent. 5717			**kwh**	36315	36373	36449	36512	36592	36659	36731
NR 22	Kedelcentral	1578934	Kaffemaskine Schoot			**m3**	15000	15000	15000	15000	15000	15000	15000
NR 23	Kedelcentral		Vandmaskine			**m3**	6892	6892	6892	6892	6892	6892	6892
NR 24	Kedelcentral	92291439	Radiatoranlæg C vest	5662		**mwh**	434.36	434.36	434.38	434.92	437.88	442.8	448.55
NR 25	Kedelcentral	92291451	Radiatoranlæg C øst	5661		**mwh**	807.05	807.05	807.17	808.3	810.93	816.17	822.54
NR 26	Kedelcentral	92291607	Centralvarme	Fællesmåler		**mwh**	20541.1	20556.9	20579.9	20621	20732	20901.6	21102.9
NR 27	Kedelcentral	42141029	Ekspansionbeholder			**m3**	24.672	24.672	24.672	24.672	25.072	25.101	25.33
NR 28	Kedelcentral	9090055k	Gas måler	1230020		**m3**	515749	517890	520926	525766	537663	555362	576444
	husk HNG aflæsning		**Forbrug**				**111784**	**2141**	**3036**	**4840**	**11897**	**17699**	**21082**
Gå i 98 kld over for elevator teknik rum													
NR 29	Bygn. C kælder	92292048	Koldt vand	5706		**mwh**	666.9	671.4	676.6	676.8	676.8	676.8	676.8
NR 30	Bygn. C kælder	92291452	Centralvarme	5706		**mwh**	440.21	442.9	447.11	477.81	453.86	457.41	462.59
NR 31	Bygn. C kælder	92291457	Radiatoranlæg C syd	5660		**mwh**	1372.03	1372.03	1372.08	1374.21	1380.38	1391.45	1404.21
NR 32	Bygn. C kælder	92291449	Radiatoranlæg C nord	5659		**mwh**	2131.55	2131.55	2131.7	2136.13	2145.9	2161.19	2177.33
NR 32A	Bygn. C kælder	91255136	Vandmåler			**m3**	35268	35283	35312	35342	35382	35420	35446
NR 33	Kælder teknikrum	130875	Vent. anlæg			**kwh**	173435	174001	174693	175065	175570	175981	176380
NR 34	Bygn. C kælder	92292049	Koldt vand	5705		**mwh**	3990	3991.5	3992.1	3992.1	3992.1	3992.1	3992.1
NR 35	Bygn. C kælder	92291448	Centralvarme	5705		**mwh**	270.93	270.79	271.12	271.43	271.9	274.9	276.23
Tag elevator til O Tavle rum til højre													
NR 36	Stuen bygn. C	1009419	BMS	741-15426904		**kwh**	57864	58108	58652	59076	59597	60041	60446
NR 37	Stuen bygn. C	1002504-50564	TRYK	600737728	13-34536	**kwh**	142654	142708	142780	142890	142960	143031	143101
NR 38	Stuen bygn. C	188602	Fællesanlæg		13-34644	**kwh**	310739	310739	311047	311047	311047	311495	311654
NR 39	Stuen bygn. C	43414-51091	Fællesanlæg		13-34515	**kwh**	804180	806480	809300	811010	813270	815260	817200
NR 40	Bygn. tavlerum		Ribberør vindfang			**mwh**	21.219	221.219	221.261	222.285	244.596	228.427	232.62

Gå til redskabs rum i kld													
NR 41	Affaldsrum A	92291447	Radiatoranlæg A vest	5654		**mwh**	1491.41	1492.07	1493.28	1494.93	1498.77	1507	1516.87
NR 42	Affaldsrum A	92291446	Radiatoranlæg A øst	5653		**mwh**	2710.01	2710.15	2710.55	2713.23	272254	2747.39	2782.06
Gå til kølecentral i cykel kld 94													
NR 43	Kølecentral	92291702	Fælles kølevandsmåler			**mwh**	319152	323964	329489	330075	330075	330075	330075
	Kølecentral	92291440	Rampevarme			**mwh**	306.07	306.07	306.07	306.07	306.07	306.07	306.07
NR 45	Kølecentral	03-2637365	Hovedvand forsyning			**m3**	13163	13349	13648	13926	14303	14576	14789
NR 46	Kølecental	141521	Kølerumsforbrug			**kwh**	48554	49236	49950	50039	50144	50236	50331
Gå ud til hovedtavlerum i mellem gang til brandcentral													
NR 47	Hovetavlerum/Sprinkler	92567	Fællesanlæg		13-34492	**kwh**	1910	1910	1912	1923	1926	1926	1927
NR 48	Hovetavlerum/kølecen.	092654-51099	Fællesanlæg		13-34491	**kwh**	468331	470565	472803	473350	474095	474650	475298
Gå ind i 94 (cowi) gå til venstre travlerum nr 19 (nesa)													
NR 49		086386-51095	COWI		13-34509	**kwh**	224108	230264	234591	238352	243065	247016	250401
NR 50	Cowi rum 019	3105999	Fællesanlæg		13-34493	**kwh**	3760	3905	4085	4222	4393	4523	4655
Gå til teknikrum nr 29													
NR 51	Kælder, teknikrum	141522	Vent.anlæg bl. sløjfer			**kwh**	488699	489974	491599	493045	495132	497169	499393
NR 52	Bygn. A teknikrum (29)	40220243	Vindfang A	5708		**mwh**	6.342	6.342	6.342	6.357	6.395	6.626	6.945
NR 53	Bygn. A teknikrum (29)	92291441	Foyer A	5708		**mwh**	481.06	481.13	481.22	481.62	482.28	483.31	484.57
Gå til teknikrum nr 34													
NR 54	Bygn. A kælder	91255138	Vandmåler			**m3**	46535	46659	46860	47050	47319	47491	47630
NR 55	Bygn. A kælder (34)	92291453	Radiatoranlæg nord	5651		**mwh**	2368.79	2370.29	2371.84	2375.16	2383.68	2395.13	2409.08
NR 56	Bygn. A kælder	92291445	Radiatoranlæg syd	5652		**mwh**	1203.67	1206.09	1208.52	1209.72	1215.45	1221.44	1229.37
Tag elevator til 5 sal skråt til højre rum 533													
NR 57	Taghus A	96164	Vent. anlæg 5701			**kwh**	187555	192752	199377	203778	209240	212726	216014
NR 58	Taghus A	96165	Vent. anlæg 5702			**kwh**	454234	462172	471909	479451	488120	494742	501564
NR 59	Taghus A	92291609	Kølevand	5701		**mwh**	14188.7	14734	15251.1	15355.3	15355.3	15355.3	15355.3
NR 60	Taghus A	92291461	Centralvarme	5701		**mwh**	249.45	249.89	250.35	250.35	251.34	253.34	256.45
NR 61	Taghus A	92291608	Kølevand	5702		**mwh**	2610.5	2610.7	2615	2615	2615	2615	2615

NR 62	Taghus A	92291460	Centralvarme	5702		**mwh**	387.7	387.7	387.7	388.05	389.03	394.1	401.15
				Dato			04-07-2013	31-07-2013	03-09-2013	01-10-2013	05-11-2013	03-12-2013	02-01-2014
				Aflæst af			kp	hh	kp	kp	ls	ls	kp

	Energiaflæsninger Lyngby Port 2016				Elmålere											
	Måned:						December	Januar	Februar	Marts	April	Maj	Juni	GAS		
	Placering:	Måler nr.	Betegnelse	NESA nr.	Inst. nr.	forbrug										
Start fra kontor 96 sidste dør på venstre hånd																
NR 1	Stuen bygn. B	4119079	Kontorfællesskab 96 og 98		13-35053	**kwh**	372585	376233	379612	383656		391244	394878			
NR 2	Stuen bygn. B	800279	Lyngby ret		13-34878	**kwh**	543032	545034	546876	548837		552510	554197			
NR 3	Stuen bygn. B	3103550	Fællesanlæg	086350 51095	13-34514	**kwh**	9922	10063	10202	10368		10648	10772			
NR 3A	Stuen bygn. B	1050927-38073	Nordea bank 1. sal	741-15607396		**kwh**	684310	692672	701371	710668		727304	734411			
Tag elevator til til 4 sal dør skråt til højre																
NR 4	Taghus B	96163	Vent. anlæg 5703			**kwh**	616963	617927	619767	621974		628663	631636	14673	2973	
NR 5	Taghus B	96129	Vent. anlæg 5704			**kwh**	556254	557869	559542	561611		567533	570301	14047		
NR 6	Taghus B	92291704	Koldt vand	5703		**mwh**	1274.5	1274.5	1274.5	1274.5		1280.6	1285.6			
NR 7	Taghus B	92291458	Centralvarme	5703		**mwh**	668.78	676.07	683.54	690.58		694.1	694.11			
NR 8	Taghus B	92291703	Koldt vand	5704		**mwh**	664.2	664.2	664.2	664.2		665.3	665.4			
NR 9	Taghus B	92291459	Centralvarme	5704		**mwh**	762.06	770.62	778.38	785.99		791.61	791.62			
Tag elevator ned i kld. Dør overfor																
NR 10	Bygn. B kælder, anlæg 571	91255149	Vandmåler			**m3**	26305	26400	26478	26552		26793	26849			
NR 13	Bygn. B kælder	92291454	Radiatoranlæg B nord	5655		**mwh**	2047.72	2063.37	2071.3	2086.09		2098.4	2098.4			
NR 14	Bygn. B kælder	92291450	Radiatoranlæg B syd	5656		**mwh**	2495.07	2511.14	2525.7	2539.59		2551.27	2551.28			
NR 15	Bygn. B kælder	40220242	Centralvarme foyer	5708		**mwh**	49.373	50.213	51.166	51.774		52.03	52.067			
NR 16	Bygn. B kælder	20320915	Ventilation	5708		**mwh**	210.724	210.879	211.187	211.313		211.341	211.349			
NR 17	Kælder bygn. B	189971	Lejer ? (Køkken)			**kwh**	112091	112091	112091	112091		112091	112091			
NR 18	Kælder bygn. B	141498	Vent. anlæg bl. sløjfer			**kwh**	393177	394447	395779	397287		401238	402482			
Gå i affalds rum 96																
NR 19	Affaldsrum B	92291455	Radiatoranlæg B vest	5658		**mwh**	936.95	944.63	950.79	956.87		963.46	964.48			
NR 20	Affaldsrum B	92291456	Radiatoranlæg B øst	5657		**mwh**	973.84	983	990.4	997		1003.22	1004.35			
Gå i kedel central (vaskemaskine)																
NR 21	Kedelcentral	141520	Fælles el vent. 5717			**kwh**	38417	38491	38562	38648		38837	38914			
NR 22	Kedelcentral	1578934	Kaffemaskine Schoot			**m3**	15002	15002	15002	15002		15002	15002			
NR 23	Kedelcentral		Vandmaskine			**m3**	6892	6892	6892	6892		6892	6892			
NR 24	Kedelcentral	92291439	Radiatoranlæg C vest	5662		**mwh**	506.62	513.44	520.38	527.3		532.52	532.52			
NR 25	Kedelcentral	92291451	Radiatoranlæg C øst	5661		**mwh**	1904.52	1912.19	1918.5	1924.71		930.83	930.83			
NR 26	Kedelcentral	92291607	Centralvarme	Fællesmåler		**mwh**	23188.7	23381.8	23537.9	23709.6		23897.8	23919.8			
NR 27	Kedelcentral	42141029	Ekspansionbeholder			**m3**	26.757	26.757	26.757	26.757		27.934	27.934			

NR 28	Kedelcentral	9090055k	Gas måler	1230020		**m3**	800514	820827	837393	855388	867111	875006	877397		
	Husk HNG aflæsning		**Forbrug**					**20313**	**16566**	**17995**	**11723**	**7895**	**2391**		
													Totalt i alt	**76883**	
Gå i 98 kld over for elevator teknik rum															
NR 29	Bygn. C kælder	92292048	Koldt vand	5706		**mwh**	688.1	688	688.1	688.1		695.2	700.9		
NR 30	Bygn. C kælder	92291452	Centralvarme	5706		**mwh**	509.34	509.34	509.34	509.34		530.78	530.79		
NR 31	Bygn. C kælder	92291457	Radiatoranlæg C syd	5660		**mwh**	1548.17	15363.66	1575.71	1587.74		1600.3	1600.35		
NR 32	Bygn. C kælder	92291449	Radiatoranlæg C nord	5659		**mwh**	2348.43	2366.33	2383.49	2398.36		2413.15	2413.21		
NR 32A	Bygn. C kælder	91255136	Vandmåler			**m3**	36581	36744	36831	36929		37108	37193		
NR 33	Kælder teknikrum	130875	Vent. anlæg			**kwh**	182417	182554	182590	183541		186308	187130		
NR 34	Bygn. C kælder	92292049	Koldt vand	5705		**mwh**	3992.9	3992.9	3992.9	3992.9		3992.9	3992.9		
NR 35	Bygn. C kælder	92291448	Centralvarme	5705		**mwh**	318.47	327.19	327.28	335.59		362.28	362.41		
Tag elevator til O Tavle rum til højre															
NR 36	Stuen bygn. C	1009419	BMS	741-15426904		**kwh**	65206	65283	65366	65546		66920	67500		
NR 37	Stuen bygn. C	1002504-50564	TRYG	600737728	13-34536	**kwh**	145296	145454	145619	145899		147883	148764		
NR 38	Stuen bygn. C	188602	Fællesanlæg		13-34644	**kwh**	319636	320227	321028	321850		322598	322598		
NR 39	Stuen bygn. C	43414-51091	Fællesanlæg		13-34515	**kwh**	850450	851400	852140	855970		867580	871370		
NR 40	Bygn. tavlerum		Ribberør vindfang			**mwh**	280.29	284.843	289.234	291.007		295.222	295.241		
Gå til redskabs rum i kld															
NR 41	Affaldsrum A	92291447	Radiatoranlæg A vest	5654		**mwh**	1584.3	1590.13	1594.76	1598.5		1599.13	1599.13		
NR 42	Affaldsrum A	92291446	Radiatoranlæg A øst	5653		**mwh**	2916.85	2929.87	2949.38	2966.79		2976.8	2976.8		
Gå til kølecentral i cykel kld 94															
NR 43	Kølecentral	92291702	Fælles kølevandsmåler			**mwh**	355784	355784	355784	355784		366119	371181		
NR 44	Kølecentral	92291440	Rampevarme			**mwh**	309.36	315.34	320.87	324.4		324.53	324.53		
NR 45	Kølecentral	2637365	Hovedvand forsyning			**m3**	19429	19684	19856	20022		20646	20791		
NR 46	Kølecental	141521	Kølerumsforbrug			**kwh**	53926	53988	54048	54121		54311	5439		
Gå ud til hovedtavlerum i mellem gang til brandcentral															
NR 47	Hovetavlerum/Sprinkler	9859047	Fællesanlæg		13-34492	**kwh**	2010	2013	2016	2023		2046	2064		
NR 48	Hovetavlerum/kølecen.	092654-51099	Fællesanlæg		13-34491	**kwh**	495745	496406	3035	9911		38422	56959		
Gå ind i 94 (cowi) gå til venstre travlerum nr 19 (nesa)															
NR 49		086386-51095	COWI		13-34509	**kwh**	287182	287843	288504	289090		291215	291739		
NR 50	Cowi rum 019	3105999	Fællesanlæg		13-34493	**kwh**	6455	6510	6569	6621		6759	6820		
Gå til teknikrum nr 29															
NR 51	Kælder, teknikrum	141522	Vent.anlæg bl. sløjfer			**kwh**	537867	539400	540920	542687		546425	547901		

NR 52	Bygn. A teknikrum (29)	40220243	Vindfang A	5708		**mwh**	8.237	8.237	8.237	8.237		8.237	8.237		
NR 53	Bygn. A teknikrum (29)	92291441	Foyer A	5708		**mwh**	493.43	493.43	493.43	493.43		493.43	493.43		
Gå til teknikrum nr 34															
NR 54	Bygn. A kælder	91255138	Vandmåler			**m3**	49431	49447	49465	49478		49708	49721		
NR 55	Bygn. A kælder (34)	92291453	Radiatoranlæg nord	5651		**mwh**	2525.3	2538.71	2550.83	2563.63		2580.34	2584.71		
NR 56	Bygn. A kælder	92291445	Radiatoranlæg syd	5652		**mwh**	1294.32	1301.2	1307.56	1313.66		1320.66	1322.72		
Tag elevator til 5 sal skråt til højre rum 533															
NR 57	Taghus A	96164	Vent. anlæg 5701			**kwh**	278964	280949	283013	283804		2888814	292261		
NR 58	Taghus A	96165	Vent. anlæg 5702			**kwh**	556094	556094	556094	556094		556094	556122		
NR 59	Taghus A	92291609	Kølevand	5701		**mwh**	17447.3	17509.3	17509.3	17522.7		17894	18100.1		
NR 60	Taghus A	92291461	Centralvarme	5701		**mwh**	327.43	336.4	342.25	347.44		348.07	348.03		
NR 61	Taghus A	92291608	Kølevand	5702		**mwh**	2617.9	2617.9	2617.9	2617.9		2617.9	2617.9		
NR 62	Taghus A	92291460	Centralvarme	5702		**mwh**	425.69	425.69	425.69	425.69		425.69	425.7		
				Dato			05-01-2016	02-02-2016	01-03-2016	04-04-2016		28-06-2016	03-08-2016		
				Aflæst af			hh	hh	hh	hh		hh	ls		

	Energiaflæsninger Lyngby Port 2014				Elmålere								
	Måned:						Juni	Juli	August	September	Oktober	November	December
	Placering:	Måler nr.	Betegnelse	NESA nr.	Inst. nr.	forbrug							
Start fra kontor 96 sidste dør på venstre hånd													
NR 1	Stuen bygn. B	4119079	Kontorfællesskab 96 og 98		el	kwh	391244	394878	403646	408132	412285	416187	420533
NR 2	Stuen bygn. B	800279	Lyngby ret		el	kwh	552510	554197	557901	560025	562093	564147	566250
NR 3	Stuen bygn. B	3103550	Fællesanlæg	086350 51095	el	kwh	10648	10772	11105	11242	11357	11481	11612
NR 3A	Stuen bygn. B	1037989	Nordea bank 1. sal	741-15607396	el	kwh	727304	734411	740399	746813	752696	758120	764972
Tag elevator til til 4 sal dør skråt til højre													
NR 4	Taghus B	96163	Vent. anlæg 5703			kwh	628663	631636	634950	637255	639182	641094	642570
NR 5	Taghus B	96129	Vent. anlæg 5704			kwh	567533	570301	572768	574613	576038	577783	580155
NR 6	Taghus B	92291704	Koldt vand	5703	sløjfen	mwh	1280.6	1285.6	1285.6	1285.6	1285.6	1292.6	1292.6
NR 7	Taghus B	92291458	Centralvarme	5703	sløjfen	mwh	694.1	694.11	694.12	694.13	697.61	699.22	702.24
NR 8	Taghus B	92291703	Koldt vand	5704	sløjfen	mwh	665.3	665.4	665.4	665.4	665.4	665.4	665.4
NR 9	Taghus B	92291459	Centralvarme	5704	sløjfen	mwh	791.61	791.62	792	792.42	799.2	808.03	819.74
Tag elevator ned i kld. Dør overfor													
NR 10	Bygn. B kælder, anlæg 571	91255149	Vandmåler			m3	26793	26849	26928	27041	27143	27225	27416
NR 13	Bygn. B kælder	92291454	Radiatoranlæg B nord	5655		mwh	2098.4	2098.4	2098.41	2100.42	2113.44	2124.1	2138.36
NR 14	Bygn. B kælder	92291450	Radiatoranlæg B syd	5656		mwh	2551.27	2551.28	2551.28	2553.27	2570.25	2587.98	2613.29
NR 15	Bygn. B kælder	40220242	Centralvarme foyer	5708	sløjfen	mwh	52.03	52.067	52.117	52.149	52.461	52.77	53.789
NR 16	Bygn. B kælder	20320915	Ventilation (foyer)	5708		mwh	211.341	211.349	211.361	211.366	211.391	211.486	211.776
NR 17	Kælder bygn. B	189971	Lejer ? (Køkken)		-	kwh	112091	112091	112091	112091	112091	112091	112091
NR 18	Kælder bygn. B	141498	Vent. anlæg bl. sløjfer		foyer	kwh	401238	402482	403537	404520	405865	406861	408240
Gå i affalds rum 96													
NR 19	Affaldsrum B	92291455	Radiatoranlæg B vest	5658		mwh	963.46	964.48	964.48	985.13	970.92	976.77	985.11
NR 20	Affaldsrum B	92291456	Radiatoranlæg B øst	5657		mwh	1003.22	1004.35	1004.35	1004.54	1011.32	1017.98	1026.61
Gå i kedel central (vaskemaskine)													
NR 21	Kedelcentral	141520	Fælles el vent. 5717		udsugning	kwh	38837	38914	38977	39045	39116	39170	39243
NR 22	Kedelcentral	1578934	Kaffemaskine Schoot			m3	15002	15002	15002	15002	15002	15002	15002

NR 23	Kedelcentral		Vandmaskine			**m3**	6892	6892	6892	6892	6892	6892	6892
NR 24	Kedelcentral	92291439	Radiatoranlæg C vest	5662		**mwh**	532.52	532.52	532.58	533.98	538.59	542.89	548.8
NR 25	Kedelcentral	92291451	Radiatoranlæg C øst	5661		**mwh**	930.83	930.83	930.89	932.33	936.77	941.73	948.34
NR 26	Kedelcentral	92291607	Centralvarme	Fællesmåler		**mwh**	23897.8	23919.8	23942	23974.9	24118.5	24255.6	24442.4
NR 27	Kedelcentral	42141029	Ekspansionbeholder			**m3**	27.934	27.934	27.933	27.934	29.197	29.468	29.694
NR 28	Kedelcentral	9090055k	Gas måler	1230020		**m3**	875006	877397	879789	883265	898038	912227	931427
	husk HNG aflæsning		**Forbrug**					**2391**	**2392**	**3476**	**14773**	**14189**	**19200**
													Totalt i alt
Gå i 98 kld over for elevator teknik rum													
NR 29	Bygn. C kælder	92292048	Koldt vand	5706	VE05	**mwh**	695.2	700.9	705.2	724.6	724.6	724.6	724.6
NR 30	Bygn. C kælder	92291452	Centralvarme	5706	VE05 Varme	**mwh**	530.78	530.79	530.82	530.86	533.1	533.19	534.2
NR 31	Bygn. C kælder	92291457	Radiatoranlæg C syd	5660	RAD	**mwh**	1600.3	1600.35	1603.23	1604.51	1612.66	1622.17	1632.78
NR 32	Bygn. C kælder	92291449	Radiatoranlæg C nord	5659	RAD	**mwh**	2413.15	2413.21	2415.86	2417.65	2428	2439.08	2451.56
NR 32A	Bygn. C kælder	91255136	Vandmåler			**m3**	37108	37193	37273	37344	37442	37515	37626
NR 33	Kælder teknikrum	130875	Vent. anlæg		el anlæg 5 og 6	**kwh**	186308	187130	187568	188285	188763	189152	189578
NR 34	Bygn. C kælder	92292049	Koldt vand	5705	VE06	**mwh**	3992.9	3992.9	3992.9	3992.9	3992.9	3992.9	3992.9
NR 35	Bygn. C kælder	92291448	Centralvarme	5705	VE06	**mwh**	362.28	362.41	362.49	362.5	362.58	363.05	363.45
Tag elevator til O Tavle rum til højre													
NR 36	Stuen bygn. C	1009419	BMS (3.sal)	741-15426904	el	**kwh**	66920	67500	67966	68485	68994	69446	70006
NR 37	Stuen bygn. C	1002504-50564	TRYK (1. og 2. sal)	600737728	el	**kwh**	147883	148764	149513	150322	151117	151868	152757
NR 38	Stuen bygn. C	188602	Fællesanlæg		el	**kwh**	322598	322598	322758	322814	322814	322814	323583
NR 39	Stuen bygn. C	43414-51091	Fællesanlæg		el	**kwh**	867580	871370	873710	876980	879450	881520	883780
NR 40	Bygn. tavlerum		Ribberør vindfang			**mwh**	295.222	295.241	296.122	296.673	299.726	303.149	306.957
Gå til redskabs rum i kld													
NR 41	Affaldsrum A	92291447	Radiatoranlæg A vest	5654		**mwh**	1599.13	1599.13	1599.16	1599.73	1603.58	1608.33	1615.47
NR 42	Affaldsrum A	92291446	Radiatoranlæg A øst	5653		**mwh**	2976.8	2976.8	2977.03	2979.96	2999.85	3025.41	3053.91
Gå til kølecentral i cykel kld 94													
NR 43	Kølecentral	92291702	Fælles kølevandsmåler		Hovedmåler KØL	**mwh**	366119	371181	375596	379937	381081	381234	381243
NR 44	Kølecentral	92291440	Rampevarme			**mwh**	324.53	324.53	324.53	324.97	330.12	335.49	342.78

NR 45	Kølecentral	2637365	Hovedvand forsyning			**m3**	20646	20791	20948	21132	21344	21499	21795
NR 46	Kølecental	141521	Kølerumsforbrug			**kwh**	54311	54390	54452	54521	54588	54638	54706
Gå ud til hovedtavlerum i mellem gang til brandcentral													
NR 47	Hovetavlerum/Sprinkler	92567	Fællesanlæg		sprinkleranlæg	**kwh**	2046	2064	2073	2082	2093	2099	2105
NR 48	Hovetavlerum/kølecen.	092654-51099	Fællesanlæg		køleanlæg	**kwh**	38422	56959	71780	89017	97282	102977	110622
Gå ind i 94 (cowi) gå til venstre travlerum nr 19 (nesa)													
NR 49		086386-51095	COWI		el forbrug på A-blok	**kwh**	291215	291739	292541	292541	292952	293267	293797
NR 50	Cowi rum 019	3105999	Fællesanlæg		lys og øvrigt	**kwh**	6759	6820	6854	6890	6930	6958	7008
Gå til teknikrum nr 29													
NR 51	Kælder, teknikrum	141522	Vent.anlæg bl. sløjfer		??	**kwh**	546425	547901	548641	549093	550554	551428	552605
NR 52	Bygn. A teknikrum (29)	40220243	Vindfang A	5708		**mwh**	8.237	8.237	8.237	8.237	8.237	8.45	9.031
NR 53	Bygn. A teknikrum (29)	92291441	Foyer A	5708		**mwh**	493.43	493.43	493.5	493.51	493.7	494.09	494.82
Gå til teknikrum nr 34													
NR 54	Bygn. A kælder	91255138	Vandmåler			**m3**	49708	49721	49736	49750	49764	49787	49817
NR 55	Bygn. A kælder (34)	92291453	Radiatoranlæg nord	5651		**mwh**	2580.34	2584.71	2588.29	2592.28	2602	2611.33	2626.23
NR 56	Bygn. A kælder	92291445	Radiatoranlæg syd	5652		**mwh**	1320.66	1322.72	1324.38	1326.17	1329.72	1334.26	1341.08
Tag elevator til 5 sal skråt til højre rum 533													
NR 57	Taghus A	96164	Vent. anlæg 5701			**kwh**	2888814	292261	293674	294977	296064	297180	299349
NR 58	Taghus A	96165	Vent. anlæg 5702			**kwh**	556094	556122	556168	556754	556754	556754	556754
NR 59	Taghus A	92291609	Kølevand	5701		**mwh**	17894	18100.1	18110	18160.4	18161.4	18168.1	18169.1
NR 60	Taghus A	92291461	Centralvarme	5701		**mwh**	348.07	348.03	348.43	349.71	358.87	364.55	366.61
NR 61	Taghus A	92291608	Kølevand	5702		**mwh**	2617.9	2617.9	2617.9	2618.1	2618.7	2618.7	2618.7
NR 62	Taghus A	92291460	Centralvarme	5702		**mwh**	425.69	425.7	425.79	427.16	427.16	427.16	427.16
				Dato			28-06-2016	03-08-2016	01-09-2016	03-10-2016	04-11-2016	29-11-2016	02-01-2017
				Aflæst af			hh	ls	hh	hh	hh	hh	hh