

Consumption Information in Practice: The Norwegian Experience

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Essential elements of success

- Comprehensive coalition: Government agency, research institution, forward-thinking energy companies, environmental NGO, international organisations
- Air-tight research design and results
- Re-confirmed over time and space

Oslo/Helsinki Electrical Billing Project

Time table for the experiment

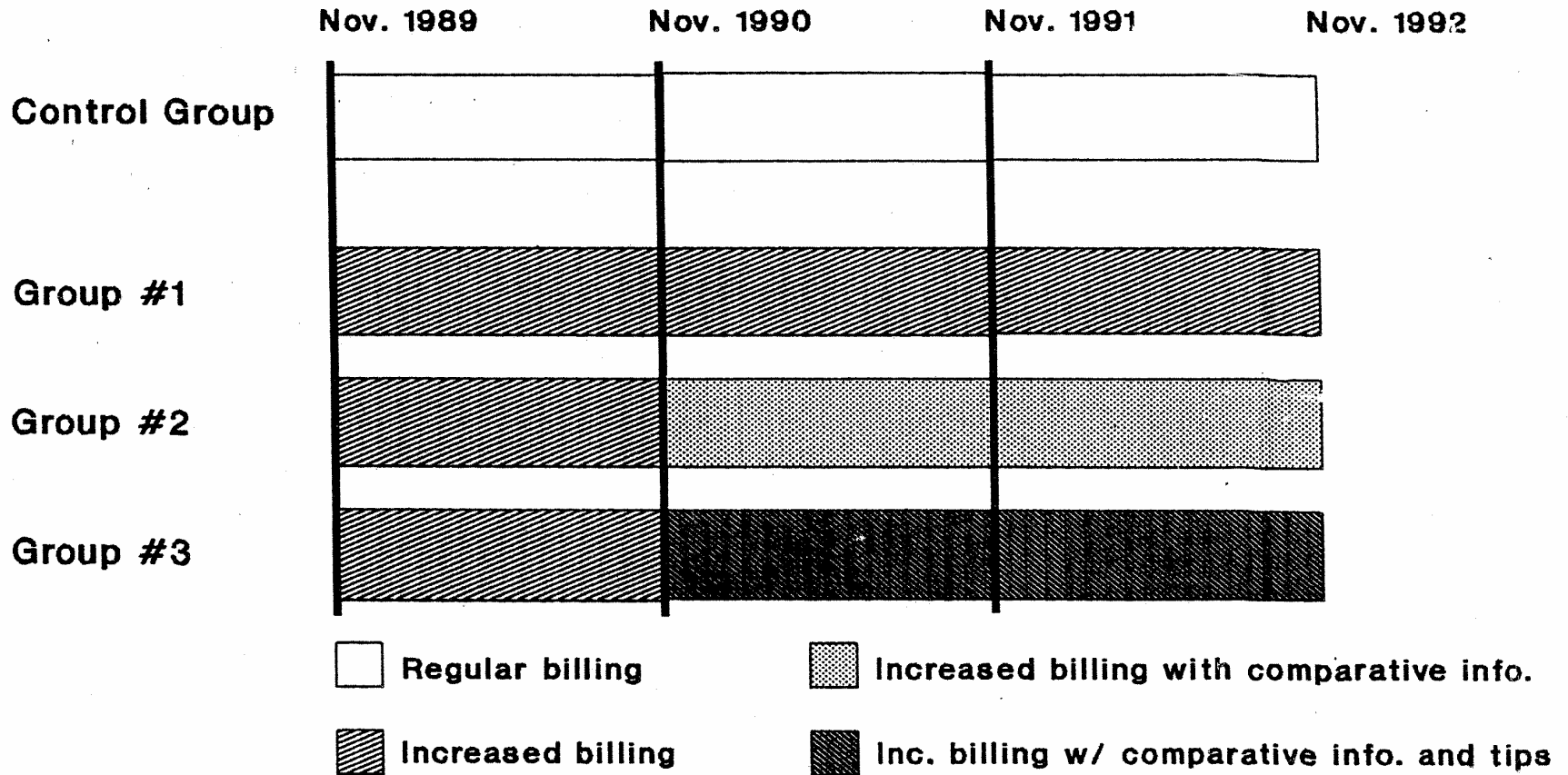


Illustration #7

kundenr.: 5144571
~~Olsen Johan Gjemre~~
~~Lyder Sagensgt. 25~~
~~042 STAVANGER~~

akturanr.: 3382127
dato: 16.01.97
ålelnr.: 560074
leggsadresse: Lyder Sagensgt 25

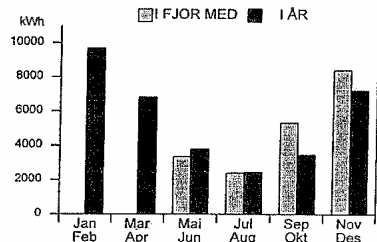
STAVANGER ENERGI

FAKTURA

FOR PERIODEN
NOVEMBER - DESEMBER
1997

Breiflåtveien 18, 4017 Stavanger
Tlf.: 51 88 67 00, faks.: 51 88 67 93
Org.nr. NO 948 645 483 MVA
Kontonr.: 0802 5642954

HER KAN DU SAMMENLIGNE FORBRUKET



Temperatur og periode korrigert slik
du kan sammenligne forbruket fra år til år.

Gebyr for sen betaling beregnes 12,0% på forsinkelsesrente.
Gebyr for purreng beregnes gebyr kr. 50,00.

Rekvireringsnummer må oppgis som referanse dersom
du gir giro ikke nyttes ved innbetaling.

KVITTERING TIL konto 1511302

6609140444

Kvitteringstrykk

Norske kroner Øre
3053 00

Gebyr for innbetaling

POSTGIRO NORGE / NOREG

INNBETALING

12 • Belop

Betalingsfrist: 28.02.97
Kundenr.: 5144571
FakturaNr.: 3382127

Underskrift ved girering? innbetalingsnummer

Betalt av

Olsen Johan Gjemre
Lyder Sagensgt. 25
4012 STAVANGER

Betalt til

Stavanger Energi
Postboks 3124, Mariero
4004 Stavanger

Belast
konto

0033821273

3053 00 6 <6609140444> 1511302 +00+

Se baksiden for mer utfyllende informasjon

NETTLEIE kr 746,16

KRAFT kr 1328,45

AVSKIFTER OG GEBYRER kr 988,52

A betale kr 3 053,13

Herav til: kr 570,91

Betalingsfrist: 28.02.97

Why were energy companies reluctant in spite of convincing findings?

- Momentum
- Concerns about economic disadvantages
- Worries about self-reading of meters
- All attention directed at remaking themselves as market-based companies

Highlights, Evaluation of normative feedback (1)

Interest

| Stavanger | N1 | N2 |
|---|----|----|
| Agree/completely agree: the information is useful | 88 | 83 |
| Disagree/completely disagree: the information is not interesting | 85 | 88 |
| I am interested in receiving the information should it be offered | 94 | 98 |

Comprehension

| Stavanger, The figure was difficult to understand | N1 | N2 |
|---|----|----|
| Agree/completely agree | 16 | 9 |
| Unsure/don't know | 8 | 6 |
| Disagree/completely disagree | 77 | 83 |

Motivation

| Stavanger, If my electricity consumption were higher than the average, it would motivate me to save energy | N1 | N2 |
|--|----|----|
| Agree/completely agree | 72 | 77 |
| Unsure/don't know | 15 | 16 |
| Disagree/completely disagree | 11 | 6 |

Comments on the experimental bills

"It made you notice how much you really use."

"It makes you observe your consumption habits."

"The bill made us think through what we do."

"Everyone in the family has become a little more conscious."

"Every time we got the bill, we sat around the table and talked about it. We thought it was fun."

"It was good to get that comparison. We looked at it every time."

"It was very nice. You see what you used, last year and this year. That made my energy use more understandable."

"That diagram was nice. It was positive and inspiring to get that comparison. We were under every time (in the final year)."

Three Kinds of Energy Consumption Feedback

Historical feedback shows how much the recipient consumes in every billing period of the current and previous years

Normative feedback provides information on how much energy the recipient household uses in relation to other households of similar type and size.

Disaggregation breaks down energy use into categories such as heat, light, kitchen appliances, hot water use based on responses to a brief questionnaire and the respondent's consumption data.

Faktura

Avregning

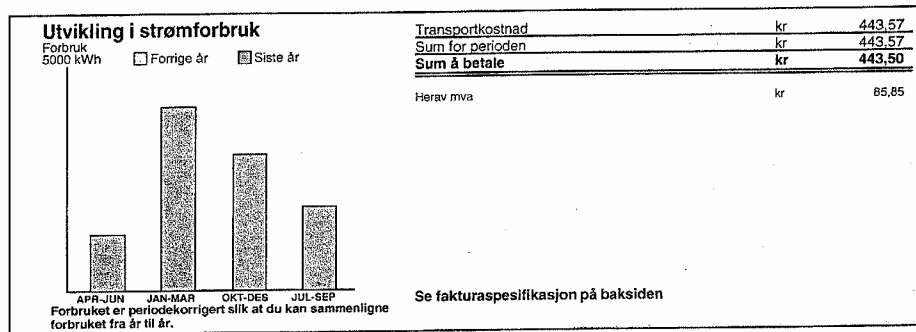


Viken Nett AS
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NO 980 499 698 (MVA)
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00149 / 3344

Wilhite Harold
Linstows G 4
0166 OSLO

Kunde nr: 08495269 0001 Faktura nr: 008741116 Faktura dato: 26.07.2003
Målepunkt ID: 51604500 Måler nr: 000649425 Anleggskilt: 025185
Anleggsadr.: Linstows Gate 4, Etg.:03



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Ved bruk av annen betalingsform, oppgi alltid KID-nummer.

Strømlieferander: Hafslund Strøm
Nettselskap: Viken Nett AS

Kvittering

Innbetalt til konto Beløp Betalerens kontonummer Blankettnummer

70580652415 443,50 6217594663

Betalingsinformasjon

Kundenr.: 8495269 - 0001
Fakturanr.: 8741116

GIRO

Betalingsfrist: 14.08.2003

Underskrift ved girering

Betalt av

Wilhite Harold
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Betalt til

Hafslund Fakturaservice AS
Postboks 2468 Solli
0202 OSLO

Belast
konto

Kvittering
tilbake

Kundentifikasjon (KID)

Kroner

Øre

Til konto

Blankettnummer

0849526900010087411160

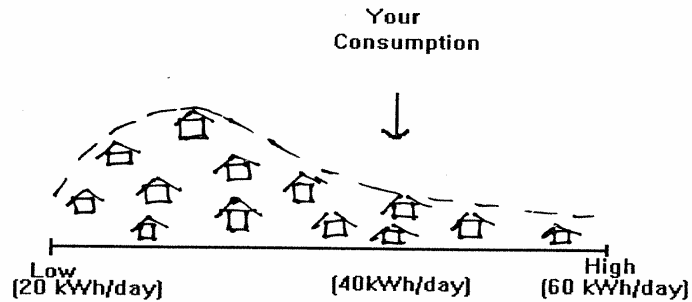
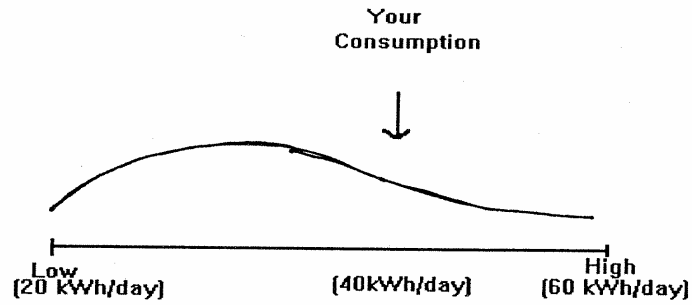
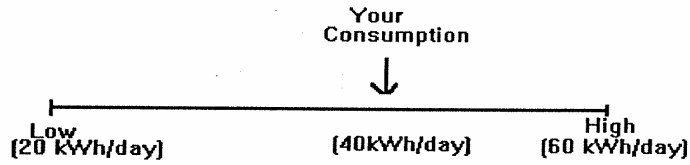
443 50 < 7 >

70580652415

<6217594663>



Normative Feedback, Neighbor comparison, three versions:



Normative Feedback, variables for group placement

Total number of people in the household (P). Three categories: $P \leq 2$, $3 < P \leq 4$, $P > 4$

Type of dwelling. Four categories: Single family detached, row house, apartment in small building (2-6 apartments), apartment in large building (more than 6 apartments).

Dwelling size (S) in m². Four categories: $S \leq 50$, $50 < S \leq 100$, $100 < S \leq 150$, $S > 150$

Use of electric heating. Three categories: 100% electric, mix of electric and other, no electric.

Hot water a) included in household electricity bill or b) not included in the bill.

An example of a comparison group is:

$P < 2$, row house, $100 < S < 150$, 100 % electric heating, hot water included in electricity bill.

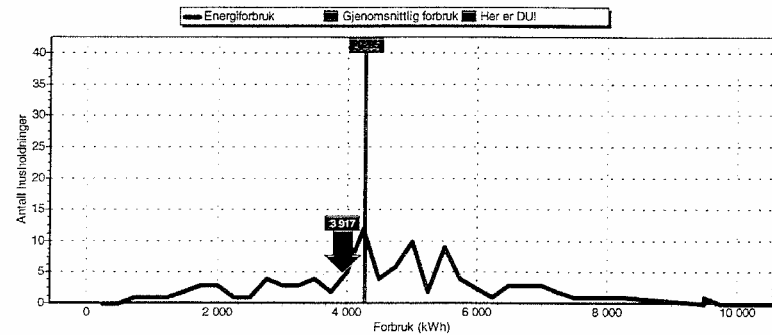
STAVANGER ENERGI

Kari Strøm
Enøkveien 10

1

4000 STAVANGER

Her kan du sammenligne deres strømforbruk med andre husholdninger.
Forbruket omfatter de siste 2 måneder



35% av husholdningene bruker mindre strøm enn deres
Du/dere bruker 8% mindre strøm enn gjennomsnittet for din gruppe

Din husholdning er sammenlignet med andre som:

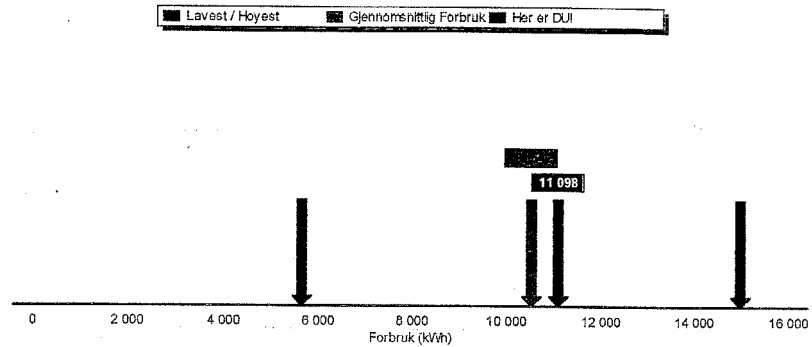
*består av 1-2 mennesker
bor i enebolig
boligens størrelse er større enn 150 m²
har 100% elektrisk oppvarming
har ikke varmt vann inkludert i husleie*

Antall husholdninger i din gruppe er 93

Steen Reidar
Skovveien 22
1234 OSLO

Eksempel

Her kan du sammenligne ditt strømforbruk med andre tilsvarende husholdninger. Forbruket omfatter siste år



Du bruker 5% mer strøm enn gjennomsnittet i din gruppe.
58% av husholdningene bruker mindre strøm enn deg.

Din husholdning er sammenlignet med andre som:

- * består av 3-4 personer
- * bor i blokkleilighet
- * har bolig på mellom 50 og 99 m²
- * har 100% elektrisk oppvarming
- * har varmtvann inkludert i husleien

Antall husholdninger i din gruppe er 39

Originalen i farger

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Why successful?

- Customers interested in consumption feedback and happy with new bills
- Sound evidence of energy savings
- Positive for energy companies
- Positive for public authorities