



ORKUSTOFNUN
Vatnsorkudeild

Rafhönnun h.f. Verkfræðistofa

VINNSLA OG FLUTNINGUR RAFORKU TIL ALDAMÓTA

Samanburður virkjunarleiða

**IV Áhrif aukins orkufreks iðnaðar
Hluti III - Viðauki 2: Álagsflæðimyndir**

OS81024/VOD10

Reykjavík, nóvember 1981



ORKUSTOFNUN

Grensásvegi 9, 108 Reykjavík

Rafhönnun h.f. Verkfræðistofa

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Þessi viðauki tilheyrir III. hluta fjórða bindis skýrslunnar "Vinnsla og flutningur raforku til aldamóta." Vegna viðbóta, sem gerðar voru á síðustu stundu, vannst ekki tími til að láta viðaukann fylgja með í því bindi.

Í bindi IV "Áhrif aukins orkufreks iðnaðar" er fjallað um sjö iðnaðarstefnur og fjórar virkjunarleiðir innan hvernar þeirra eða alls 28 tilvik. Álagsmyndirnar hér að aftan eru til frekari skýringar á umfjölluninni í hluta III.

Á meðfylgjandi yfirlitstöflu má sjá hvaða myndir tilheyra hverju tilviki. Rétt er að minna á það sem fram kemur í inngangi hluta III. Ákveðins misræmis gætir í áfangaskiptingu Fljótdalsvirkjunar. Í upphafi var reiknað með þrem áföngum og 95 MW vélarafli í hverjum áfanga.

Áfangaskiptingunni var breytt meðan verkið stóð yfir þannig að nú er gert ráð fyrir tveim 72,5 MW vélum í fyrsta áfanga, eða 145 MW, og 72,5 MW afli í öðrum og þriðja áfanga hvorum. Því á að vera 217 MW afl í fyrstu tveim áföngum Fljótsdalsvirkjunar en ekki 190 MW eins og sums staðar er gengið út frá. Þessi breyting hafði ekki áhrif á tímasetningar framkvæmda og þótti ekki ástæða til að leiðrétta misræmið sem fram var komið, enda verkið komið vel á leið.

Myndir sem merktar eru með tölum 1-8 er ekki alveg réttar fyrir viðkomandi tilvik, en þær má nota til hliðsjónar.

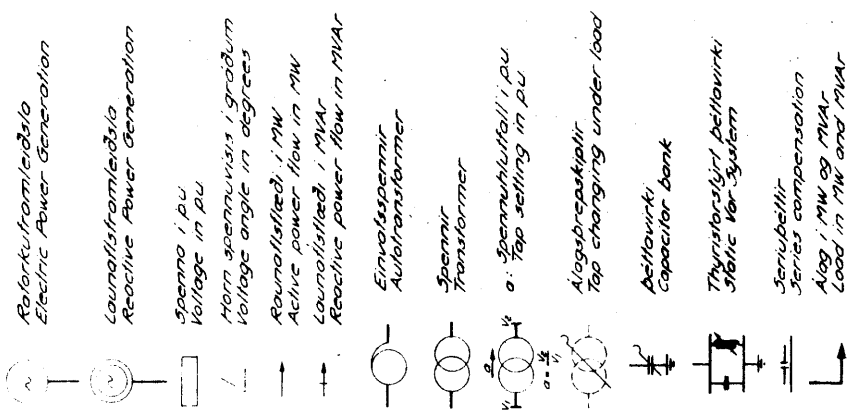
Skýringar:

- x1 Stóriðjan á Brennimeil á að vera 42 MW, stóriðjan á Geithálsi 160 MW.
- x2 Línukerfið austan Blöndu skiptir litlu máli.
- x3 Línuna Blanda-Akureyri vantar.
- x4 Línuna Fljótsdalsvirkjun-Akureyri vantar.
- x5 Línuna Hrútatunga-Blanda vantar.
- x6 Línurnar Hrútatunga-Blanda-Akureyri vantar.
- x7 Línuna Hrútatanga-Blanda vantar.
- x8 Þéttavirkið á Hryggstekk er ekki thyristorstýrt.

Yfirlitstafla yfir álagsflæðimyndir

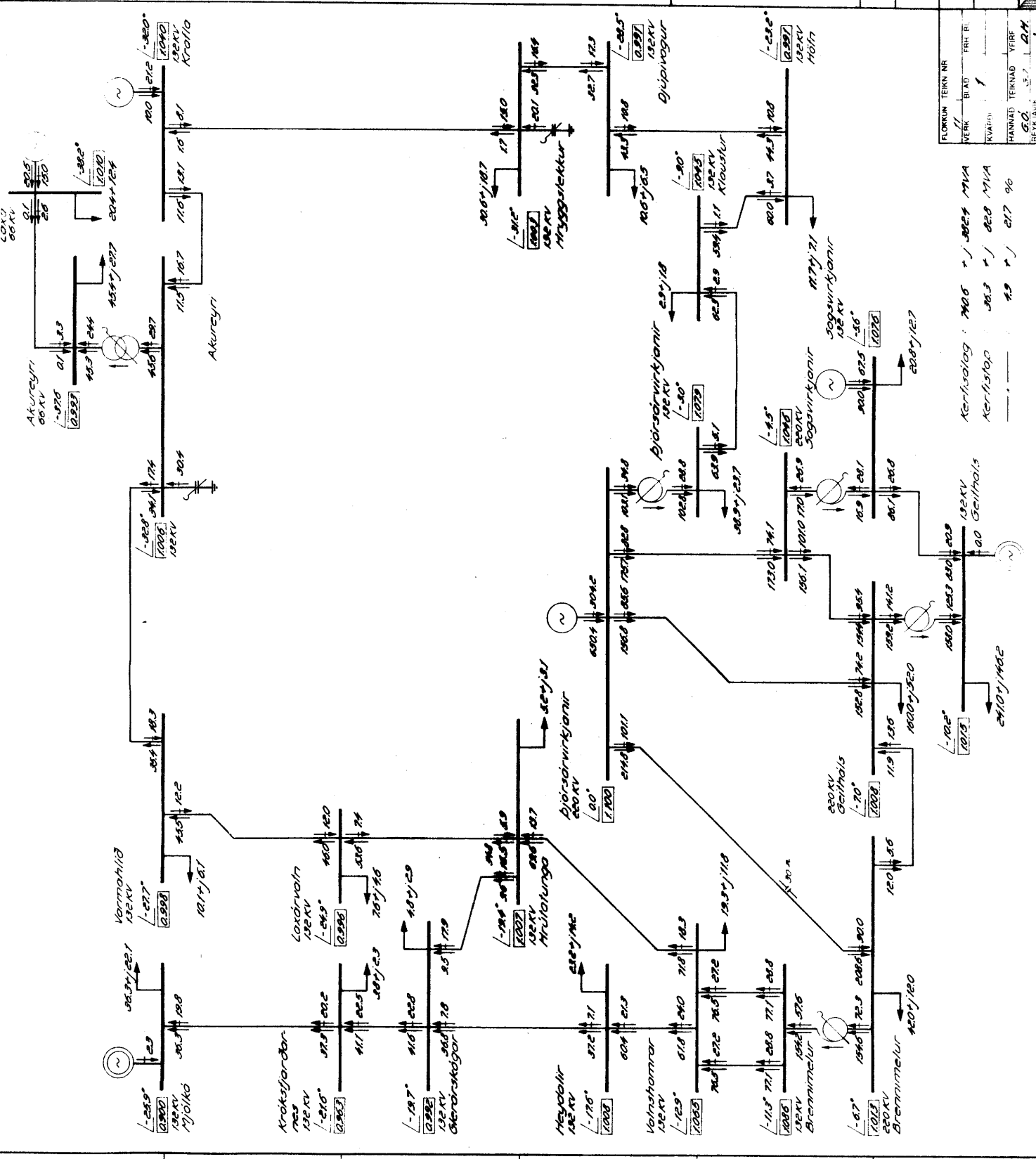
	1985	1986	1989	1990	1991	1992	1993	1995	1996	1997	1998	2000
IS0-VL01			1, 67 ^{x1}		2				3		4	5
IS0-VL02			1, 67 ^{x1}		2	6, 7		8		9	10	5
IS0-VL03			1, 67 ^{x1}					11	12, 13			14
IS0-VL04			1, 67 ^{x1}		2					15		16
IS1-VL01	17, 18		19, 20			21		22, 23				24, 25, 26, 27
IS1-VL02	17, 18		28, 29			30, 31, 32		22, 23				24, 25, 26, 27
IS1-VL03	17, 18		33, 34			35		23 ^{x2}				36, 37, 38
IS1-VL04	17, 18		19, 20			39		22, 23				24, 25, 26, 27
IS2-VL01	17, 18		40			30, 31, 32		22, 23				24, 25, 26, 27
IS2-VL02	17, 18		41, 42			43, 44		22, 23				24, 25, 26, 27
IS2-VL03	17, 18		45, 46			47, 48, 49		23 ^{x2}				36, 37, 38
IS2-VL04	17, 18		40			50		22, 23				22, 23, 24, 25
IS3-VL01	17, 18		51			30, 31, 32		22, 23				22, 23, 24, 25
IS3-VL02	17, 18		52	53, 54				22, 23				22, 23, 24, 25
IS3-VL03	17, 18					55, 56		22, 23				22, 23, 24, 25
IS3-VL04	17, 18			57, 58				23 ^{x2}				22, 23, 24, 25
IS4-VL01	17, 18		60			61	62, 63					59, 37 ^{x3} , 38 ^{x3}
IS4-VL02	17, 18		65			61 ^{x4}	62, 63					64, 25 ^{x5} , 26 ^{x5} , 27 ^{x5}
IS4-VL03	17, 18		66, 67		68		62, 63					64, 25 ^{x5} , 26 ^{x5} , 27 ^{x5}
IS4-VL04	17, 18		60			70	62, 63					64, 25 ^{x5} , 26 ^{x5} , 27 ^{x5}
IS5-VL01	17, 18		71			72		23 ^{x2}				73
IS5-VL02	17, 18		41, 42			74		23 ^{x2}				75
IS5-VL03	17, 18		45, 46			76, 77		23 ^{x2}				78
IS5-VL04	17, 18		71			79		23 ^{x2}				73
IS6-VL01		80, 81	19, 20		21		63 ^{x2}	82				83, 84, 37 ^{x6} , 38 ^{x6}
IS6-VL02		80, 81	28, 29		30 ^{x8} , 31 ^{x8} , 32 ^{x8}		63 ^{x2}	82				83, 84, 37 ^{x6} , 38 ^{x6}
IS6-VL03		80, 81	33, 34		35		63 ^{x2}	85				36 ^{x7} , 37 ^{x7} , 38 ^{x7}
IS6-VL04		80, 81	19, 20		39		63 ^{x2}	82				83, 84, 37 ^{x6} , 38 ^{x6}

SKYRSLIÐ OG LÖGFRUMUR
LÖGFRUMUR



Afhugasemdir:
Krafta = 10 MW
Eðlilegt rekstrarskið

ORKUSTOFNUN	
VIRKJUNARLEIÐIR TIL ALDAMÖTA	
Hydro - power expansion alternatives	
VIRKJUNARLEIÐ:	01
Expansion alternative:	AR
NY STÖRÐJA	150
New power intensive industry:	Year
	1989



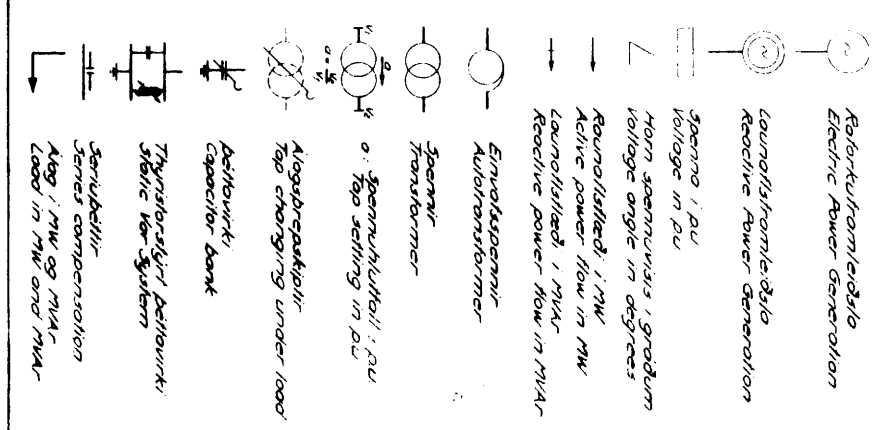
FLOKUN	TEKNI NR
NEFND	1
ÁR	1989
ÁR	01
ÁR	1989

Kerfiðlag:	7405	+ J	3027	MVA
Kerfiðlag:	363	+ J	820	MVA
	23	+ J	217	96

FLORUN	TEKNI NR
NEFND	1
ÁR	1989
ÁR	01
ÁR	1989

SKILNINGAR OG TOLKUNNI

Legend



Afhugasemur:
Krafli 10MW
Edilligt rafhorðistend

ORKUSTOFNUN

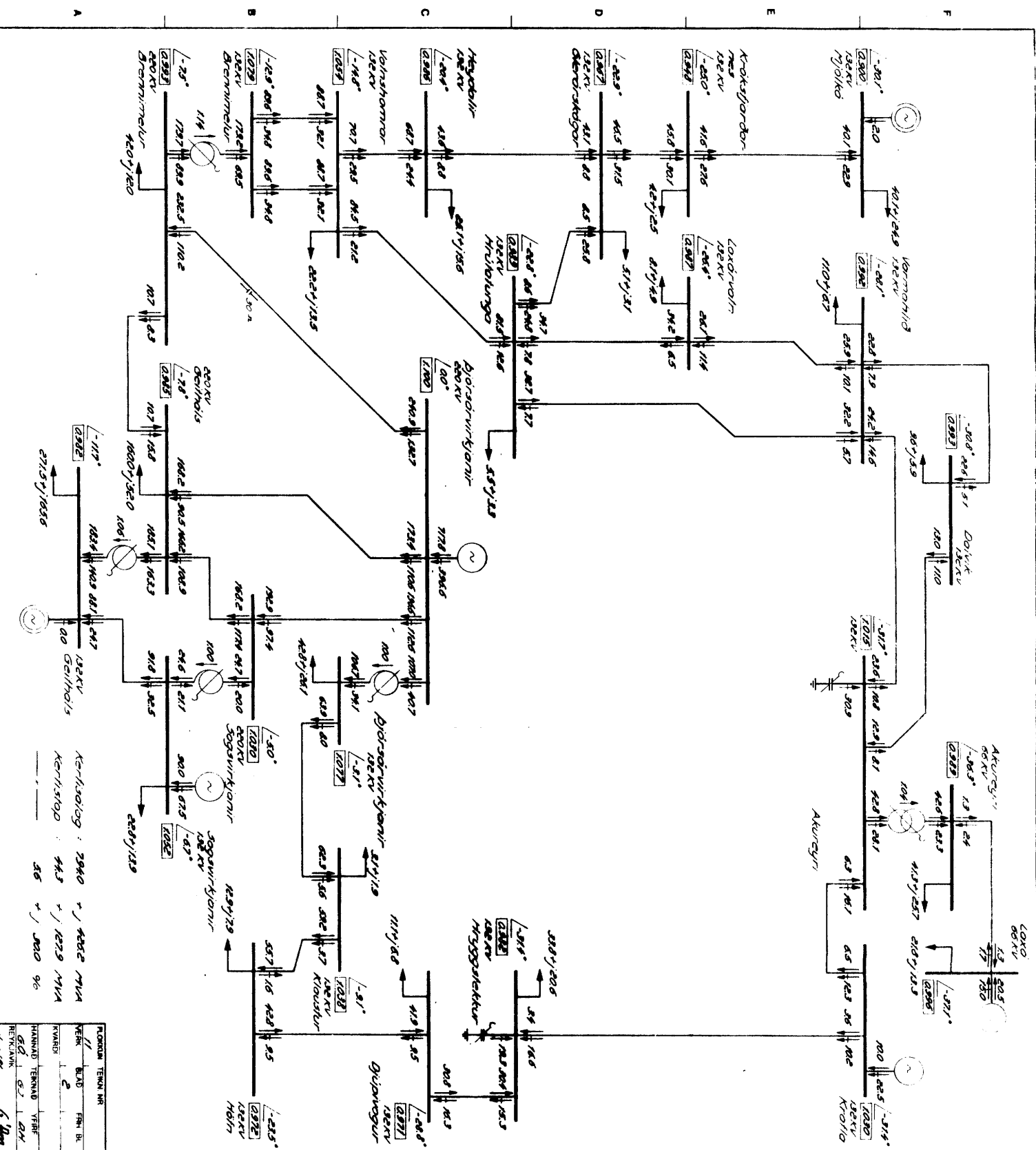
VIRKUNARLEIÐIR TIL ALDAMÓTA
Hydro-power expansion alternative

VIRKUNARLEIÐ : 01 AR : 1991
Expansion alternative : 01 Year : 1991

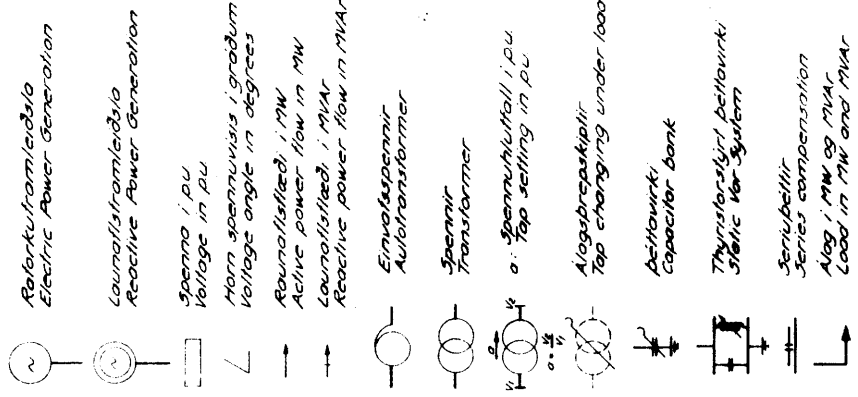
NY STORIDA : 130
New power intensive industry :

Rafönnun

FRÖGVA TERN NR	FRÖGVA	TERN NR	FRÖGVA
FRÖGVA	FRÖGVA	FRÖGVA	FRÖGVA
FRÖGVA	FRÖGVA	FRÖGVA	FRÖGVA
FRÖGVA	FRÖGVA	FRÖGVA	FRÖGVA



Skýringar á teikningu
Legend



Almúgusemblir:
Krafta 10 MW
Eðlilegt rekstrarástand

ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

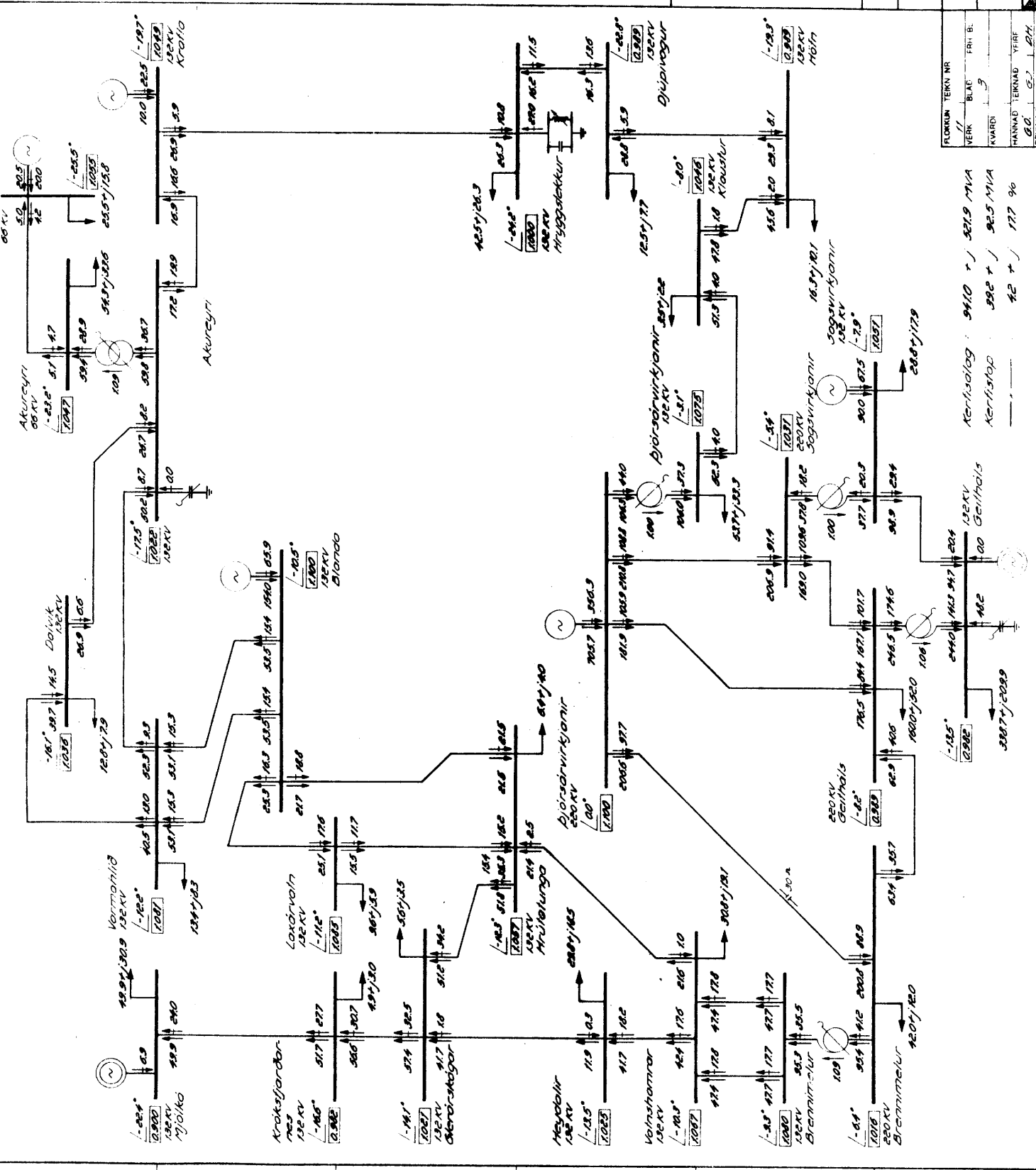
VIRKJUNARLEIÐ : 01 AR : 1990
Expansion alternative : Year

NY STÖRÐIA : 150
New power intensive industry :

FLOKUR TERN NR
VERK : BLAÐ ERI B.
KVARDI :
HANNAÐ TERNAD YFIR
REYKJAVIK : 0.0 G.0
des 87 6 Am.

Kerfisslag : 94.10 + / 521.9 MVA
Kerfisstap : 392 + / 92.5 MVA
42 + / 177 %

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Skyrtingar á loftunum
LSPDAD

Rotorkjarnleiðis
Electric Power Generation

Loarnálframlægis
Reactive Power Generation

Spenna í DV
Voltage in p.u

Þorn joornuviss í gróðim
Vollge angle in degrees

Runnsláttir í MW
Active power flow in MW

Loarnálframlægis í MVA
Reactive power flow in MVA

Einvaltsþannur
Autotransformer

Þannur
Transformer

Spennuhættir í DV
o: Tap setting in p.u

Afgæðstæki
Tap changing under load

Þéttunni
capacitor bank

Þyrskostun
Static var-system

Þerrbellur
Series capacitor
Afg. í MW og MVA
Load in MW and MVA

Afhugasemur
Kaffi 10 MW
Búfræðing I og II
Río yfir á ölu: Vesturland 158 MW
Vestfirir 52 MW
Disill:
Reykjavik 35 MW

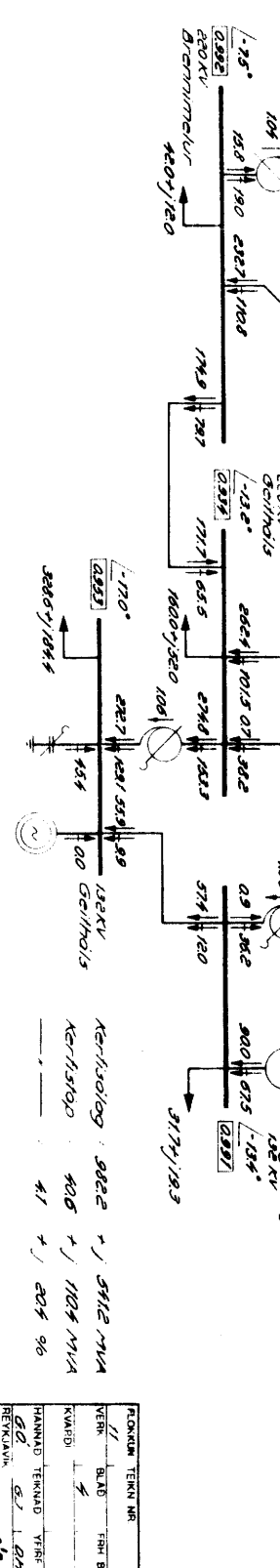
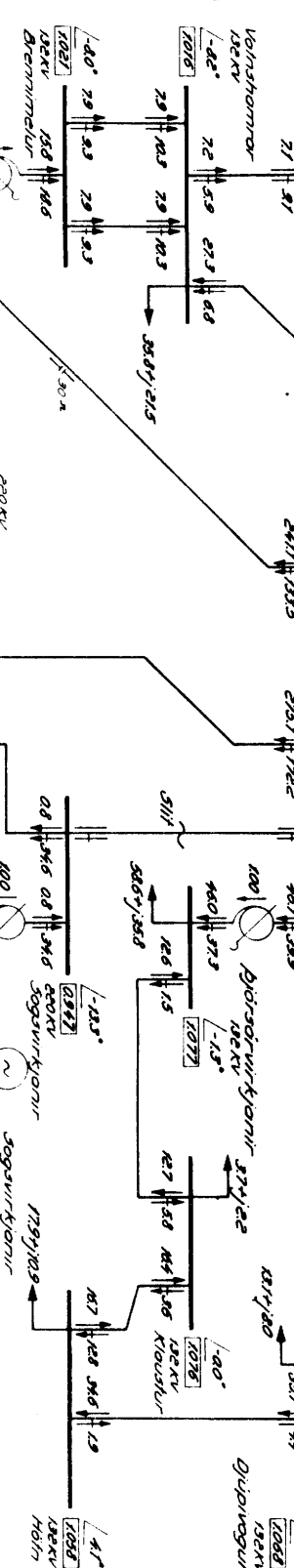
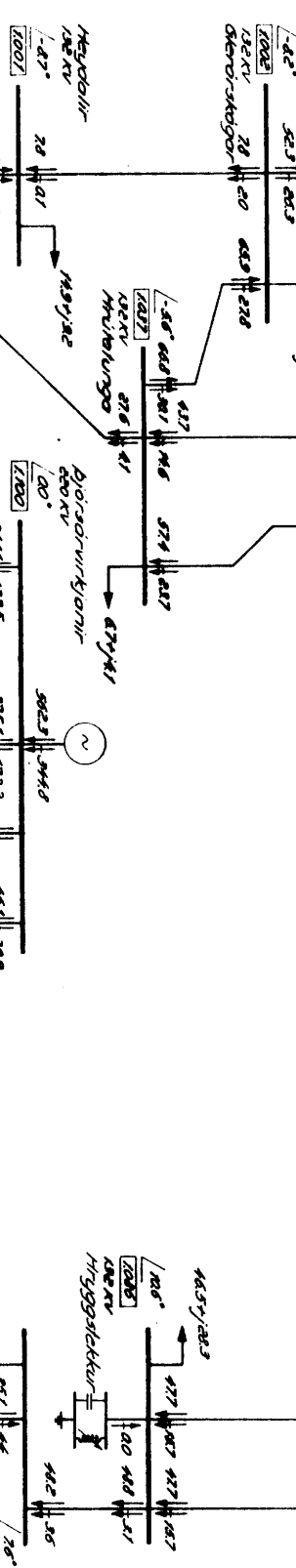
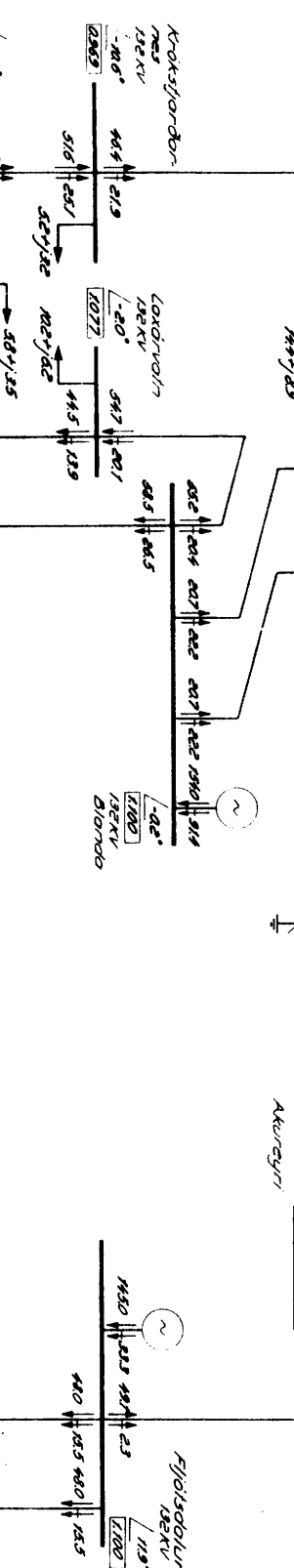
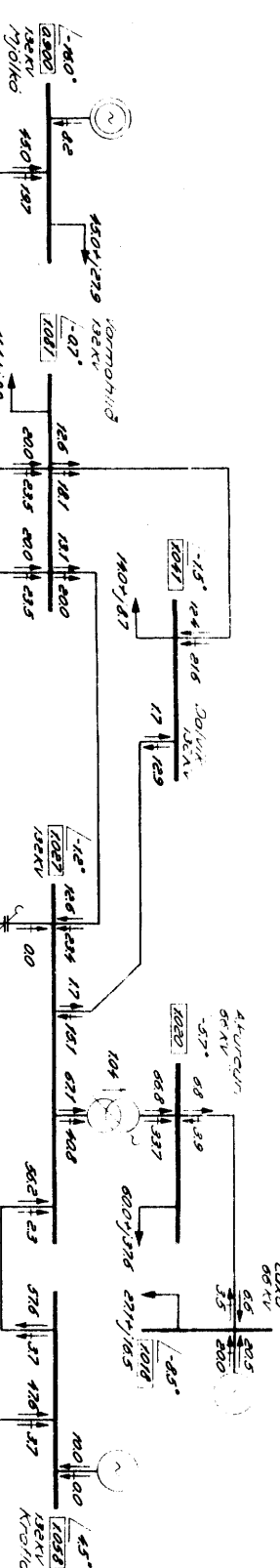
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VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ 01
Expansion alternative: 01

NY STORIDIA 150
New power intensive industry:
YEAR: 1998

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NEW POWER INTENSIVE INDUSTRY:
YEAR: 1998



FRONKUM	TEKNI MS
VEIR	BLAÐ
KWAFD	FRIÐ BL
HANNAÐ	TEKNAÐ
REYKJAVN	6.7
ÓT	DM
ÓT	DM

ARKUSTOFNUN
NEW POWER INTENSIVE INDUSTRY:
YEAR: 1998

Styringar e lafkunazzi
Control

Robarkraftaeldisla
Electric Power Generation

Lounalistsframloefsla
Reactive Power Generation

Spenna i pu
Voltage in pu

Florn spennuvissis i grautum
Voltage angle in degrees

Rounalistsfledi i MW
Active power flow in MW

Lounalistsfledi i MVAR
Reactive power flow in MVAR

Einvalsspennir
Autotransformer

Spennir
Transformer

Spennuhvolfall i pu
Tap setting in pu

Alogafraspakillir
Tap changing under load

Deilavirki
Capacitor bank

Thyrastarstjurti Deilavirki
Static Var System

Seriesbellir
Series compensation

Alog i MW og MVAR
Load in MW and MVAR

Afhugasemdir

Kraftlo 10 MW
Edlilegt rekstranad

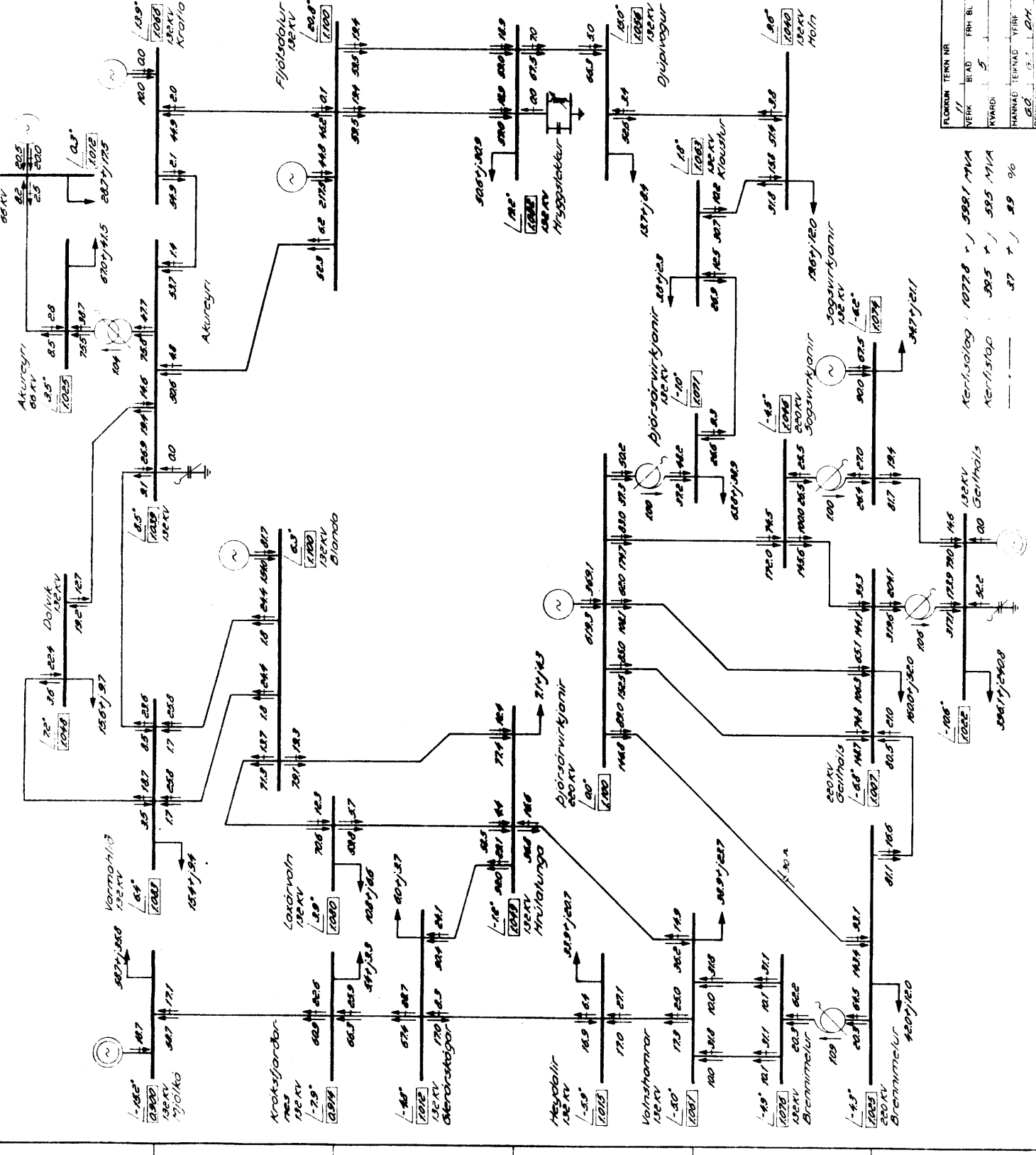
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VIRKJUNARLEIDIR TIL ALDAMOTA
Hydro-power expansion alternatives

VIRKJUNARLEID : 01 AR : 2000
Expansion alternative : Year

NY STORIDJUA : 150
New power innovative industry

Rafhönnun
ARNAKI 42 SM 84833

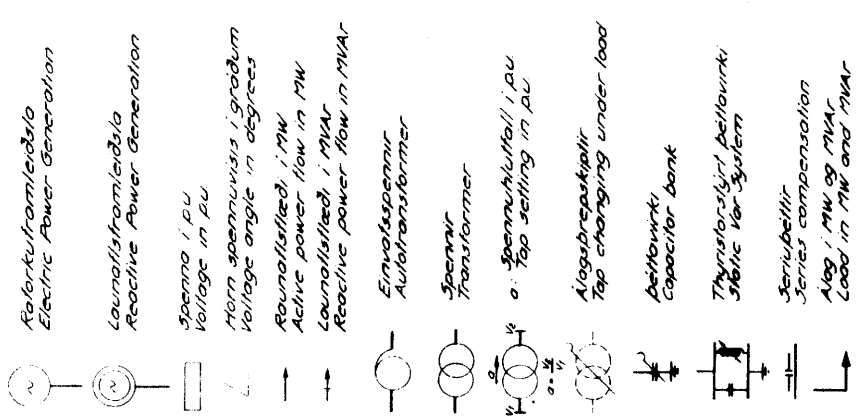


FLORUN	TEKNI NR	
VERK	BLAD	FRH BL
KVARDI	5	
HANNAÐ	TEKNAÐ	YFIR
REYKJAVIK	04	
05	08	

Kerfisloeg	: 10778 r / 5981 MVA
Kerfisloeg	: 595 r / 595 MVA
	: 37 r / 89 %



Skýlingar á listnum
Legend



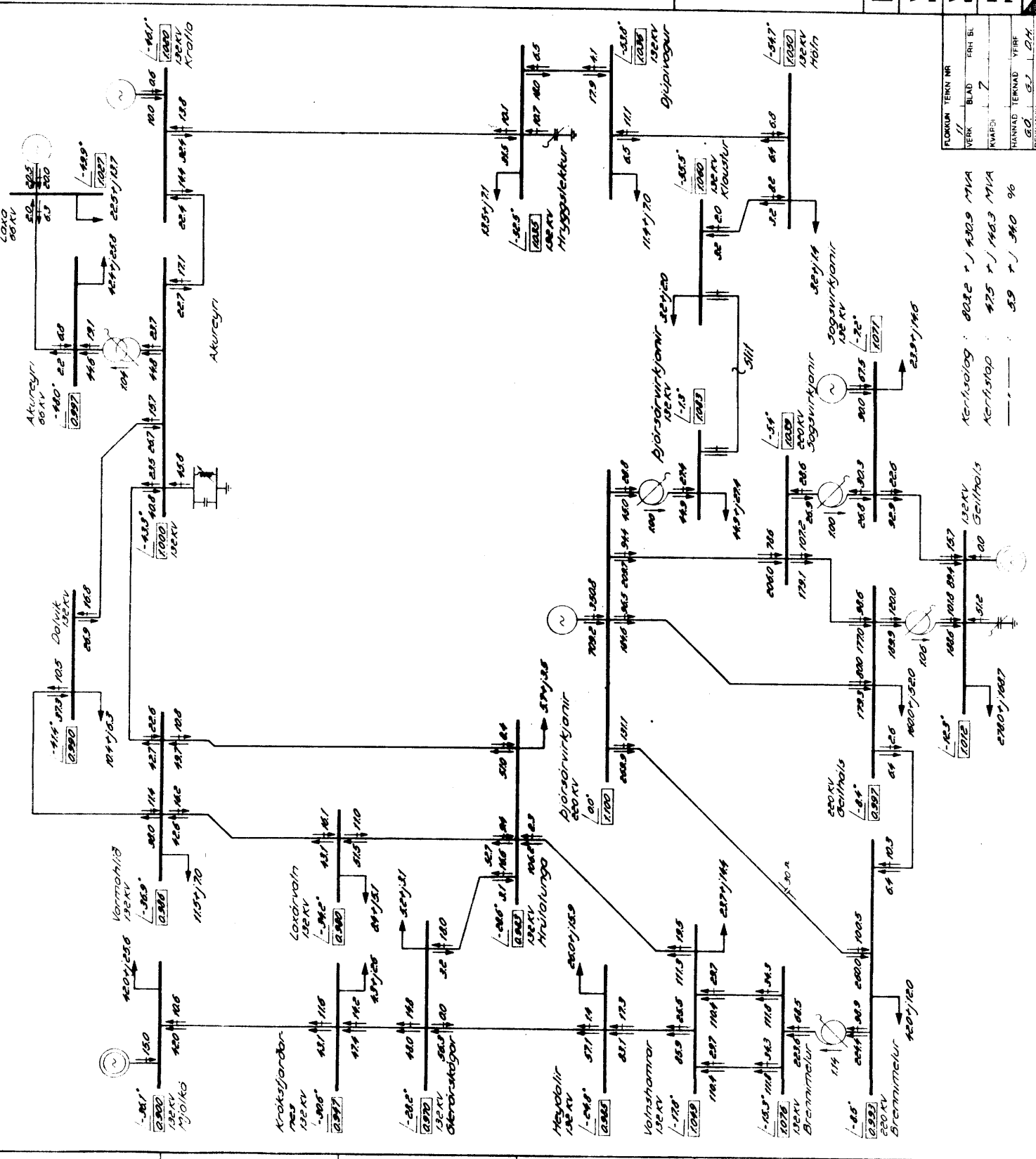
Alhugusemni:
Krafta 10 MW
Svæðurhlina stílin
R10 yfir á öllu: Hryggstækkur 10 MW
Höfn
5 MW
5 MW

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VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 02 AR : 1992
Expansion alternative : Year

NY STÖRÐJÁ : 150
New power intensive industry:



POKJUN TEKNI NR

VERK BLAD ERN BL

RAMP: 2

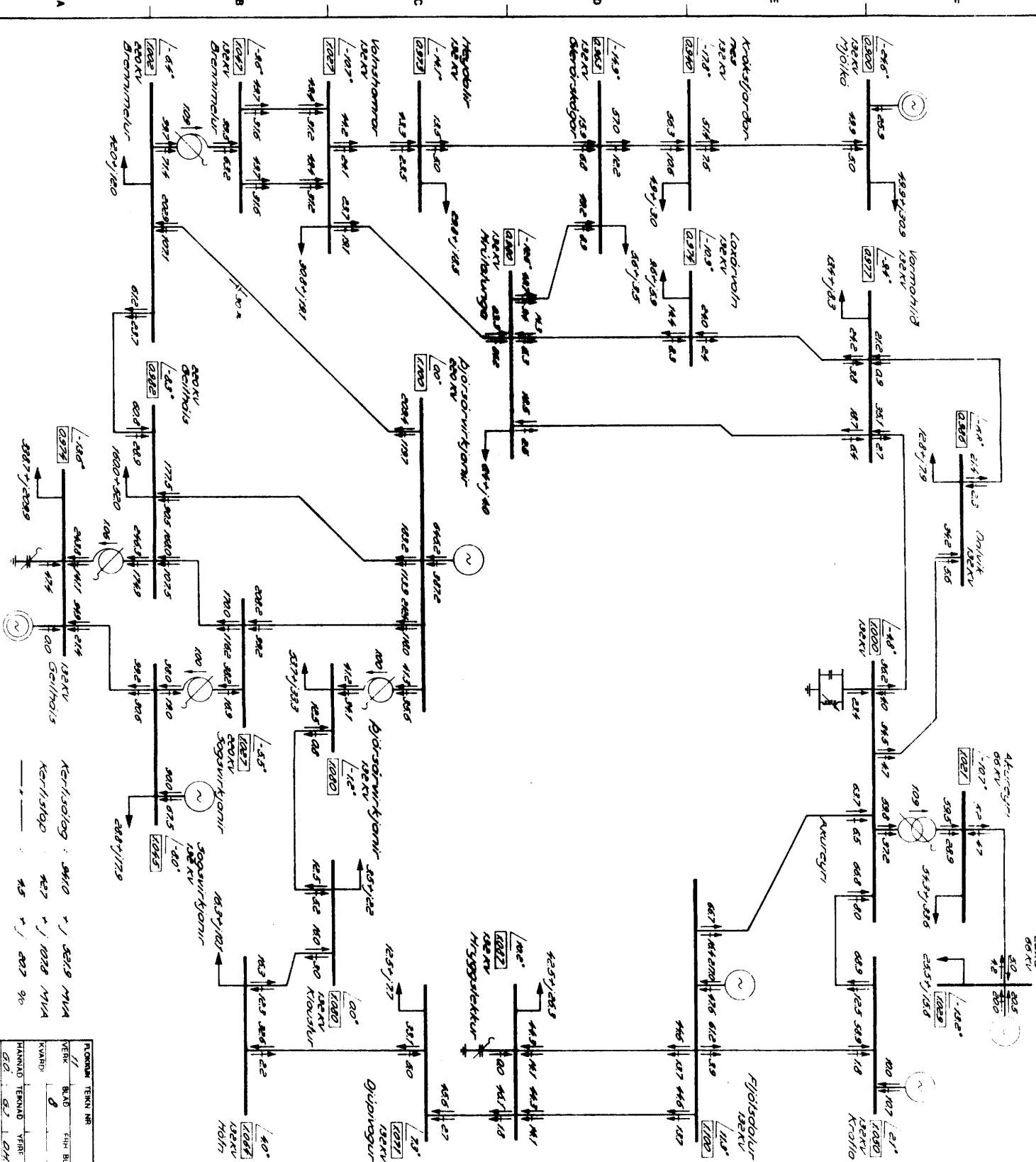
HANNAÐ TEKNAÐ VERF

BEYKJAVIK 60 67 68

6.111

Kerfiþyng : 8082 r/j 430.9 MVA
Kerfiþyng : 475 r/j 146.3 MVA

5.9 r/j 340 %



Stillingar og Notendur
Lsgno

Refraktormagnetið
Electric Power Generation

Lauvalfrömla/350
Reactive Power Generation

Spennu 1, pu
Voltage in pu

Horn spennuviss 1, gradum
Voltage angle in degrees

Rauðstíflað 1, MW
Active power flow in MW

Lauvalstíflað 1, MW
Reactive power flow in MW

Einvaltsgegnir
Autotransformer

Spennni
Transformer

Spennuhöll 1, pu
Tap setting in pu

Aldisþröskulur
Tap changing under load

Þönnuorki
Capacitor bank

Þyrnborstni þönnuorki
Stein var System

Serubeltir
Series compensation

Alög 1, MW og MW
Load in MW and MW

Alhögsemmi:
Kalla þinn
Edlið ræðstjórn

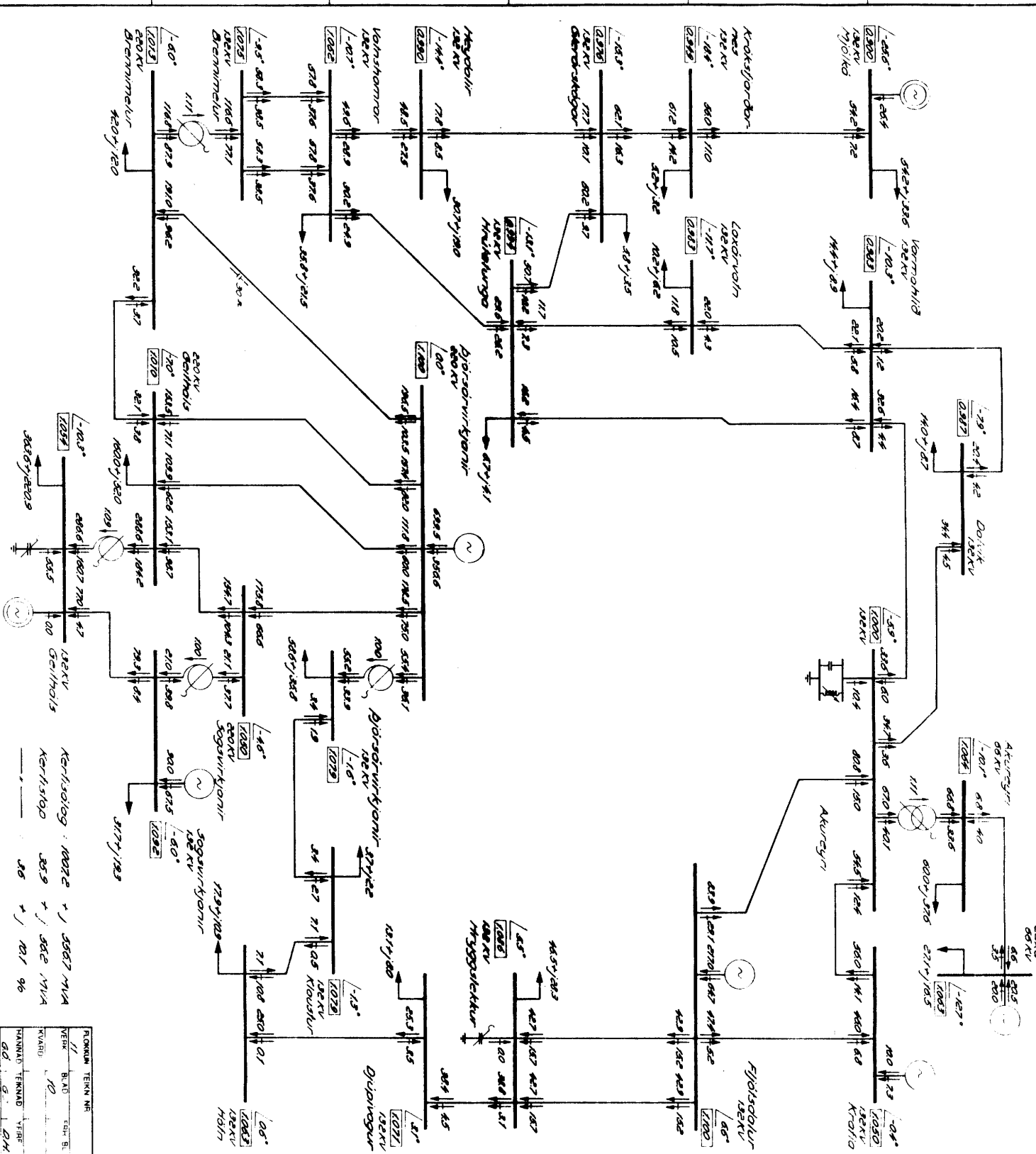
ORKUSTOFNUN
VIRKUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKUNARLEIÐ : 02 **AR :** 1995

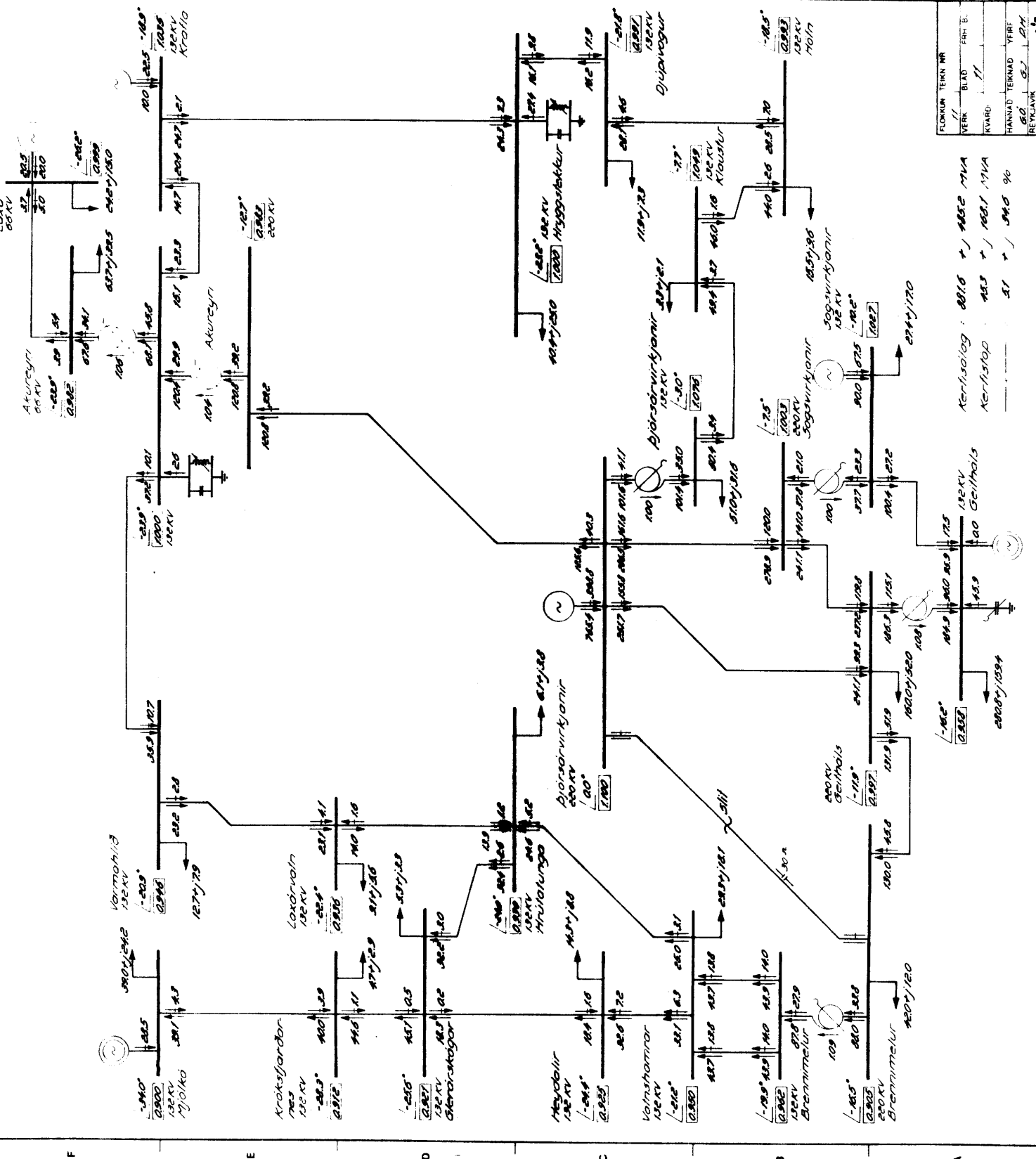
NY STORIDJA : 130
New power intensive industry:

FRÖMUR TERNI NR. _____
VERIÐ _____
KVAÐ _____
FRÖMUR TERNI NR. _____
VERIÐ _____
KVAÐ _____

Rafönnun
ÁHNL 12 SÍM 6433



<p>SKILLINGAR O. TEKNISKA LÖSNINGAR</p>	<p>Reaktorkraftgenerering Electric Power Generation</p>	<p>Laddningskraftgenerering Reactive Power Generation</p>	<p>Spänning i pu Voltage in pu</p>	<p>Nullspänning i grad Null voltage angle in degrees</p>	<p>Rörelseström i MW Active power flow in MW</p>	<p>Laddningsström i MVAR Reactive power flow in MVAR</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>	<p>Spänningsreglering Voltage regulation</p>
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Sýningar á lögnunni
 1995

Raforkum/eiðisla
 Electric Power Generation

Lögnun/eiðisla
 Reactive Power Generation

Spenna í p.u.
 Voltage in p.u.

Horn spennuvissis í gráðum
 Voltage angle in degrees

Reunastíðir í MW
 Active power flow in MW

Lögnastíðir í MVAR
 Reactive power flow in MVAR

Einvalsspennir
 Auto-transformer

Spennir
 Transformer

0. Spennuhlutföll 1.0U
 Tap setting in p.u.

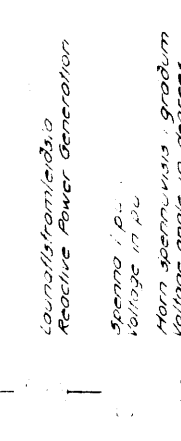
Alogsbreppskipir
 Tap changing under load

Beihavirkir
 Capacitor bank

Thyristorstýrt beihavirkir
 Static var-system

Serubellir
 Series compensation

Alog í MW og MVAR
 Load in MW and MVAR



Almúgasetmiðir:
 Krafta 10MW
 Áframhýfingarlina 110KV
 Rjó gífir á öllu: Vesturland 145MW
 Vestfirir 85MW
 Reykjavík 35MW

	VIRKJUNARLEIÐIR TIL ALDAMÓTA Hydro - power expansion alternatives
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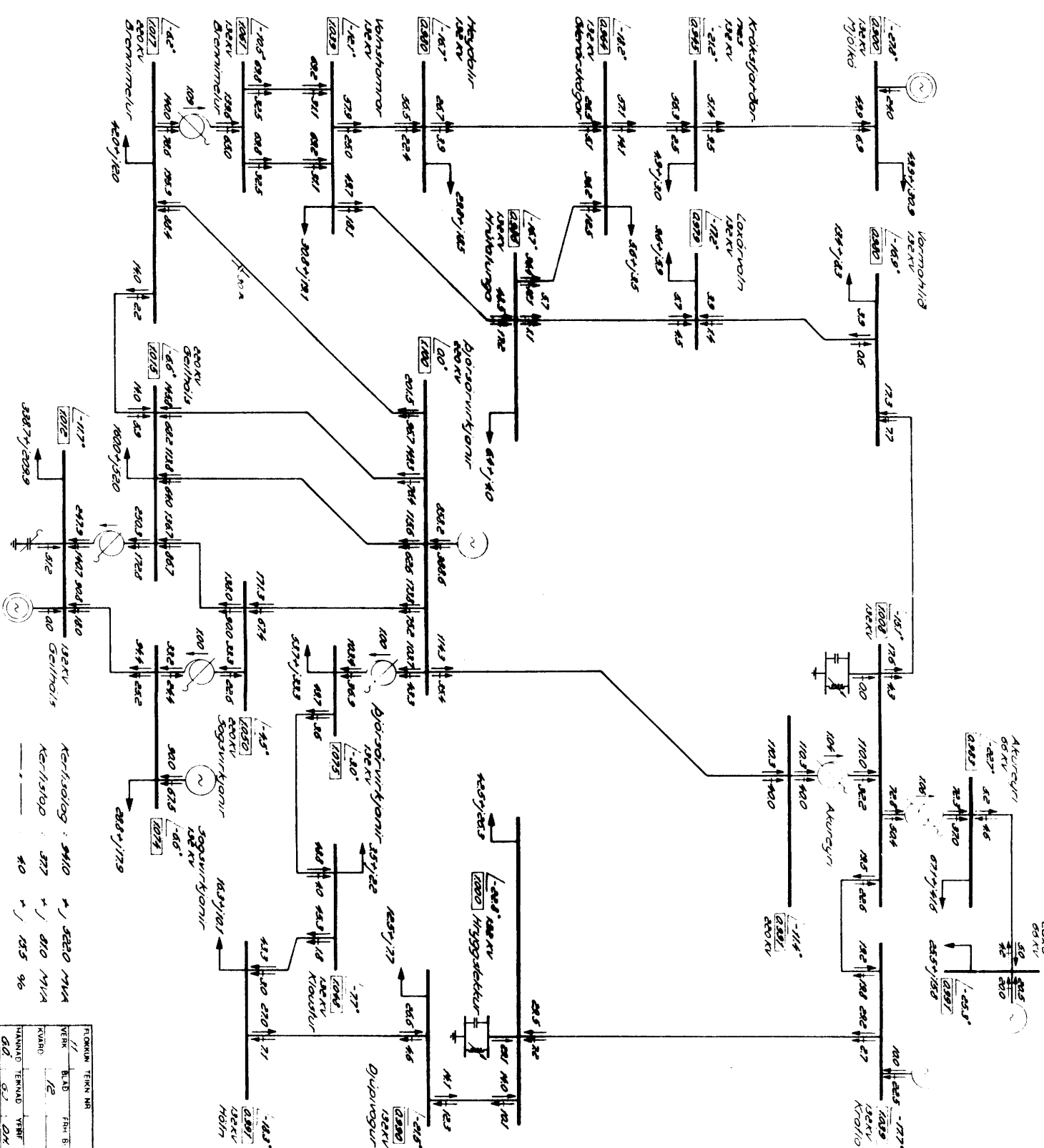
VIRKJUNARLEIÐIR : 03	ÁR : 1995
Expansion alternative : 150	

NY STÓRIÐJA : 150 New power intensive industry	
--	--

FLOKKAÐ TERN NR
 VERK BLAÐ EFTI B.
 KVARD 11
 HANNAÐ TERNNAÐ VEFR
 REKJAVÍK 67 24
 ÖSS 81

Kerfið/og : 8816 + j 14852 MVA
 Kerfið/100 : 453 + j 16851 MVA
 51 + j 940 96

Rafhönnun
 (RÚM) 42 388 6433



Stærtingar og táknaðið
LÝSGRÖÐ

Raforkunarmódel
Electric Power Generation

Launullshornleiðing
Reactive Power Generation

Spenna, PU
Voltage in pu

Horn spennuvissur í gróðrum
Voltage angle in degrees

Roundfildir í MW
Active power flow in MW

Launullshorn í MW
Reactive power flow in MW

Ervarðstærni
Autotransformer

Spennur
Transformer

Spennufléttill, PU
Top selling in pu

Afgjafarkapillur
Top changing under 1000

Beltegnitt
Capacitor bank

Þröngunartúll, beltegnitt
Statoric var System

Semubellur
Series compensation

Afgj. MW og MVA
Load in MW and MVA

Afhugasemlar:
Krafta 10 MW
Eilíngið rekstrarskipti

03 VIRKJUNARLEIÐIR TIL ALDAMOTA

Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 03 AR : 1996

NY STÖRÐIA : 150
New power intensive industry :

Rafinnmun
Annual 42 200 4233

FLÖKKUN TÆKN NR

VEK 11

KLAS 12

FAH. B.

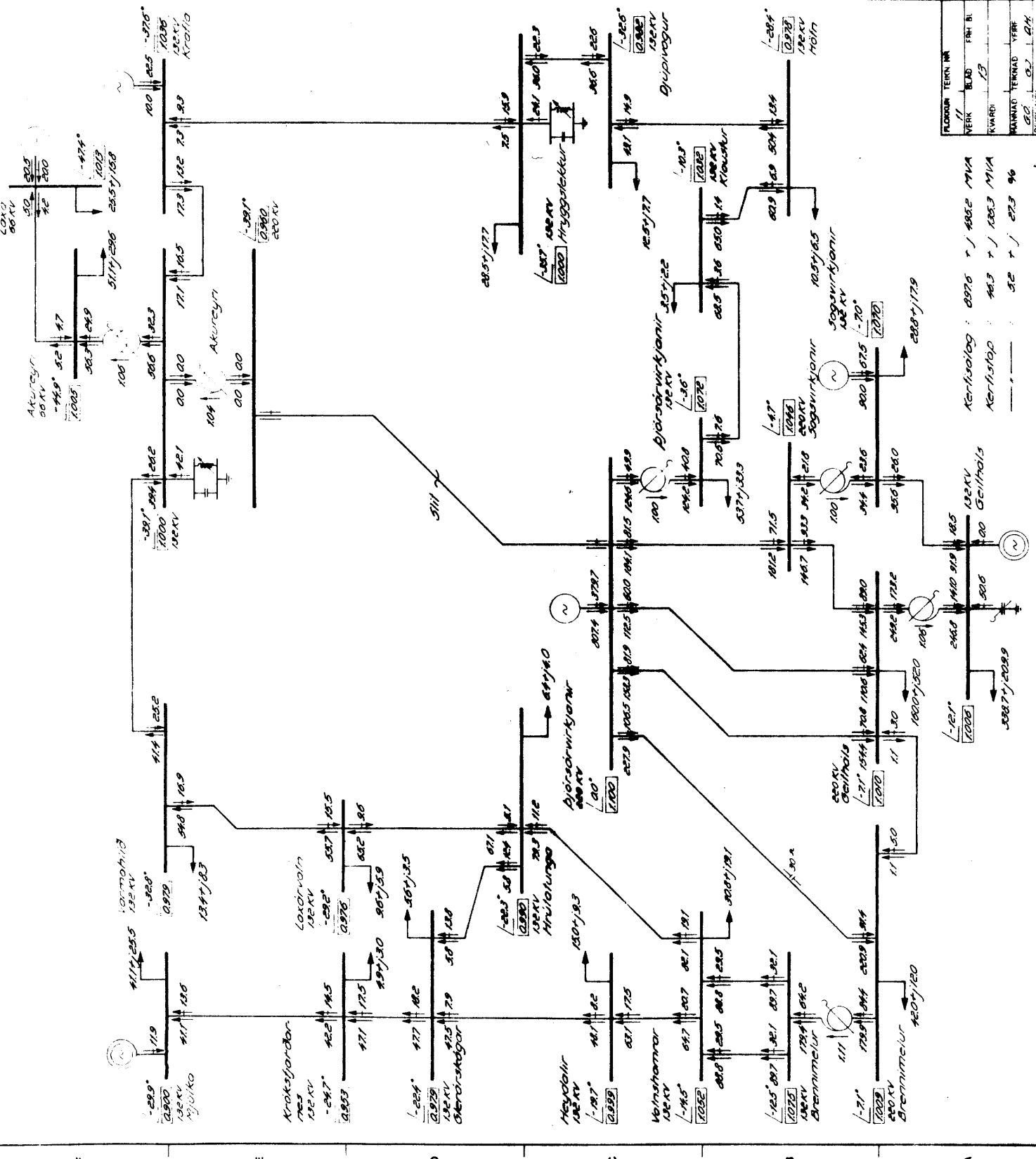
REKJANING

03 01

03 01

03 01

Rekstrálag : 5410 * 1, 5220 MVA
Kerfiálag : 572 * 1, 610 MVA
* 40 * 1, 135 %



Legend

- Elektrísk Power Generation
- Countdown Generator
- Reactive Power Generation
- Spenna / pu Voltage in pu
- Volga spenna / pu Voltage angle in degrees
- Reactive power flow in MW
- Active power flow in MW
- Reactive power flow in MVA
- Einvalsspennir Autotransformer
- Spennir Transformer
- Spennunúttöll / pu Tap setting in pu
- Alöggsbrækjupillir Tap changing under load
- Deiluvirkni Capacitor bank
- Thyrstorsstyrki þéttvirkni Static var-system
- Seríubellir Series compensation
- Álag / MW og MVA Load in MW and MVA

Almúgusemndir:

- Krafta 101 MW
- Hélandalaína sifillín
- R.D. yfir á öllu: Vestfirðir 881 MW
- Hvítárvirkjanir 130 MW
- Mólin 85 MW
- Vesturland 165 MW
- Akureyrir 161 MW

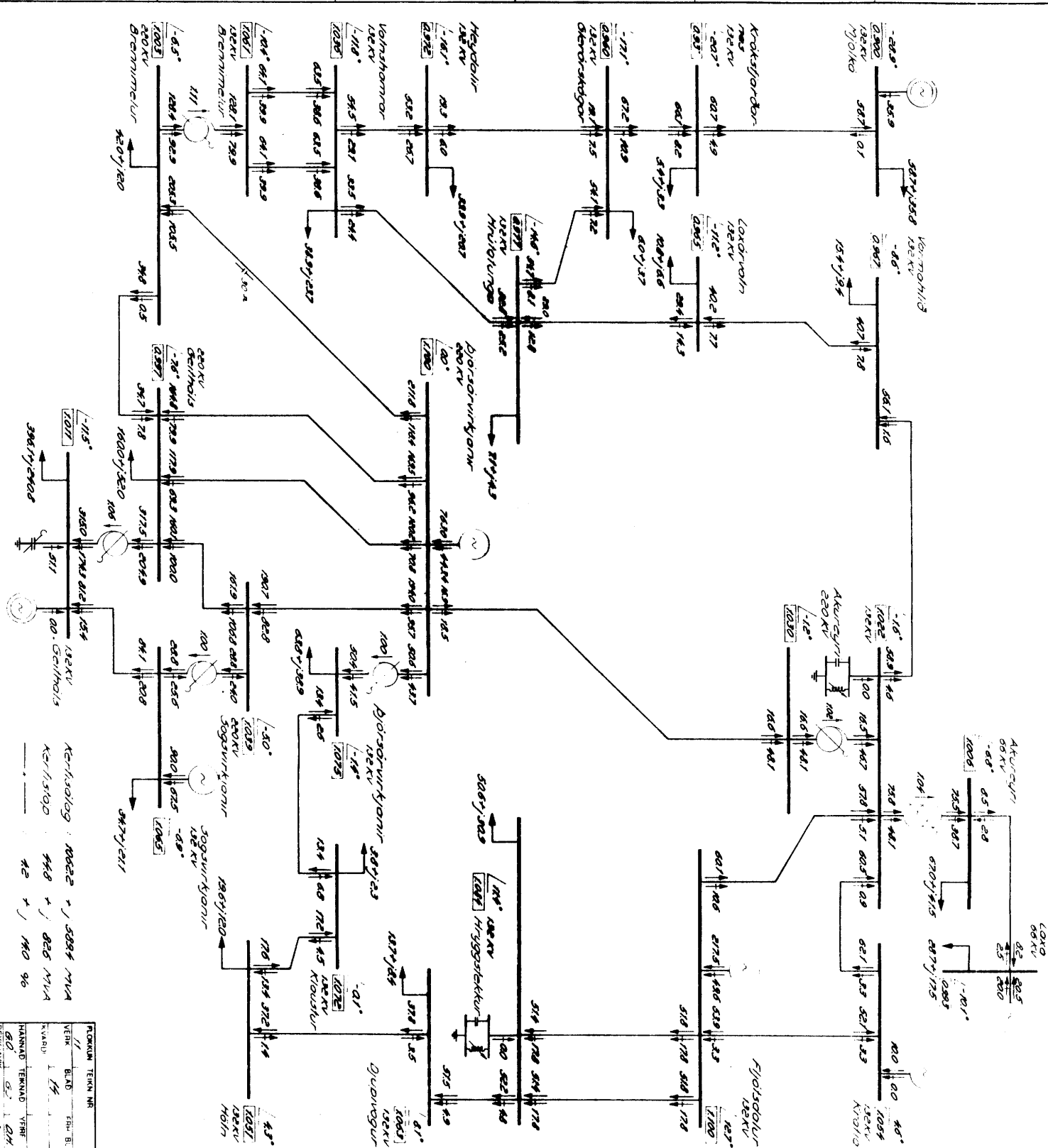
Virjunarleiðir til Aldamoti: Hydro - power expansion alternatives

Virjunarleiðir: 03	AR: 1996
Expansion alternative:	Year:
NY Stöðudja: 150	NY Stöðudja: 150
New power intensive industry:	

Rafhönnun 4. ÁHALLI 25. SM 0433

FLOKKUR	TEKNI	M
VERK	BEIÐ	FRH BI
80	13	
KVARDI	FRH	BI
80	07	04
MUNNIÐ	TEKNI	VERK
80	07	04
REYKJAVIK	TEKNI	VERK
80	07	04

Kerfisslag:	8976	+ /	4062	MVA
Kerfisslag:	463	+ /	1363	MVA
	32	+ /	273	%



Kraftslog : 10622 + 5884 714
 Kraftslog : 418 + 825 714
 42 + 140 96

PROJEKT TEKN. NR.	11
VERK. BILD	TEK. B.
UTVÄRD.	1/5
HÄNSYTT TILL	1/5
REVISJON	02
REVISJON	01

VIRKUNARLEIÐIR TIL ALDAMOTA	
Hydro - power expansion alternatives	
VIRKUNARLEIÐ :	03
Expansion alternative :	AR : 2000
NY STÖRÐJA :	130
New power intensive industry :	

Virkið

Virkið er notað til að sýna áhrifafræðingarnar og hvernig þær hafa áhrif á virkni og spennu. Virkið er notað til að sýna áhrifafræðingarnar og hvernig þær hafa áhrif á virkni og spennu.

Áhrifafræðingarnar

Kröfla þinn
 Edlignir rekstrarskipti

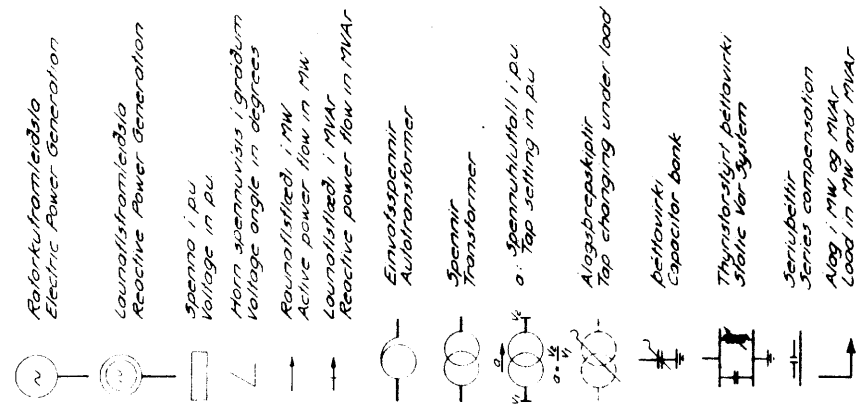
Spennu

Spennu
 Spennu
 Spennu

Spennu og Volt

Spennu og Volt
 Spennu og Volt
 Spennu og Volt

Skýringar á teikningu
Legend



Almúgaseindir:
Kraflo = 10 MW
Birtelsetning I slitin

Dióll:
Reykjavík 58 MW
R10 yfir 0 öllu
Vesturland 154 MW

ORKUSTOFNUN

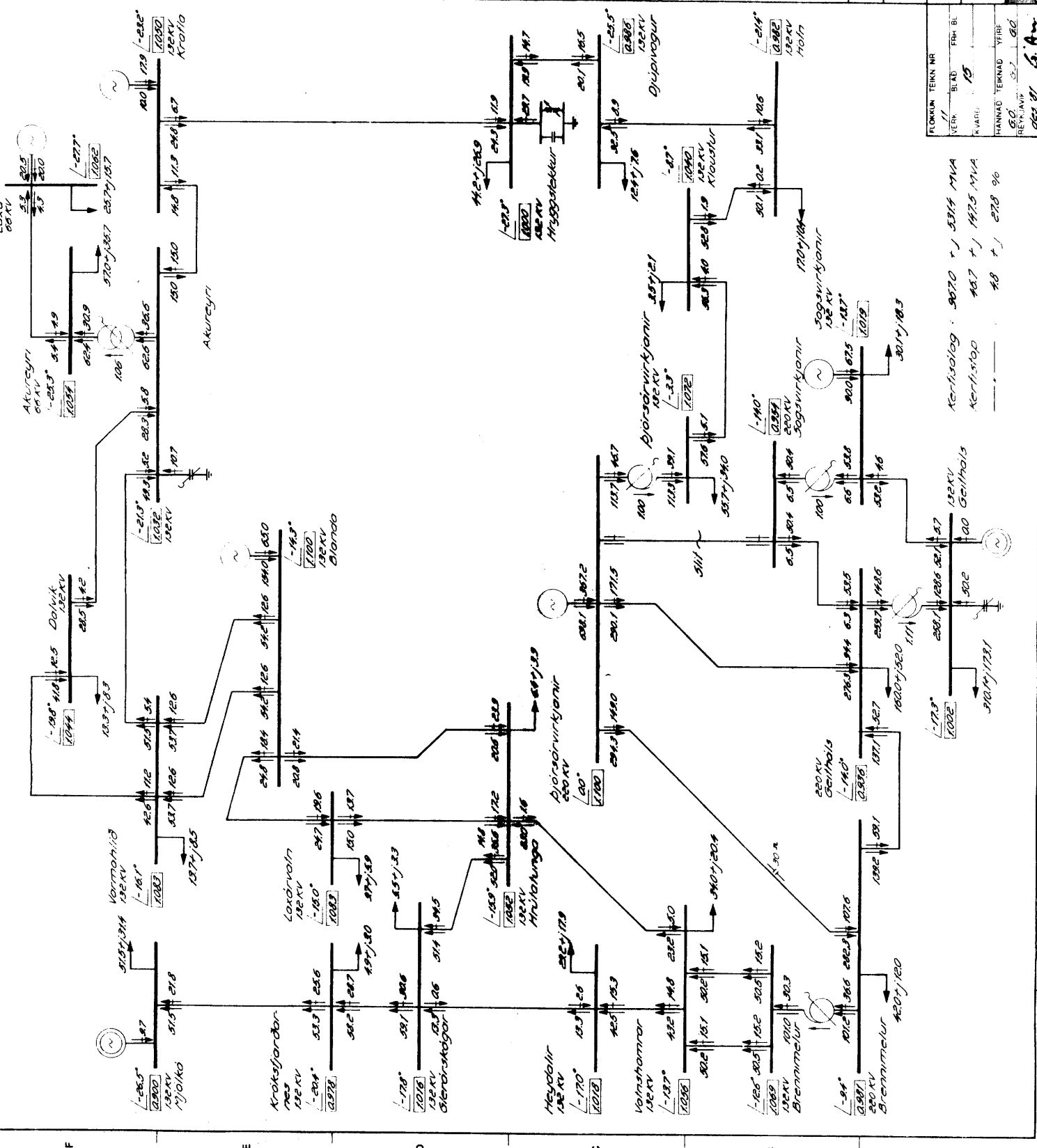
VIRKJUNARLEIÐIR TIL ALDAMÖTA

Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 04
Expansion alternative :
ÁR : 1997
Year :

NY STÖRÐJAJA : 150
New power intensive industry :

Rafhönnun ARMBL142 SMR 04833



FLOKKUN	TEKNA NR	VERK	BLÁD	FRM.	BL.
11					
KVARNÍ		15			
HANNAÐ	TEKNAÐ	YFRIF			
REYKJAVÍK	3.7	60			
04					

ÁR	1997	2000	2005	2010	2015	2020
Kerfiþvöð	5070	5314	5544	5774	6004	6234
Kerfiþvöð	487	497	507	517	527	537
	48	48	48	48	48	48

ÁR	1997	2000	2005	2010	2015	2020
Kerfiþvöð	5070	5314	5544	5774	6004	6234
Kerfiþvöð	487	497	507	517	527	537
	48	48	48	48	48	48

ÁR	1997	2000	2005	2010	2015	2020
Kerfiþvöð	5070	5314	5544	5774	6004	6234
Kerfiþvöð	487	497	507	517	527	537
	48	48	48	48	48	48

ÁR	1997	2000	2005	2010	2015	2020
Kerfiþvöð	5070	5314	5544	5774	6004	6234
Kerfiþvöð	487	497	507	517	527	537
	48	48	48	48	48	48

ÁR	1997	2000	2005	2010	2015	2020
Kerfiþvöð	5070	5314	5544	5774	6004	6234
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	48	48	48	48	48	48

ÁR	1997	2000	2005	2010	2015	2020
Kerfiþvöð	5070	5314	5544	5774	6004	6234
Kerfiþvöð	487	497	507	517	527	537
	48	48	48	48	48	48

Skjalmyndir & Tekningar
LÖGGER

Reaktorformildislo
Electric Power Generation

Launaflokkunarmaldislo
Reactive Power Generation

Spenna / pu
Voltage in pu

Þann spennuvissis / gradum
Voltage angle in degrees

Reynuflokkur / MW
Active power flow in MW

Launaflokkur / MW
Reactive power flow in MW

Ernuaflokkur
Autotransformer

Spennur
Transformer

Spennuhall / pu
Tap setting in pu

Algildisþakki
Tap changing under load

Reiðvirk
Capacitor bank

Þryggherfi / Reiðvirk
Storage for System

Serisþakki
Series compensation

Algildisþakki / MW og MWAR
Load in MW and MWAR

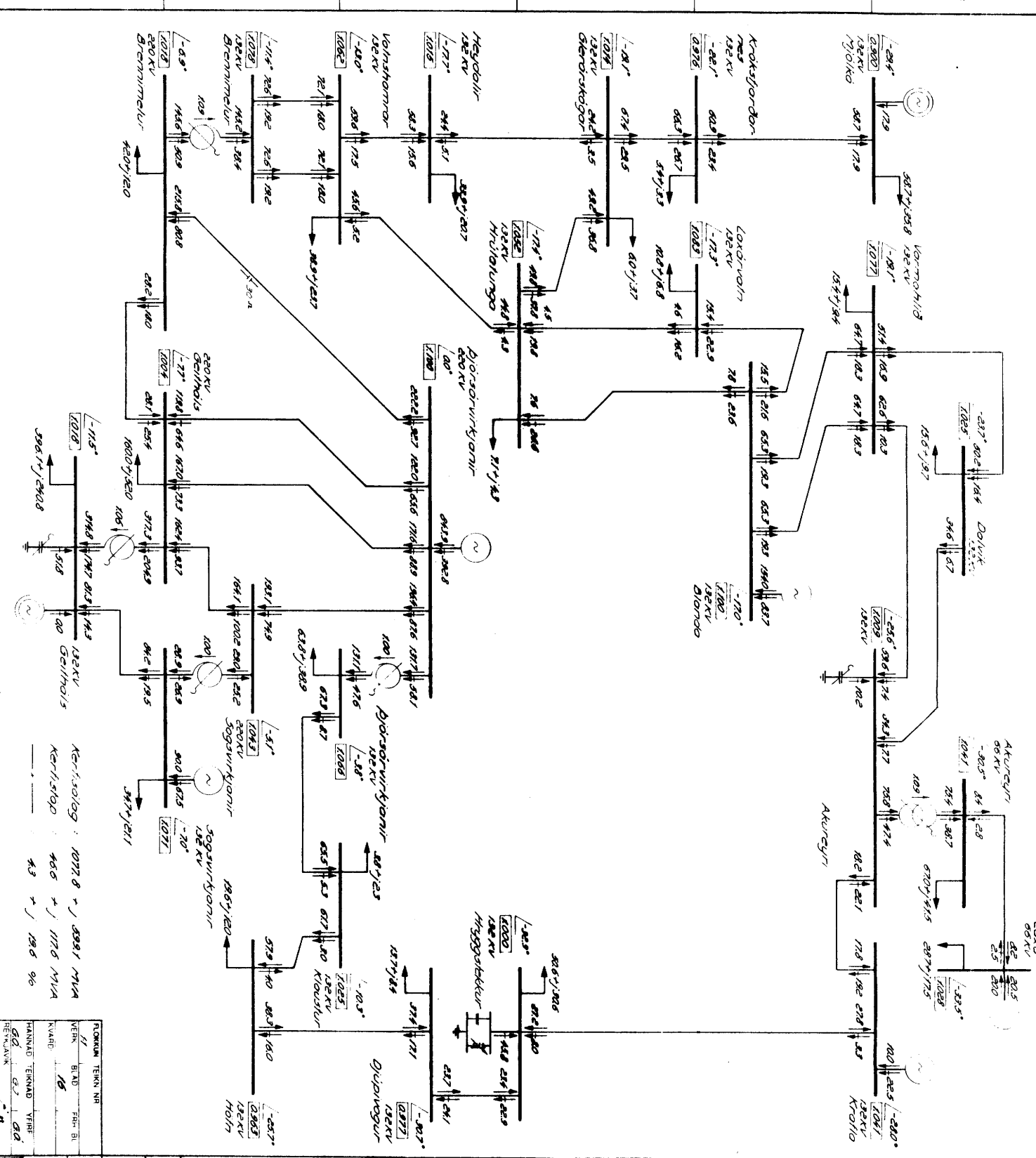
Alhugsanemi
Kraflo = 10 MW
Eðlilgvið ræðingardráttur

ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÓTTA
Hydro - power expansion alternatives

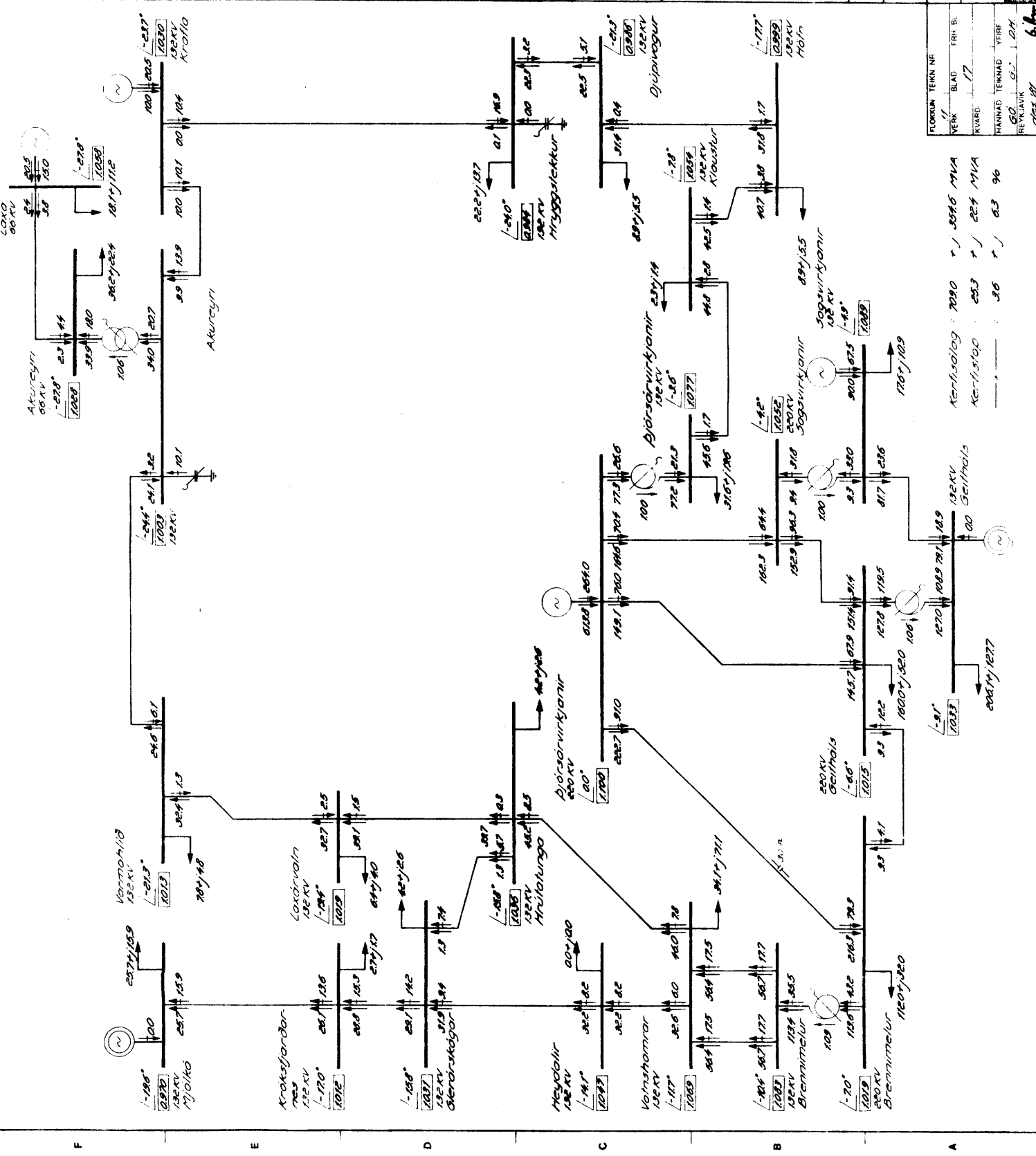
VIRKJUNARLEIÐ : 04
Expansion alternative :
NÝ STÖRÐJA : 150 Almannarökin
New power intensive industry :

ORKUSTOFNUN
Rafhönnun
ARNUM 43 SM 14333



FLÖKKUN	TEKNI	NR
VERK	BR.ÚD	FRM. BR.
KIARR	15	
HNANNAÐ	TEKNAÐ	VIÐRIF
REKINGJAFN	57	60
025 81	07. A.	

Kerfiþrotlog : 1077.8 *) 8981 MVA
Kerfiþrot : 466 *) 1176 MVA
4.3 *) 18.6 %



Styrkingar á teknaúttal
Leiðsla

Raforkunarmódelið
 Electric Power Generation

Launalisframiðgöngu
 Reactive Power Generation

Spenna / **PU**
 Voltage in PU

Þáttur spennuvissis / **gráður**
 Voltage angle in degrees

Rauðvirkni / **MW**
 Active power flow in MW

Launalisleid / **MVAR**
 Reactive power flow in MVAR

Einvoisþennar
 Auto-transformer

Spennir
 Transformer

Spennuhliðfall / **PU**
 Tap setting in PU

Álagsþröskulinn
 Tap engaging under load

Þéttvirkir
 Capacitor bank

Þýristorvirki
 Thyristor reactor

Stótt Vör-System

Seriesbellir
 Series compensation

Álag / **MW og MVAR**
 Load in MW and MVAR

Athugasemdir:
 Krafta 10 MW
 Eðlilegt rekstrarskipti

ORKUSTOFNUN Hydro - power expansion alternatives	VIRKJUNARLEIÐ : 01 Expansion alternative	ÁR : 1985 Year
VIRKJUNARLEIÐIR TIL ALDAMÖTA Hydro - power expansion alternatives	NY STÖRÐJÁ : 151 New power alternative	Brennimætur 20 MW New power alternative

Rafhönnun
 APRIL 12 1984

FLOKUN TERN NR

VERK	BLAD	FRH BL
17	17	
KVARD		
HANNAÐ TERNAÐ	VERIF	
REYKJAVIK	60	04
0643 87		

Kerfisslag :	2090	r /	5896	MVA
Kerfisslag :	2593	r /	2254	MVA
	30	r /	83	96

SKYLIÞINGAR O LOKAUTLIT
LEGJAAÐ

Reaktorhúsmæðsla
Electric Power Generation

Launmálshamleiddsla
Reactive Power Generation

Spenna / DV
Voltage in DV

Horn spennuvissis / gæddum
voltage angle in degrees

Roundfildid / MW
Active power flow in MW

Launmálsheld / MW
Reactive power flow in MW

Einvalsspennir
Autotransformer

Spennir
Transformer

Algæðræskingill / DV
Tap setting in DV

Algæðræskingill
Tap changing under load

Asilvirkni
Capacitor bank

Thyrrosluálgir þelluvirki
Static var system

Serubællir
Series compensation

Algæðræskingill
Tap in MW and MVA

Alhúsgættir
Krofla 10MW
Höfnungslássafling 5117
RÞ gfr d öku: Vesturland 37MW
Vestfirðir 37MW
Vestfirðir 157MW

ORKUSTOFNUN

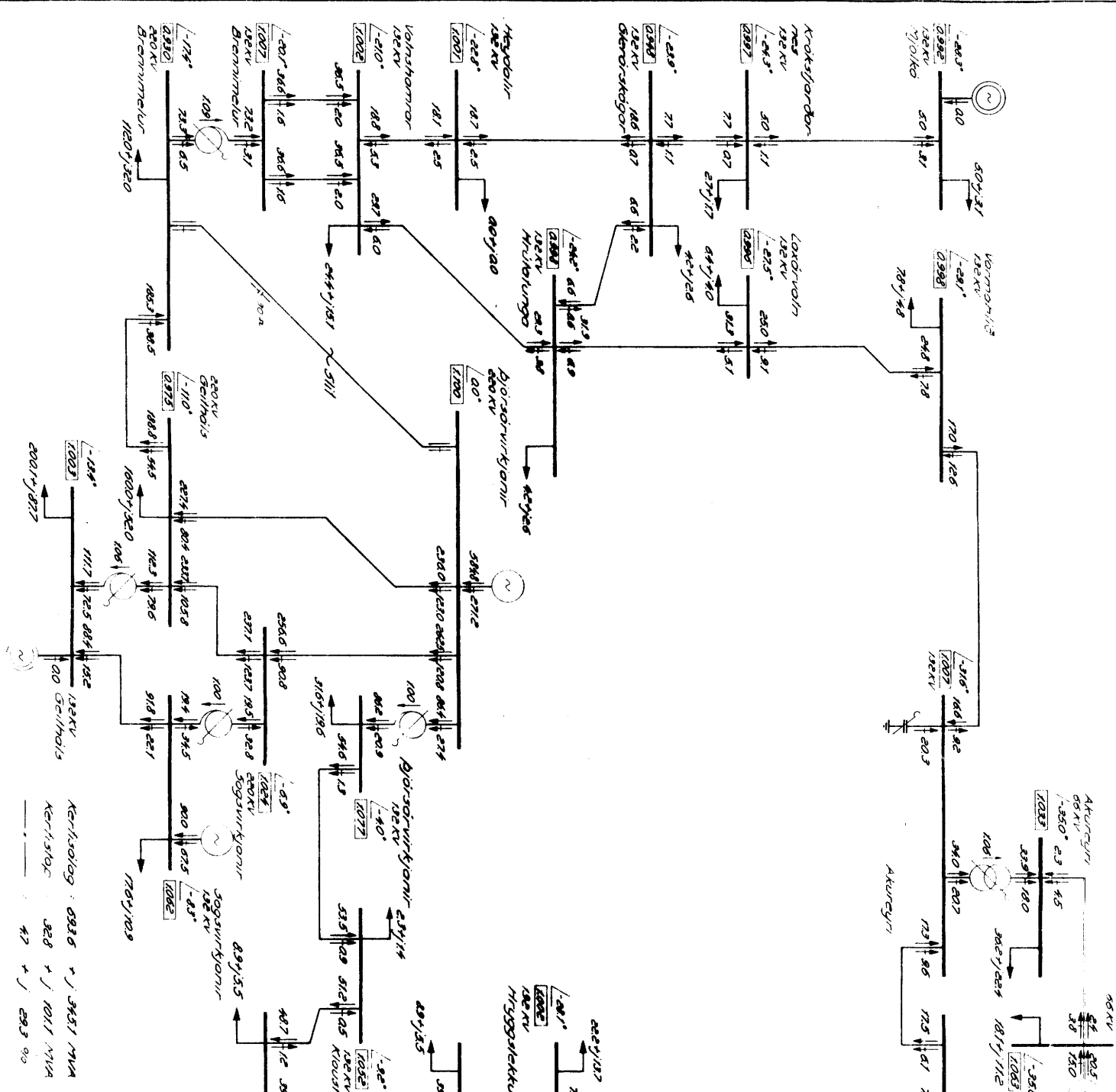
VIRKUNARLEIÐIR TIL ALDMANOTA
Hydro - power expansion alternatives

VIRKUNARLEIÐ : 01 AR : 1985

NY STORIDJA : 151 Beannimelur 10MW
New power intensive industry :

Rafinnun

FORUM TERN NR	17
BYRJAÐ	18
FR. B.	
FR. A.	
FR. C.	
FR. D.	
FR. E.	
FR. F.	
FR. G.	
FR. H.	
FR. I.	
FR. J.	
FR. K.	
FR. L.	
FR. M.	
FR. N.	
FR. O.	
FR. P.	
FR. Q.	
FR. R.	
FR. S.	
FR. T.	
FR. U.	
FR. V.	
FR. W.	
FR. X.	
FR. Y.	
FR. Z.	



Kerfiþing : 0936 * / 3451 MVA
Kerfiþing : 328 * / 1011 MVA
47 * / 293 %

Skýringar á löknum
Legend

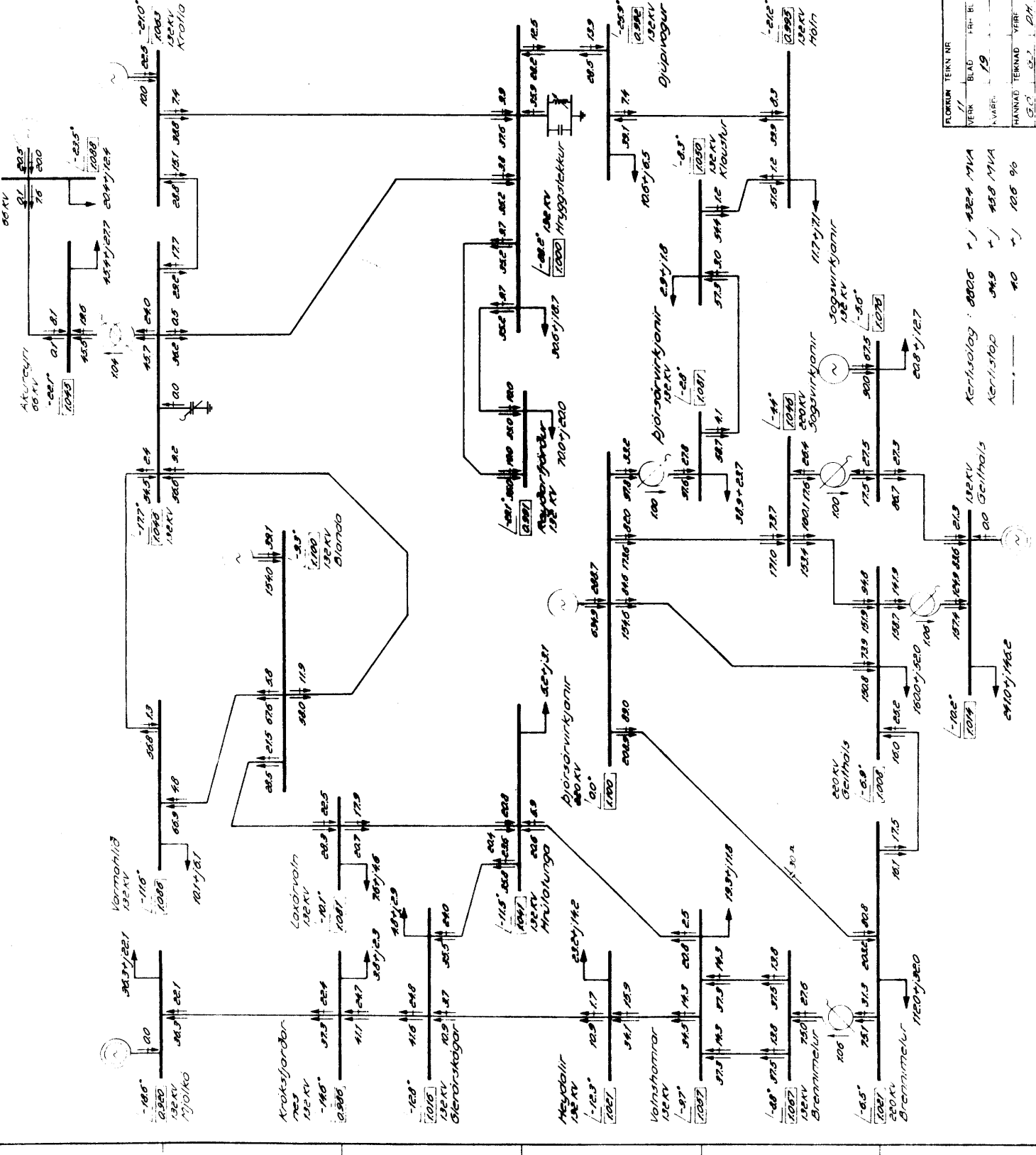
- Roforkulmálendi
Electric Power Generation
- Lögnallstrómendi
Reactive Power Generation
- Spenna / PU
Voltage in pu
- Höfn spennuvissis / gróður
Voltage angle in degrees
- Röndulsið / MW
Active power flow in MW
- Lögnulsið / MVAR
Reactive power flow in MVAR
- Einvalsspennir
Auto-transformer
- Spennir
Transformer
- Spennuhlið / PU
Tap setting in pu
- Alagðraskapillir
Tap changing under load
- Þéttvirkir
Capacitor bank
- Þyrsturlyst þéttvirkir
Static Var System
- Jernþellir
Series compensation
- Alag / MW og MVAR
Load in MW and MVAR

Athugasemdir:
Kraftlo = 10 MW
Eðlilegt rekstrarstand

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 01 AR : 1989
Expansion alternative : Year

NY STÖRÐJAJA : 151 Reyðarfjörður 20 MW
New power intensive industry : Branninnelur 20 MW



FLÖKUN TEKN. NR.
VERK BLAD 14-B
A. VÆR. 19
HANNAÐ TEKNAD VERF
REYK. AVK 02, 04
des 81

Kerfi-álag : 8906 + j 4224 MVA
Kerfi-álag : 949 + j 498 MVA
40 + j 106 %

132 kV
110 kV
100 kV
80 kV
60 kV
50 kV
40 kV
30 kV
20 kV
10 kV

SKYRSLYDUR 2. JÓHANNA
15.12.2020

Refraktormæðsla
Electric Power Generation

Löngdfræmleðsla
Reactive Power Generation

Stærna 1, 2U
Voltage in 2U

Hættu samhverfað lýngulm
Voltage angle in degrees

Rögnstærð 1, 1MW
Active power flow in MW

Löngdfræmleðsla 1, 1MW
Reactive power flow in MW

Einvaldastærna
Autotransformer

Stærna 1, 2U
Transformer

Stærna 1, 2U
0: Spennuhlið 1, 2U
Top setting in 2U

Alvörðgaskali
Tap changing under 1000

Þéttvirkni
Capacitor bank

Þyngdarskipt þéttvirkni
Static var system

Þerubællir
Series compensation

Almagnetsmiðill
Load in MW and MVA

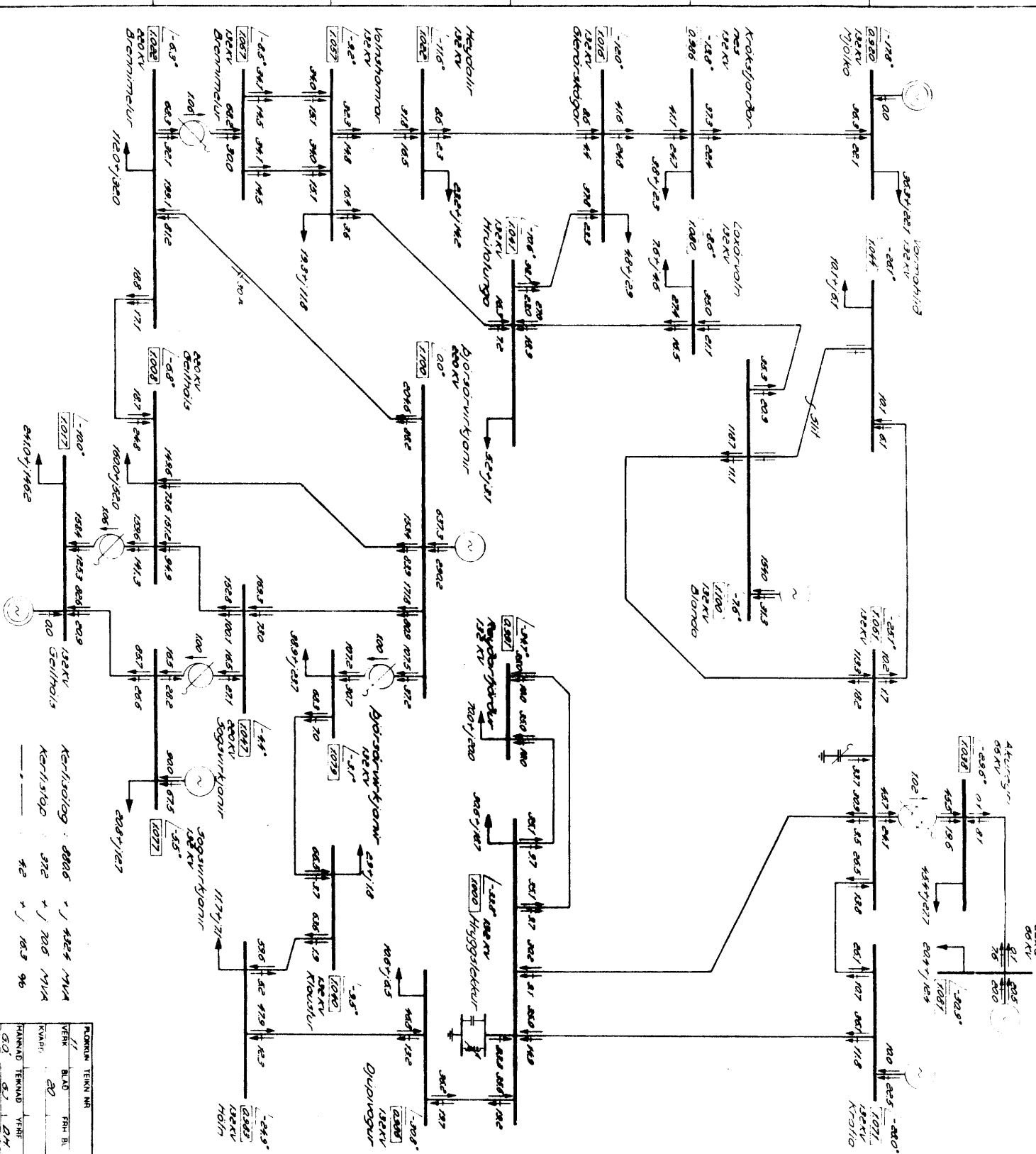
Almagnetsmiðill
Krafta = 101MW
Linafr Blanda - Varmahlaug 51117

VIRKUNARLEIÐIR TIL ALDAMÓTA
Hydro power expansion alternatives

VIRKUNARLEIÐ : 01 AR : 1989

Expansion alternative :
NY STORIDIA : 151 Regðagjörður 20MW
New power intensive industry : Blömmimelur 20MW

RAFFÖNNUN
Rafmagn



Kenningar : 8806 4224 MVA
Kenningar : 372 4705 MVA
Kenningar : 42 163 96

TEKNI	TEKNI NR.
BLAÐ	20
FR. BL.	24
FR. BL.	24
FR. BL.	24

Virkiunarleiðir 20 MW
 New power intensive industry: *Selgáttarleiðir* 20 MW

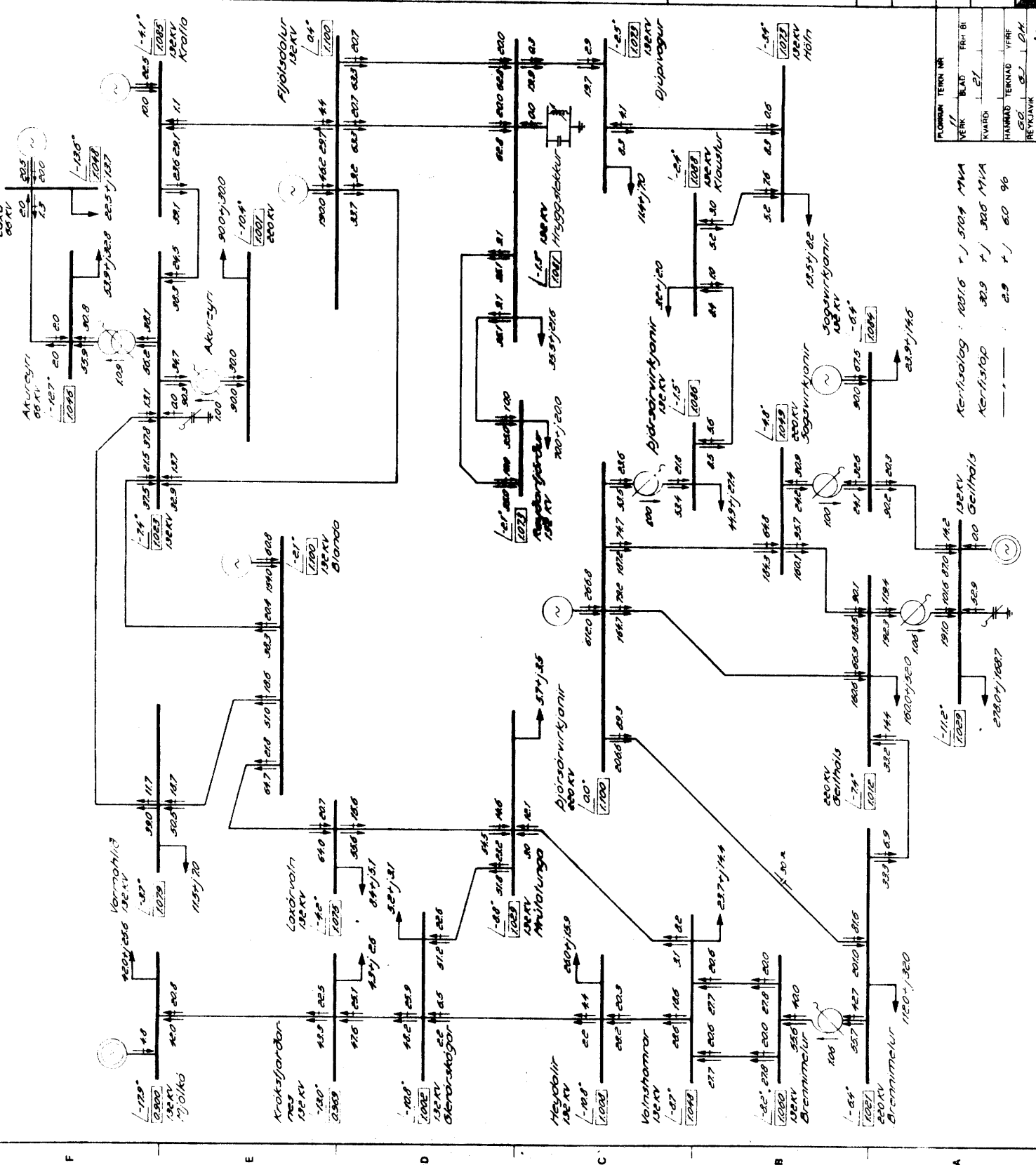
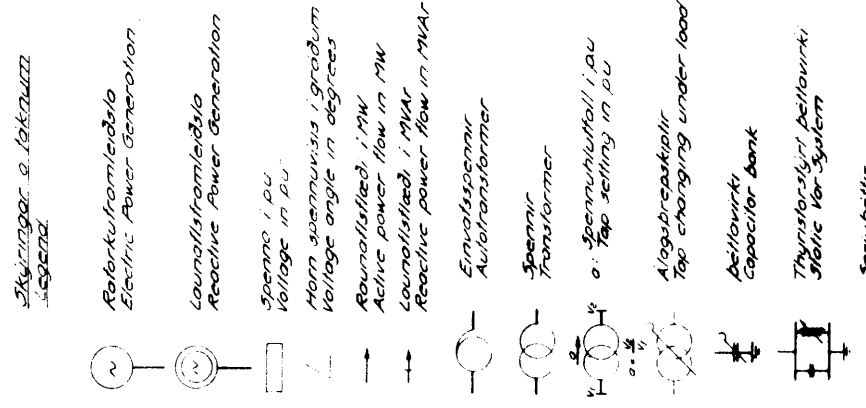
Virkiunarleiðir 151
 Expansion alternative: *Selgáttarleiðir*

Virkiunarleiðir 01
 Expansion alternative: *AR* 1992



Virkiunarleiðir TIL ALDAMÖTA
 Hydro - power expansion alternative

Athugasemdir:
 Kröflla = 10 MW
 Eðlilegt réttrastarstand

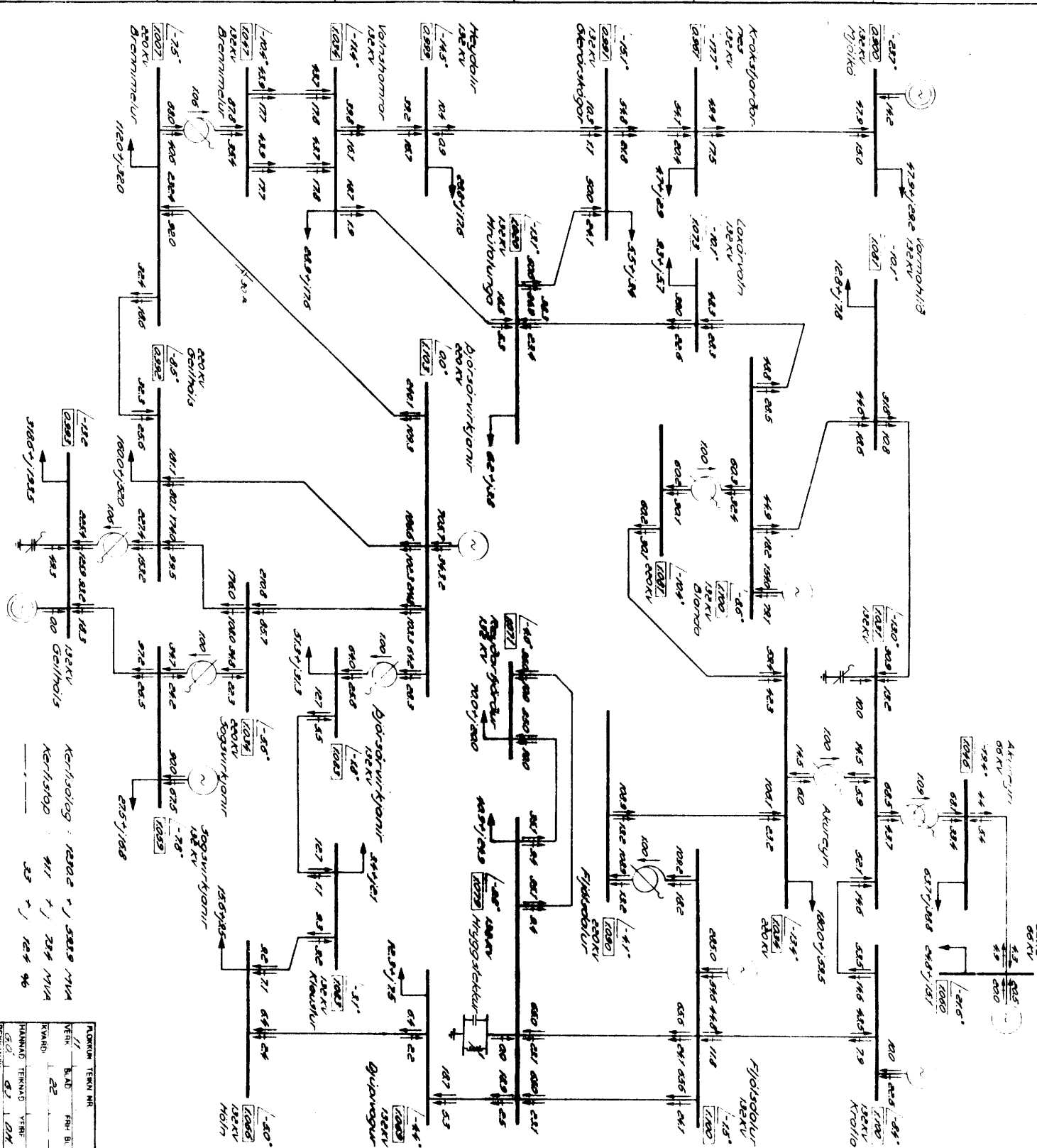


Flowchart Table:

Flóðnum	Termin	MW
VIK	BLAÐ	FH-BI
KVA	KVA	EV
HA	TERNAV	VIR
RE	KVA	EV
265.9		

Power Flow Summary:

From	To	MW	MVAR
Ker-filosvög	100.0	100.0	19.4
Ker-filosvög	20.9	20.9	19.4
—	2.9	2.9	9.6



SKYRSLA OG TÖKUN
 LÖGONA

Refraktorm/eislo
 Electric Power Generation

Launhliðm/eislo
 Reactive Power Generation

Spenna / DV
 Voltage in DV

Horn saenuviss / grotum
 Voltage angle in degrees

Raunviss / DV
 Active power flow in MW

Launviss / DV
 Reactive power flow in MVAR

Einvaldennar
 Auto-transformer

Spennur
 Transformer

Spennuhlið / DV
 Top setting in DV

Alögð-gaskali
 Top changing under load

Deilvark
 Capacitor bank

Thyrstors / deilvark
 Valve for system

Serubellir
 Series compensation

Algö / MW og MVAR
 Load in MW and MVAR

Almögðennar
 Krefla - 10MW
 Edillig / rektrostand

VIKJUNARLEIÐIR TIL ALDAMOTA
 Hydro-power expansion alternatives

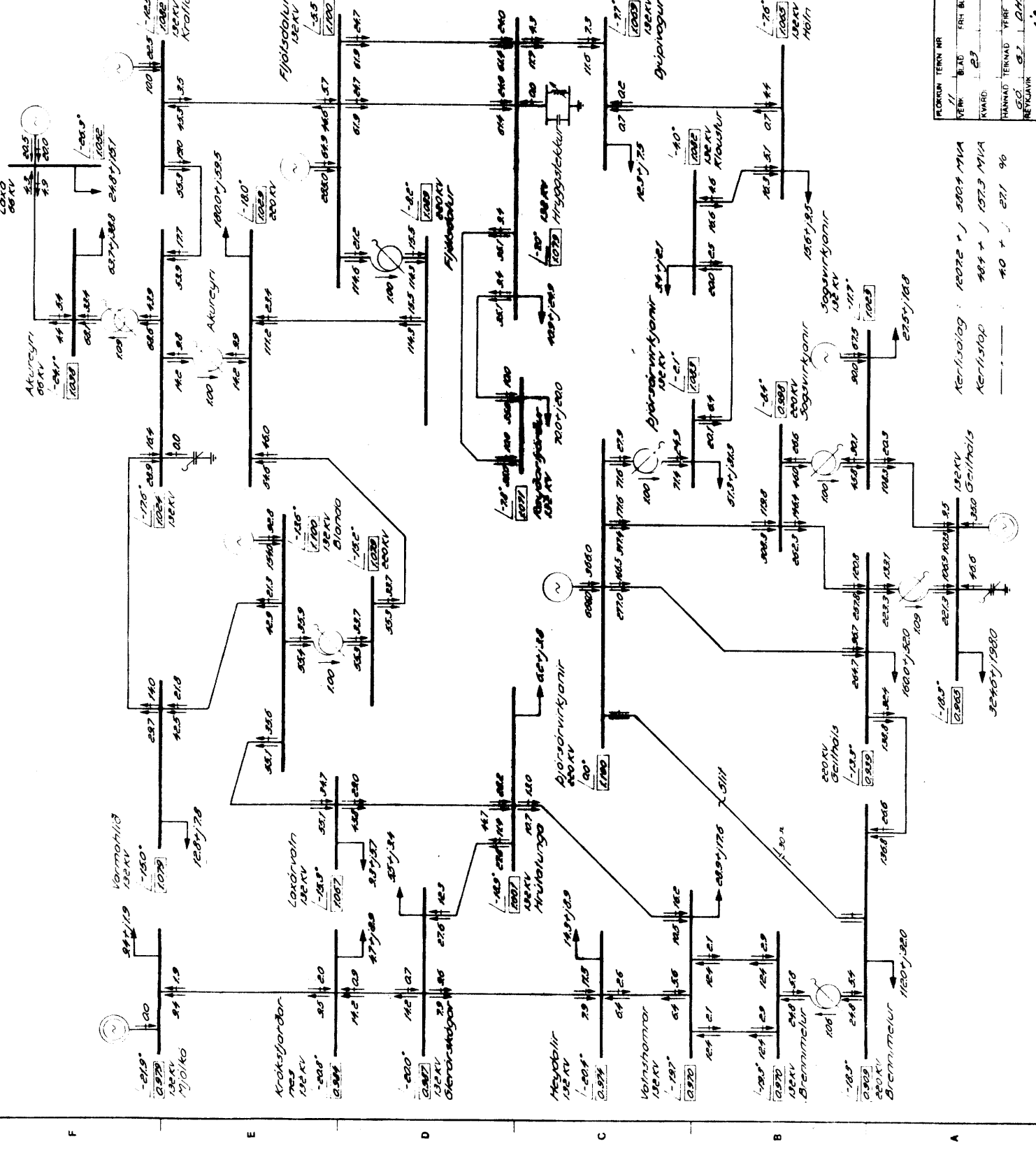
VIKJUNARLEIÐ : 01 **AR :** 1995

Expansion alternative: 01 **AR :** 1995

NY STORIDJA : 151
 New power intensive industry:

Reykjavík 101 MW
 Djóravíkinginn 101 MW
 Brannmálar 101 MW

Rafönnun (1995) 133 2000



F *Skuldar p. Loknuzzi*
 Electric Power Generation

E *Launafirmitjóla*
 Electric Power Generation

D *Spennuhalftill*
 Top setting in pu

C *Þyristryfjall*
 Thyristor-fall

B *Vestfirðir 50 MW*
 Westfirðir 50 MW

A *Virkjunarleiðir til Aldamóta*
 Hydro-power expansion alternatives

IR

VIRKJUNARLEIÐIR
 Expansion alternative: 01

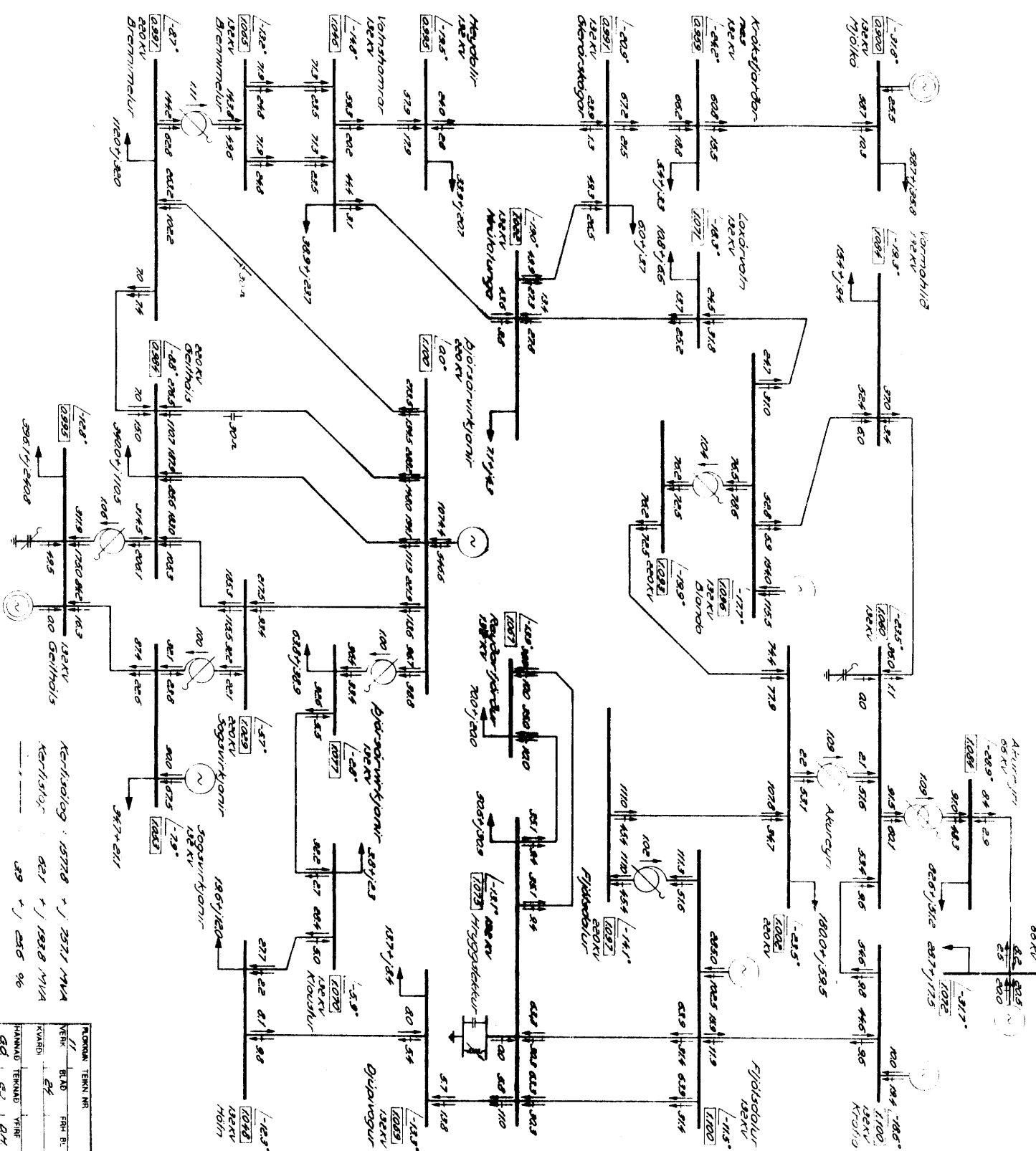
NY STORIDIA
 New power intensive industry:

FLORUM TERN NR	1010	1011	1012
VERK	B10	FRH B	
KWADR	03		
LIÐUNAR TERNAD		101	101
REKINGAR	01	01	01
DES.Ø			1.0

AR : 1995

Reykjavíkorkan 100 MW
Eyðfjörður 100 MW
Gráamalur 100 MW

Rafhönnun
 Annual 45 386 033



Kraflo og 10 MW
 Edlignif ræðstrarfand



VIRKJUNARLEIÐ TIL ALDAMÓTA
 Hydro - power suspension alternatives

VIRKJUNARLEIÐ : 01
 AR : 2000

NY STÖRÐJÁ : 151
 New power intensive industry : Geithóls

FLOKKAR TERNI NR.
 VERN : 11
 BRÁÐ : 24
 FRI. BL.
 KVARN : 24
 HINNAR TERNAR : 151
 FRI. BL.
 FERNVAK : 51
 04

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

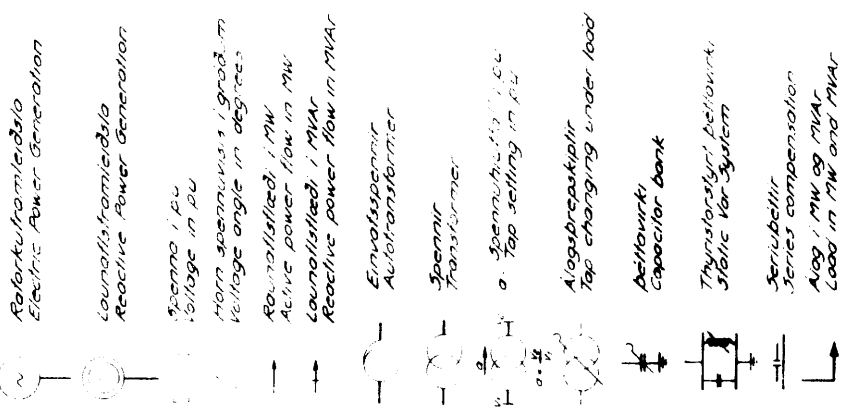
Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

Kraflo og 10 MW
 Edlignif ræðstrarfand

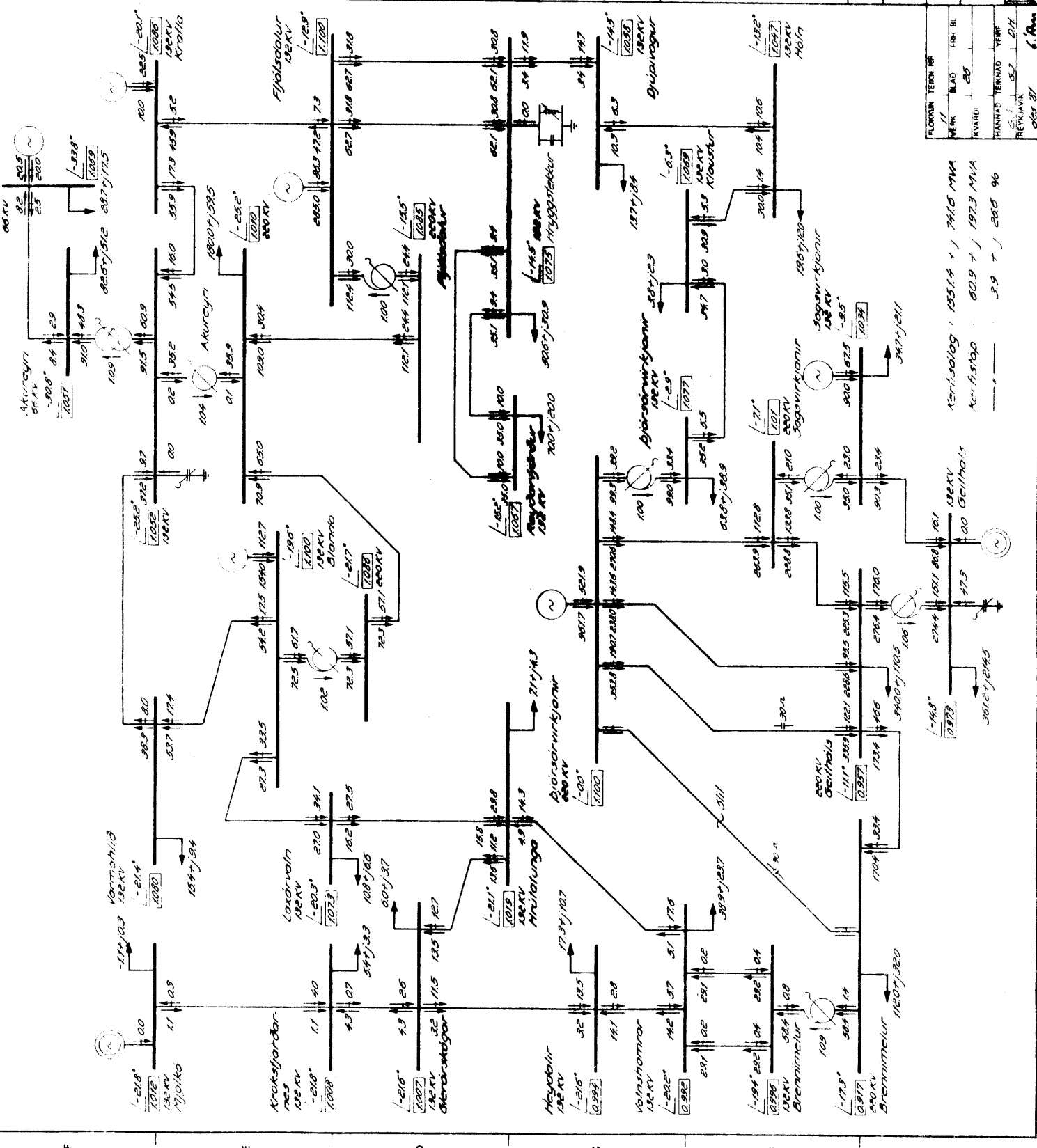
Rafönnun
 AMBLI 42 SM 4033

Stærktækni & Væðing
1987/88



Alugasemur:
 Krafta = 10 MW
 Trauneyfjallshöfn 51117
 R.O yfir á öllu: Vestfirðir 18,6 MW
 Reykjavík 35 MW
 Vestfirðir 50 MW

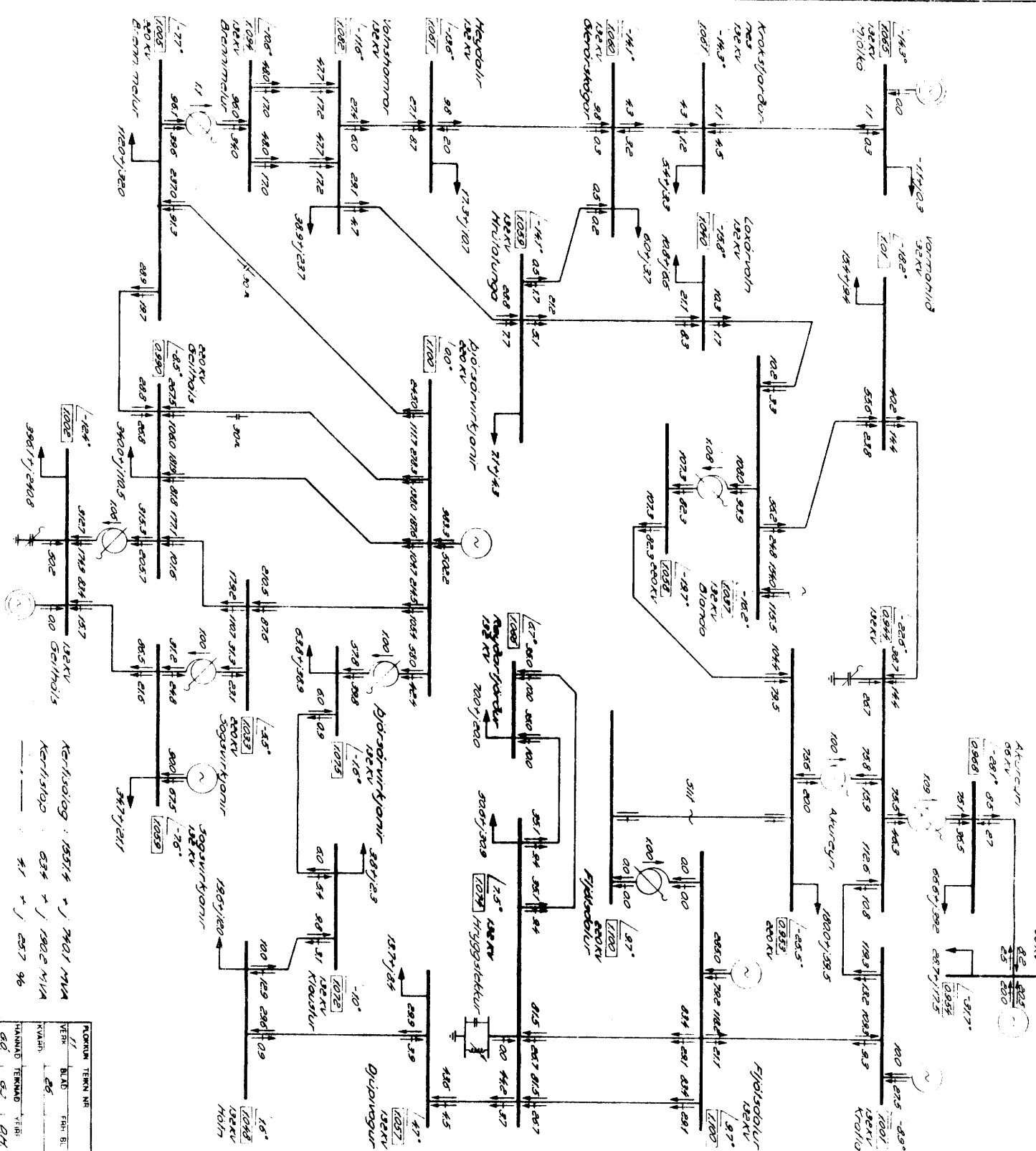
VIRKJUNARLEIÐIR TIL ALDAMÓTA Hydro-power expansion alternatives	VIRKJUNARLEIÐ: 01	AR: 2000
Expansion alternative:	01	Year:
NY STÖRÐJAJA: 151	Reykjavík 30 MW	
New power intensive industry:	Reykjavík 100 MW	
	Aldamóta 30 MW	
	Geitahöls 180 MW	



FLOWING TERM W/F	
WEEK	BLAD FRH. BL
KVARN	50
HANNA'S TEKNAD	VFHF
REYKJAVIK	01 01
01.01	01.01

Kerfið söllog: 195,4 + / 74,0 MVA
 Kerfið söllog: 00,9 + / 19,3 MVA
 3,9 + / 28,0 96

195,4	74,0	00,9	19,3	3,9	28,0
195,4	74,0	00,9	19,3	3,9	28,0



3Kvattnagur & Lokavátt
 43.9 MW
 Hvorkunarmátt
 Electrc Power Generation
 Launvirkunarmátt
 Reactive Power Generation
 Sjónna (P)
 Slóttu spennuvísir (P)
 Voltage source in system
 Rounnláttir (P)
 Active power flow in MW
 Launvirkunarmátt (P)
 Lossive power flow in MW
 Energráttir
 Active power
 Spennuráttir
 Voltage source
 Spennubólta (P)
 Top setting in P.U.
 Alögð-gekkjalir
 Top changing under load
 Þyngslaþing
 Capacitor bank
 Þyngslaþing
 Static var system
 Serubeltir
 Series compensation
 Alogi (P) MW og MWAR
 Load in MW and MWAR
 Aþvagnseignir
 Krafta = 10.7 MW
 Fjölavirkingu stíllir
 P/O gini o önu: Vesturland 168 MW
 Vestfirðir 89 MW
 Vestfirðir 50.7 MW

DE VIRKUNARLEIÐIR TIL ALDAMÓTA Hydro- power expansion alternatives VIRKUNARLEIÐ 01 AR 2000 Expansion alternatives NV STÖRÐJÚLA New power intensive technology 151 Kraftgjörður 30 MW Hvörfullur 20 MW Djúpsdalur 160 MW Geiðholtir 180 MW	FLORIDA ITEM NR 11 VERN 66 KWAB HANNAÐ TERNAD VERN 67	ITEM NR 66 FNI 67
	VIRKUNARLEIÐ 01 AR 2000 Expansion alternatives NV STÖRÐJÚLA New power intensive technology 151 Kraftgjörður 30 MW Hvörfullur 20 MW Djúpsdalur 160 MW Geiðholtir 180 MW	67 68

Skýrslagur og tákmyndir

Reaktív vaxning / Reaktiv Power Generation

Umhverfisvæðing / Environmental Protection

Spenna / Voltage

Meiri spennuvæðing / Higher Voltage

Umhverfisvæðing / Environmental Protection

Reaktív vaxning / Reaktiv Power Generation

Spennutransformator / Voltage Transformer

Spennutransformator / Voltage Transformer

Spennutransformator / Voltage Transformer

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

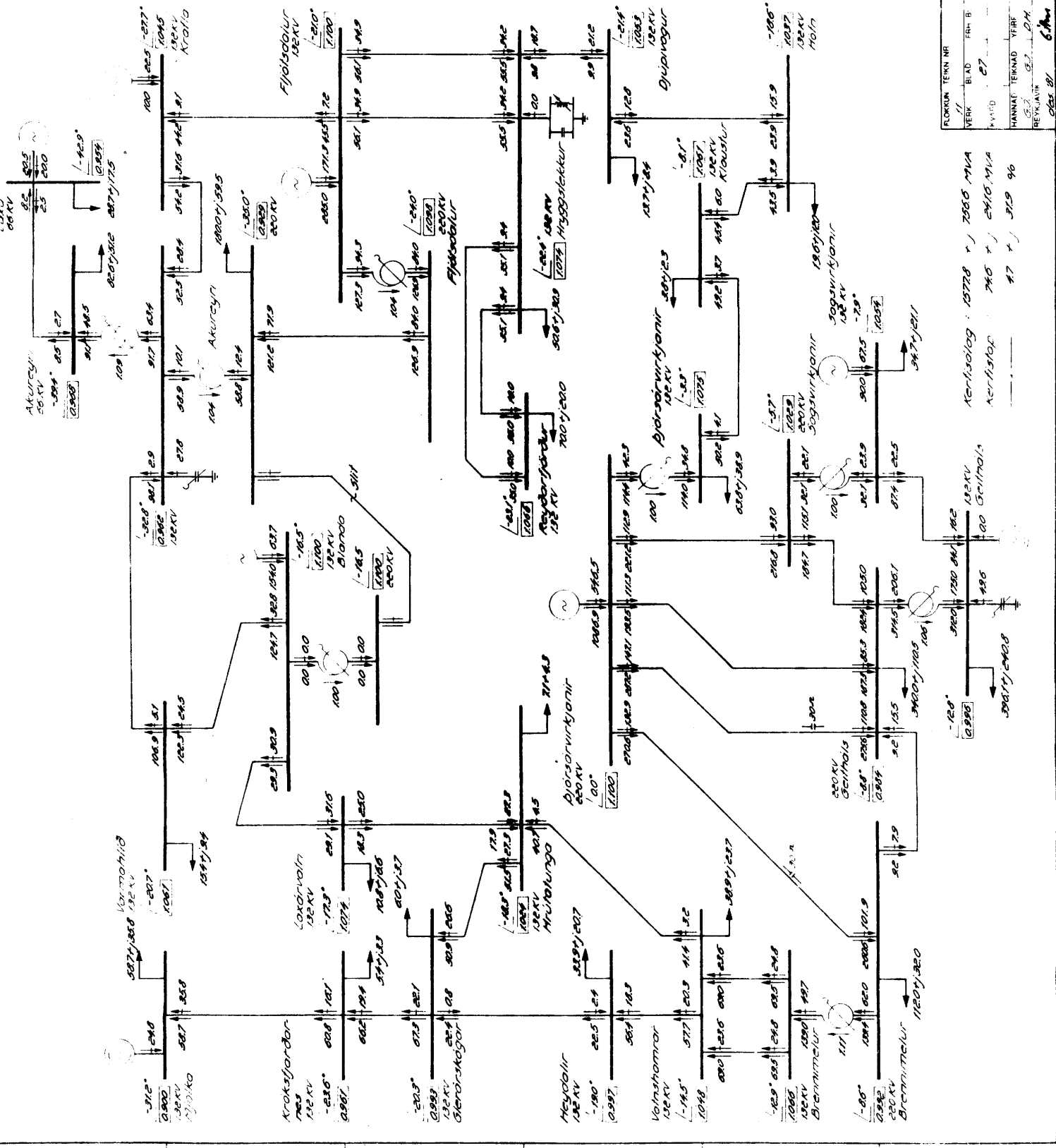
Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

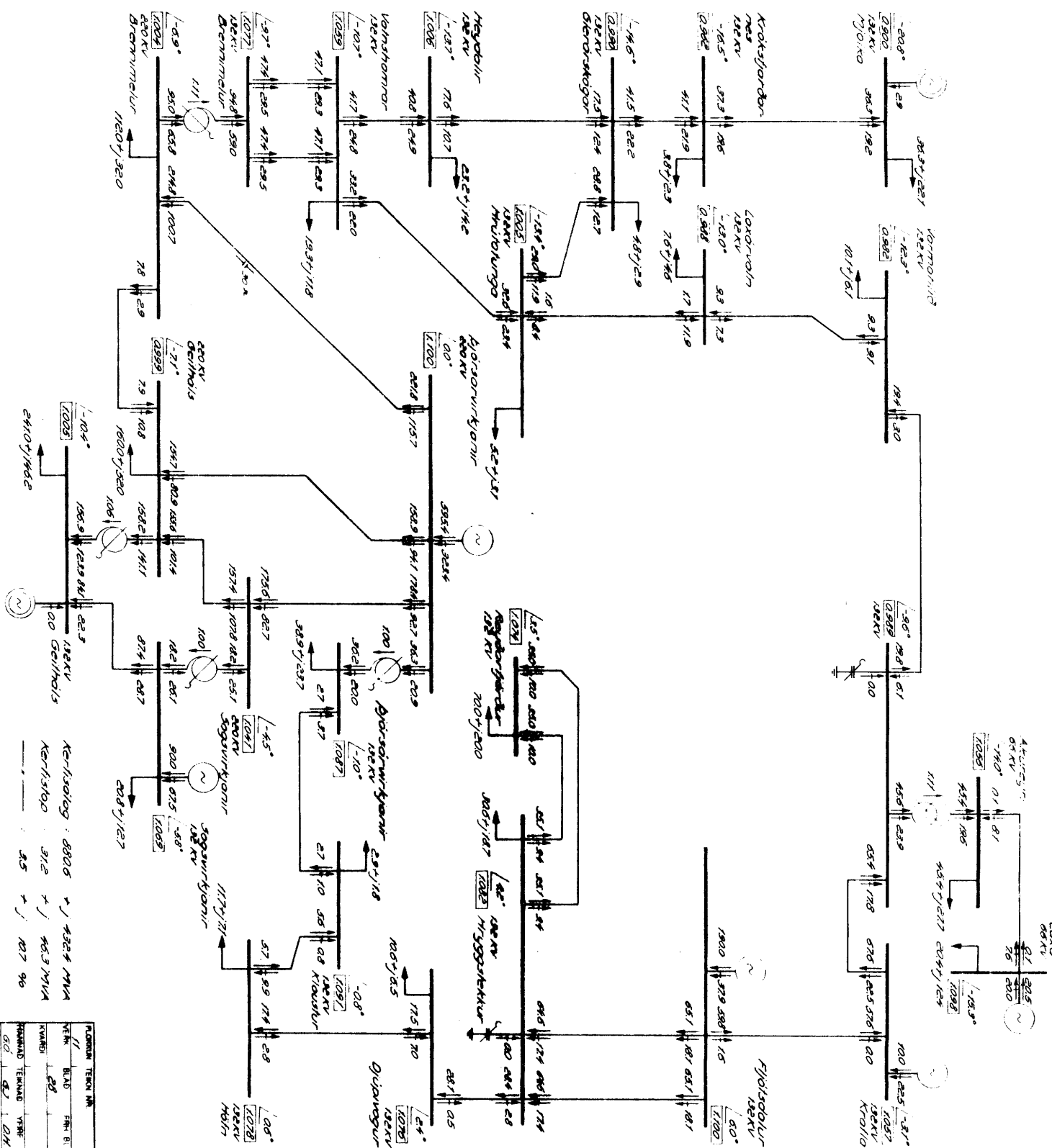
Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker

Alugsbrú / Circuit Breaker



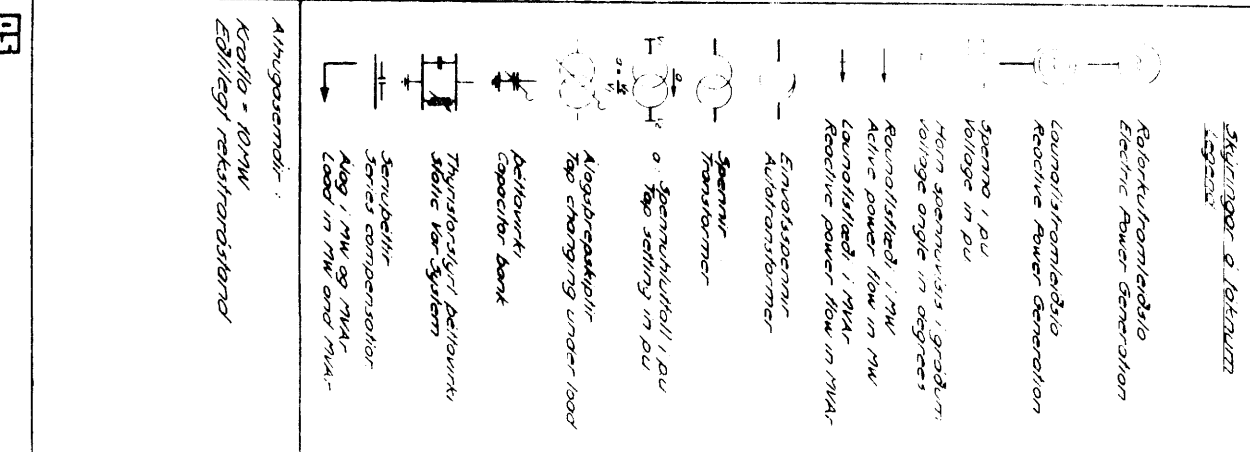
VIKJUNARLEIÐIR TIL ALDAMÖTA Hydro - power expansion alternatives	
VIKJUNARLEIÐ : 01 Expansion alternative :	ÁR : 2000 Year :
NY STORIÐJA : 151 New power intensive industry :	Gerðingunni Construction :
Rekjavík : 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	Rekjavík : 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100



Kehtivool: 8800 A
 Keskivool: 312 A
 Kõikvool: 35 A
 Kõikvool: 107 A

KORDUM	TEKNI	M
20	1989	
21		
22		

VIIRKUNVARLEIDR TIL ALDAMKOTA
 Hydro-power expansion alternatives
VIIRKUNVARLEID: 02 AR: 1989
 NY STORIDIA: 151 Reguleeritud toim
 New power intensive industry: Dammituulur toim



Raföör
 Kõikvool = 10 MW
 Edilise rekonstratsioon

Skýringar e. Tolkningar
Legend

Raforkunarmiðala
Electric Power Generation

Lögnisframlagsala
Reactive Power Generation

Spanna í pu
Voltage in pu

Mark spennuvissis í gráum
Voltage angle in degrees

Rögnulsliði í MW
Active power flow in MW

Lögnulsliði í MVAR
Reactive power flow in MVAR

Einvölsþennir
Autotransformer

Spennir
Transformer

Spennuhaltali í pu
Tap setting in pu

Alösbregskapillir
Tap changing under load

Beilvirkir
Capacitor bank

Thyrsturábyrgi beilvirkir
Static Var-System

Serúþellir
Series compensation

Álag í MW og MVAR
Load in MW and MVAR

Afhugasemdir:
Kraflo = 10 MW
Línur Akureyri - Kraflo slitin
Dissill: Akureyri 167 MW



VIKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIKJUNARLEIÐ: 02
Expansion alternative: 02

NY STÖRÐJA
New power intensive industry: 151

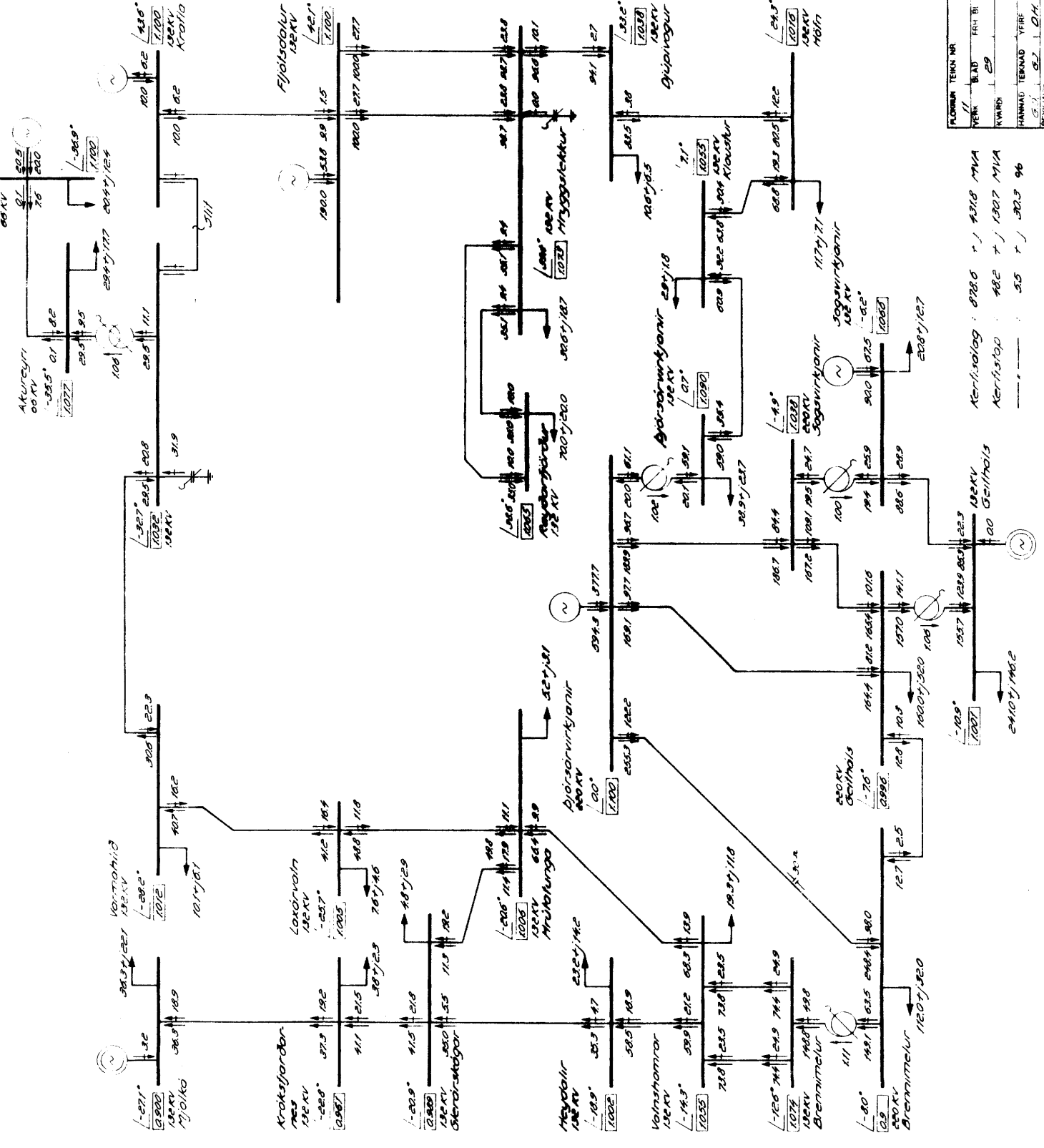
Raffönnun
ARNULLI 22. Sm 84333

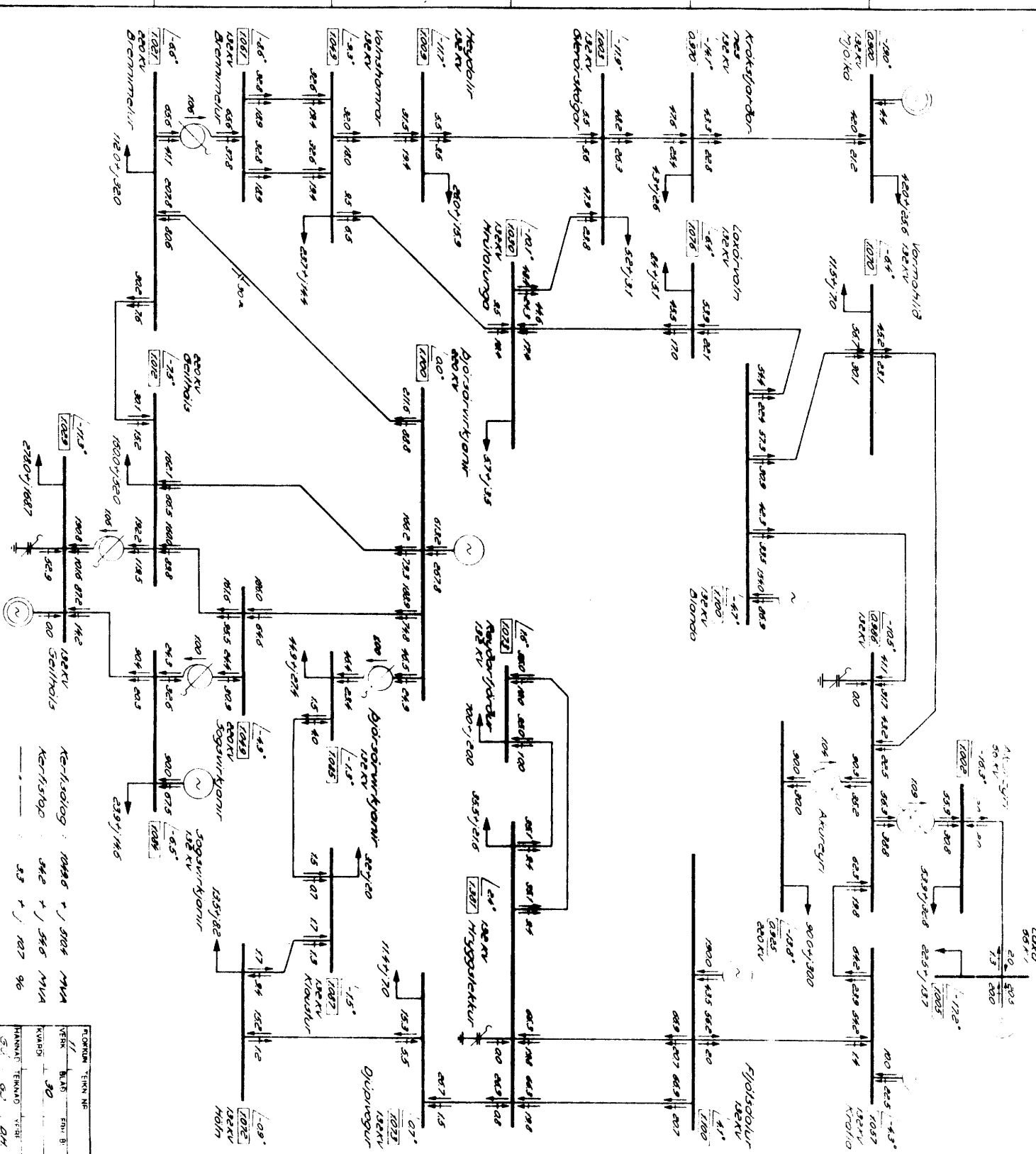
FLÖMUR	TEKNI	NR
VEIK	BLAÐ	FRU BI
KVAÐS	29	
HANNAÐ	TEKNAÐ	VEFIR
REV. 21	82	04
REV. 21	82	04

Kerfisslag:	8280	+	1	4318	MVA
Kerfisslag:	882	+	1	1307	MVA

100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV

100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV
100KV	100KV	100KV	100KV	100KV	100KV





<p>Styring og Notkun</p> <p>Rotuformlendis Electric Power Generation</p>	<p>Lounnformlendis Reactive Power Generation</p> <p>Stærni 1.0V</p> <p>Þurr 3000V/1.5V/1.0V</p> <p>Reactive Power flow in MW</p>	<p>Round 1.5V/1.0V</p> <p>Active power flow in MW</p> <p>Reactive power flow in MW</p>	<p>Stærni 1.0V</p> <p>Auto-transformer</p>	<p>Stærni 1.0V</p> <p>Transformer</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>	<p>Stærni 1.0V</p> <p>Stærni 1.0V</p>
--	--	--	--	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------

Skýringar á lögmálum
Sýgðir

Raforkunarmátt
Electric Power Generation

Lögnisframlæða
Reactive Power Generation

Spanna í þu
Voltage in p.u.

Mótt spennuvísir í græðni
Voltage angle in degrees

Rafvæðing
Active power flow in MW

Lögnisframlæði
Reactive power flow in MVA

Einvalsspennir
Auto-transformer

Spennir
Transformer

Spennubrotfall í þu
Tap setting in p.u.

Alöggsbráskiptir
Tap changing under load

Þölvinn
Capacitor bank

Þyrnskjótti þölvinn
Static var system

Seruballir
Series compensation

Alög / MW og MVA
Load in MW and MVA

Alögusemali
Line

Kraflo = 10 MW
Line

Alögusemali
Line

Alögusemali
Line

Kraflo = 10 MW
Line

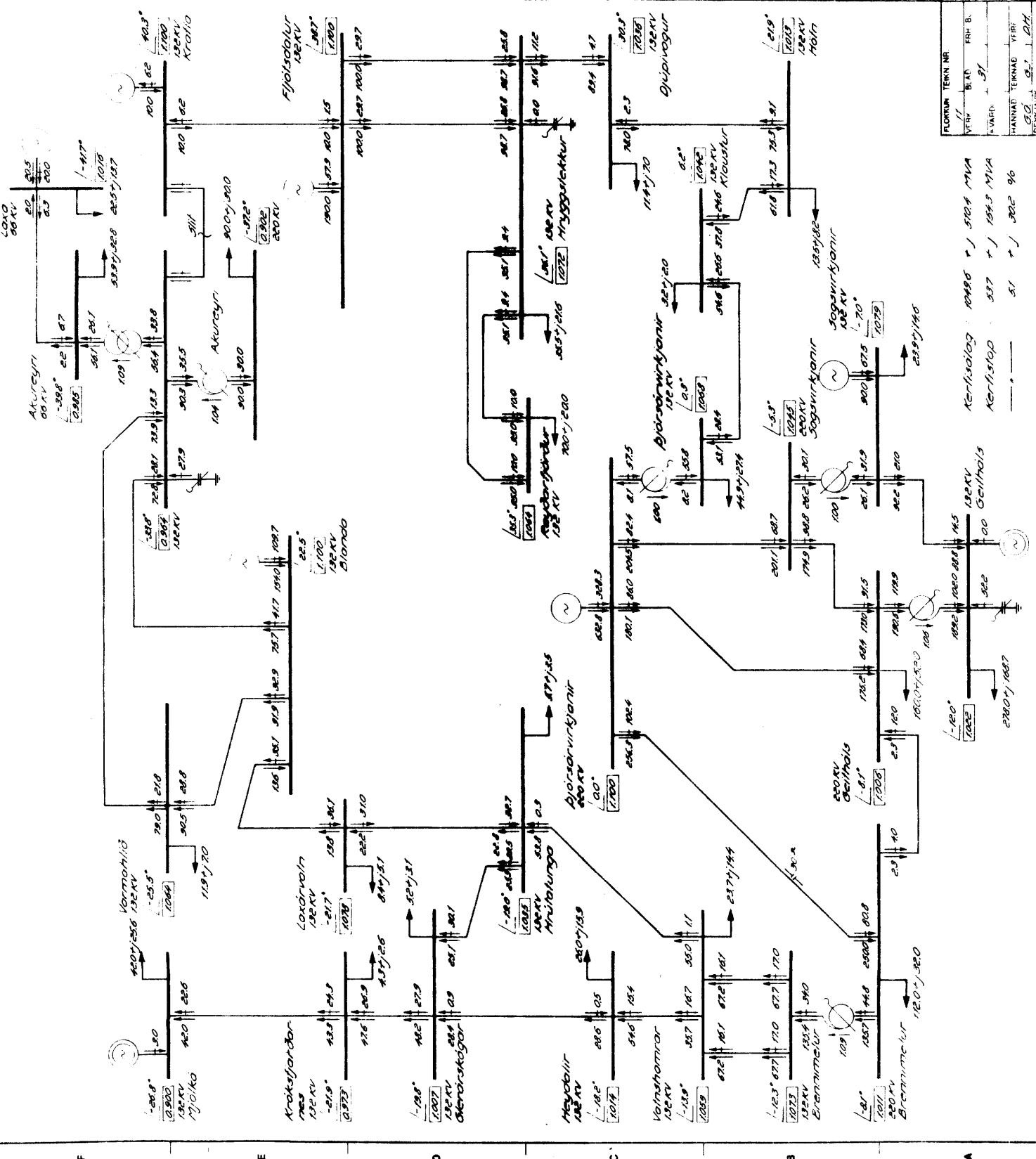
Alögusemali
Line

VIRKJUNARLEIÐ TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 02 AR : 1992
Expansion alternative : Year

NY STÖRÐJA : 151 Reyðarförður 20 MW
New power intake : Eyjaförður 50 MW
Brennisteinur 20 MW

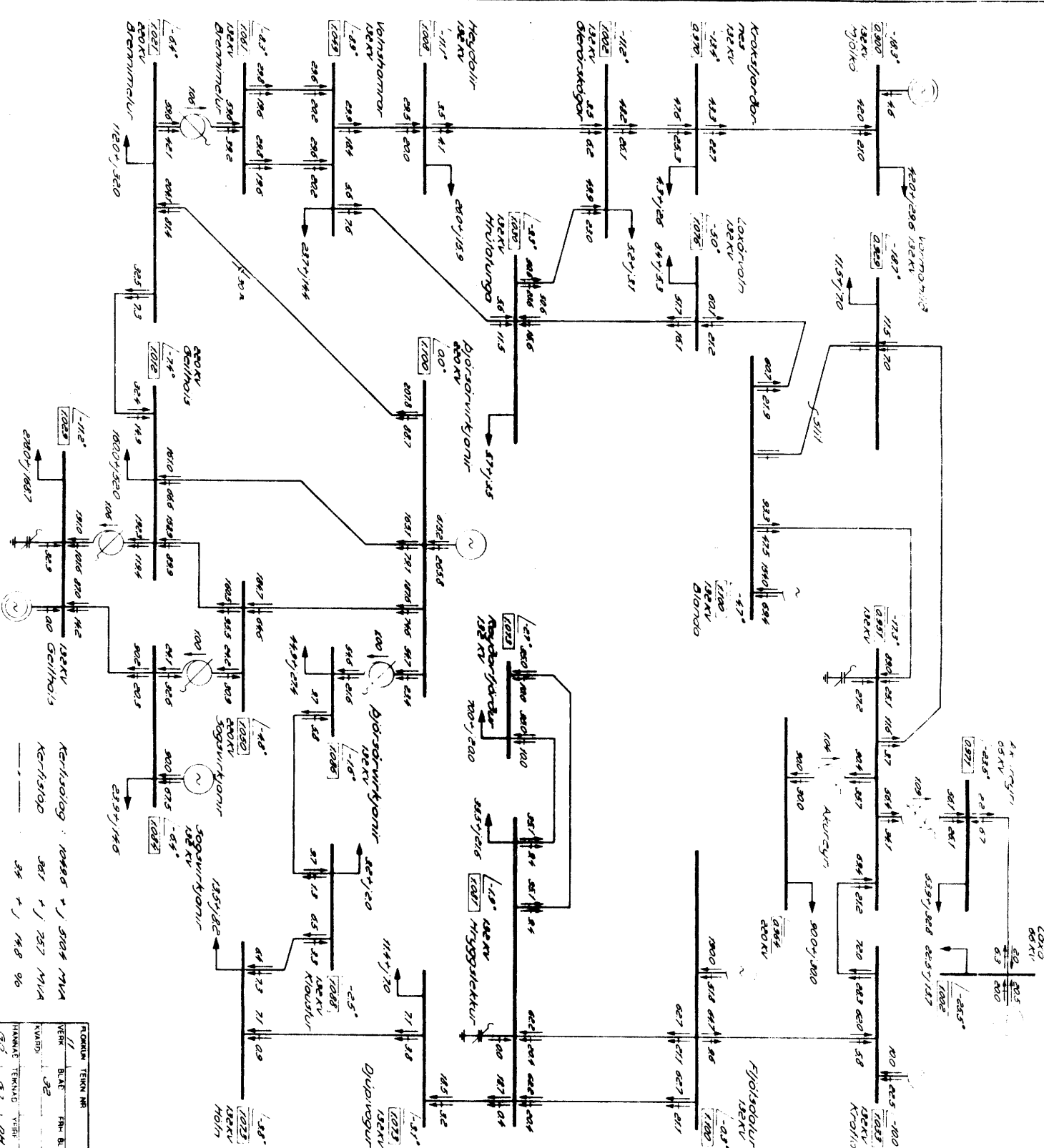
Rafhönnun
ANNEX 42 SW 8483



FLÖKKUR	TEKNI NÚM.
VIRKJUNARLEIÐ	02
NY STÖRÐJA	151
HANNAÐ TERNAD	9.7
REYKJUNIR	5.7
YFIR	2.4
ÖS	81

VERKJUNARLEIÐ	ÁR
02	1992

VERKJUNARLEIÐ	ÁR	NY STÖRÐJA	NY STÖRÐJA	NY STÖRÐJA
02	1992	151	151	151



SKULOGI 2 TOKULLT
 1.2.2022

Rafskulfræmðisla
 Elektrísk Generöslun

Laufhæðarfræmðisla
 Reactive Power Generation

3-fasanna 1.0U
 Voltlage in pu
 Horn samhverfa 3-fasna
 Voltlage árgle in degrees

Rauðhæðarfræmðisla
 Active power flow in MW

Laufhæðarfræmðisla
 Laminarized 1.0U
 Reactive power flow in MVAR

Engulfræmðisla
 Auto-transformer

Spennu
 Transformer

Afgjafskakill
 Top charging under 1000

Þakkeri
 capacitor bank

Þrasörsluþras
 static var system

Gerubællir
 series compensation

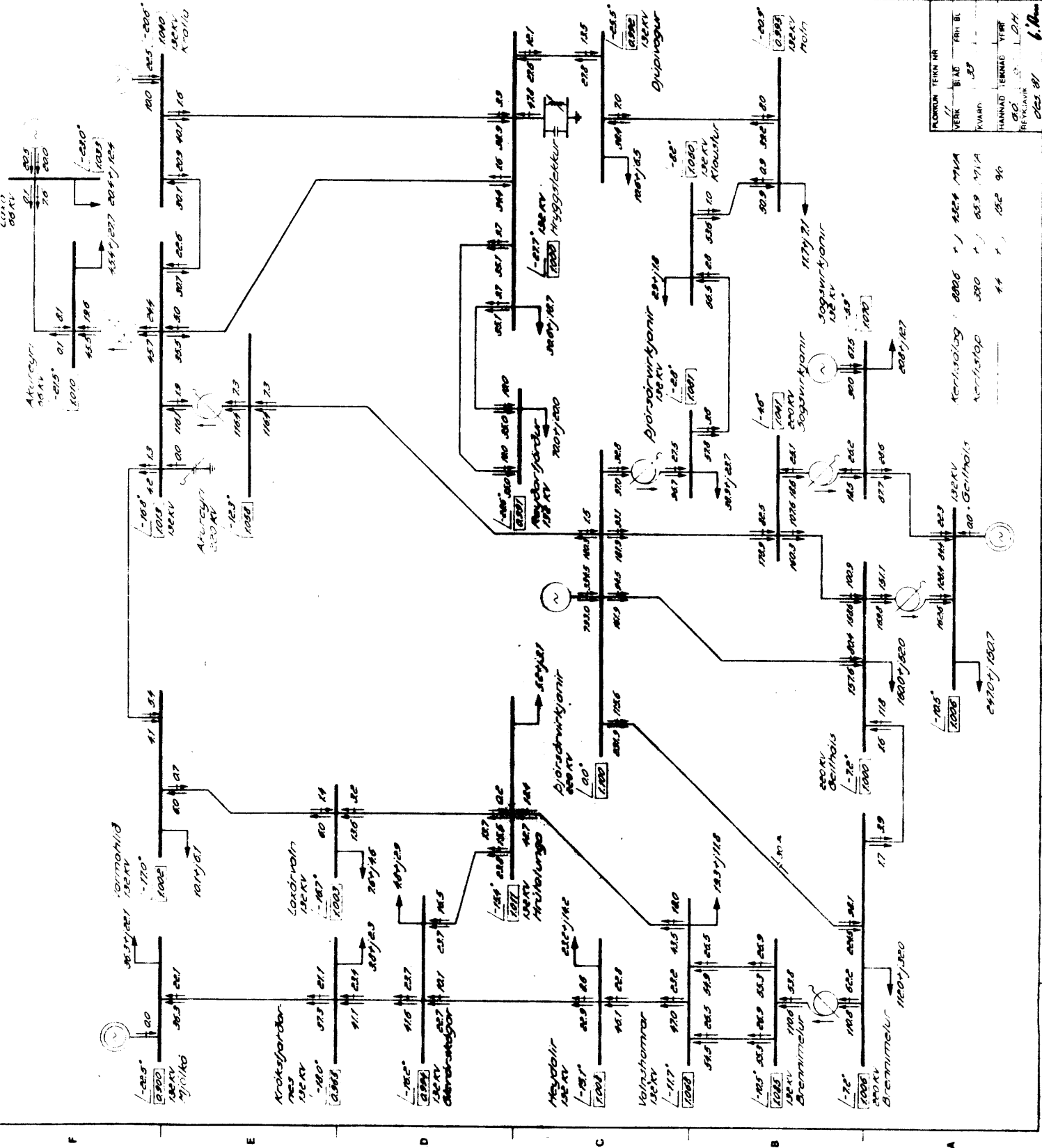
Afgjafskakill
 load in MW and MVAR

Almýsgætt
 Kraflo 10 MW
 Línan blanda-fermalhúð silhútt

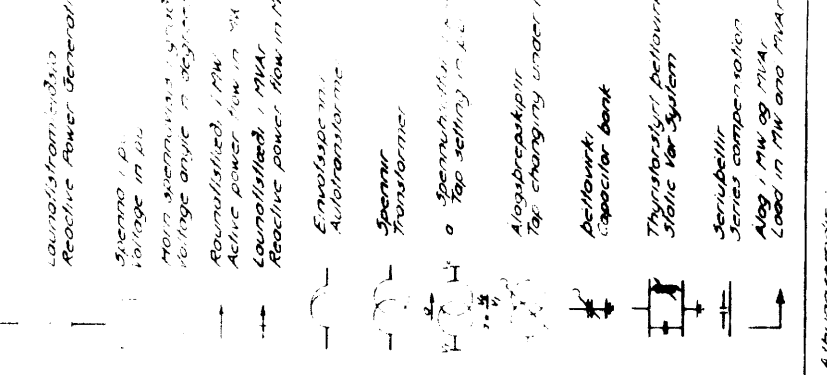
VIRKUNARLEIÐIR TIL ALDREI
 Hydro power expansion alternatives

VIRKUNARLEIÐ : 02 AR : 1992
 Expansion alternatives : AR : 1992

NY STORIDJA : 151
 New power intensive industry : Bergshvönn 20 MW



Ábyrging og lögnunir
 Raforkumleiðsla
 Electric Power Generation
 Lagnunströngunir
 Reactive Power Generation
 Spennu- og
 Voltage in kV
 Hótt spennu- og
 Voltage angle in degrees
 Rannsóknir
 Active power flow in MW
 Lagnunir
 Reactive power flow in MVAR



Athugasemdir
 Kraftlo = 10 MW
 Edillagði rökfræðisland

VIRKJUNARLEIÐIR TIL ALDAMÖTA Hydro - power expansion alternative	
VIRKJUNARLEIÐ Expansion alternative: 03	ÁR Year: 1989
NY STÖRVIDIA New power intensive industry:	
Kraftgjafarður 20 MW 151	Örnsmíðar 20 MW 151

FLOWER TERM NR VERK YEAR KVARN HANNAÐ REFINANNAÐ 025-81	PH. BL 35 TYP 1.24 1.24
1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000	1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

Styringargættir
Control System

Raforkunarmáttur
Electric Power Generation

Lögnisframiðsla
Reactive Power Generation

Spanna í þu
Voltage in pu

Þetta spennuvísir
Voltage angle in degrees

Röngulíftáttur í MW
Active power flow in MW

Lögnisframiðsla í MVAR
Reactive power flow in MVAR

Einvölsþennir
Auto-transformer

Spennufléttur í þu
Tap setting in pu

Alögðþröskulur
Tap changing under load

Þellur
Capacitor bank

Þyrsturáttur þellur
Static var system

Þermbellur
Series compensator

Alögð í MW og MVAR
Load in MW and MVAR

Alögðarmáttur
Load

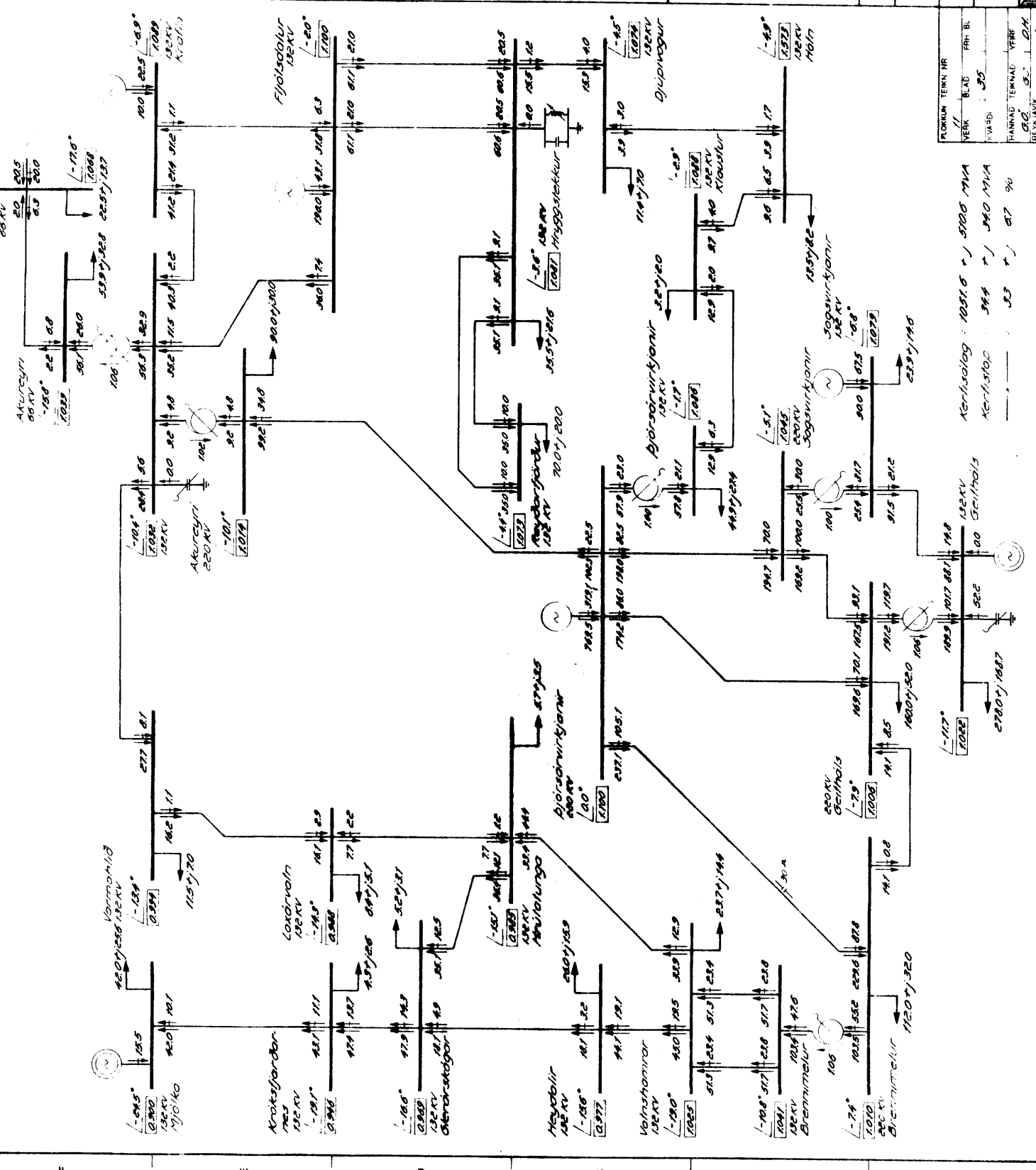
Krafta = 10 MW
Edlilegt rekstrarástand
Normal operating condition

Virðingarmáttur
Hydro power expansion alternatives

Virðingarmáttur = 0,3
Expansion alternative

Ný Stóriðja = 157
New power intensive industry

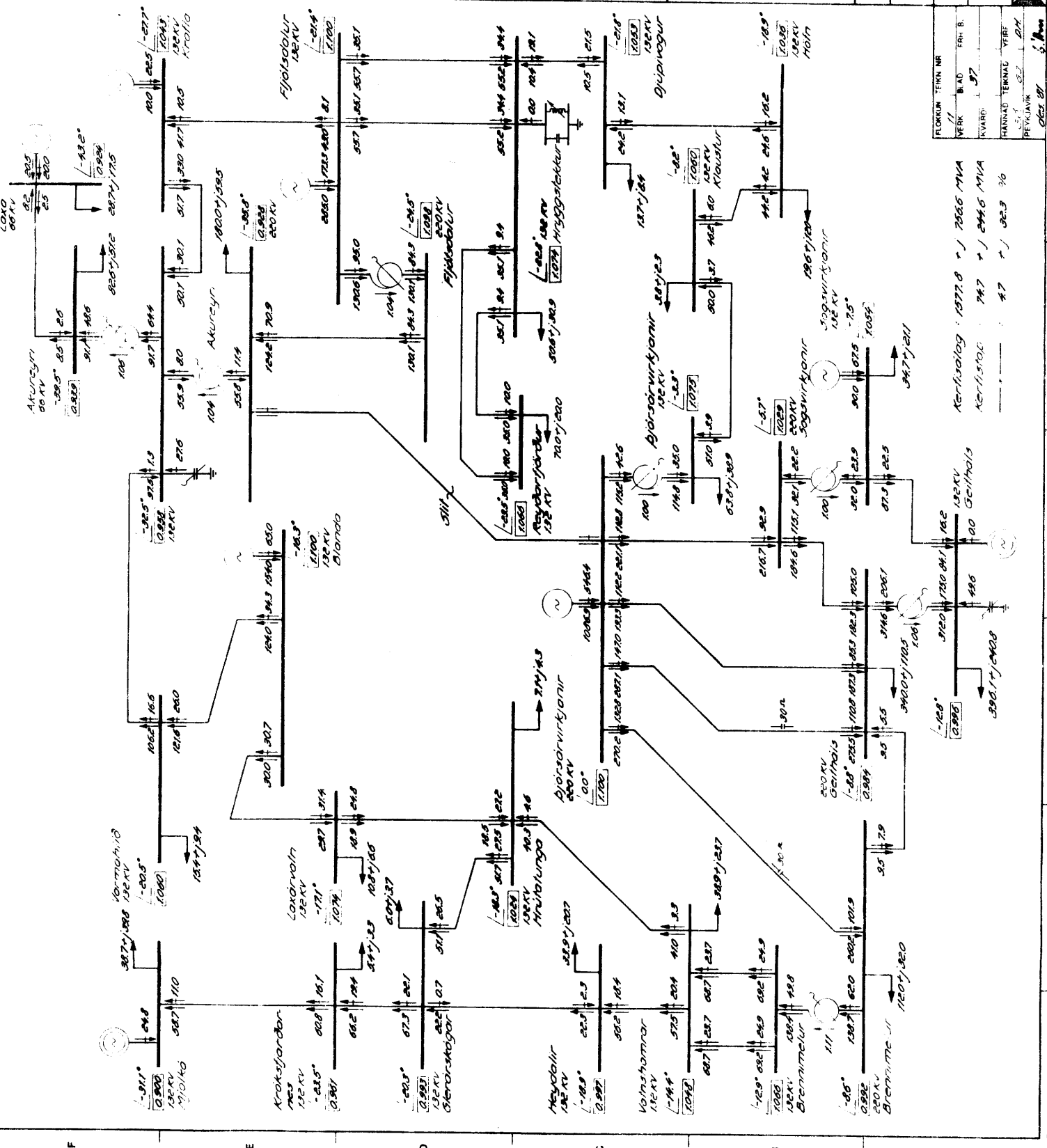
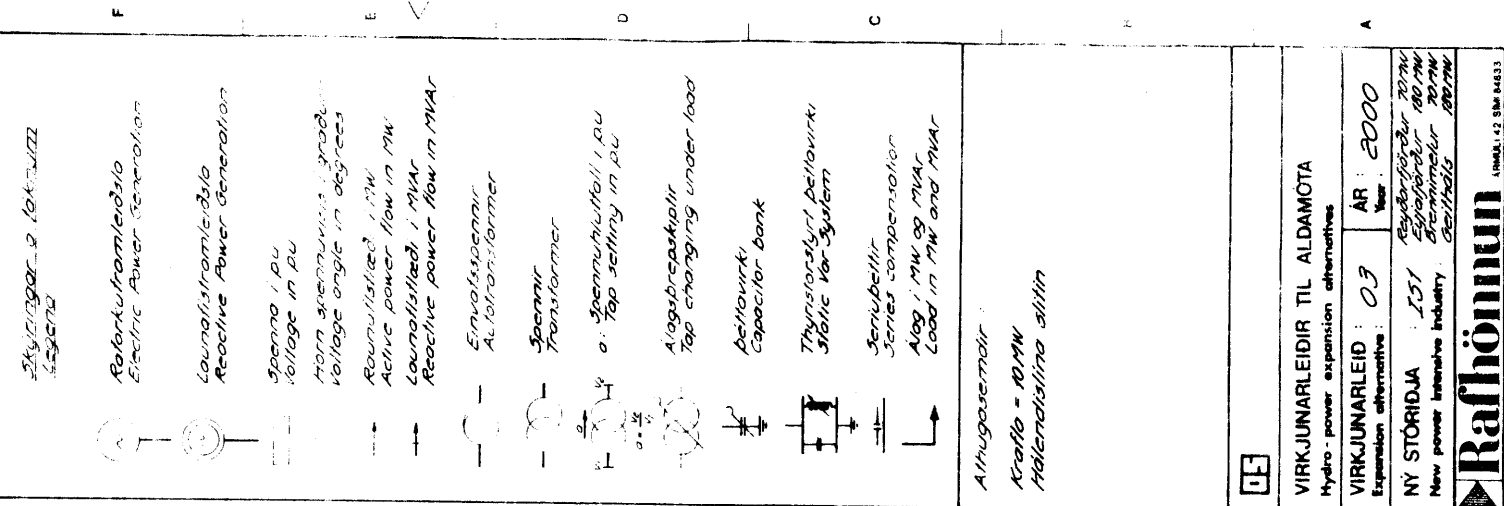
Rafhönnun
INWELL 1.8.84



FLÖKUN	TEKNI	NR
VEUR	BLAS	PH: BL
VIÐB.	35	
FRANNAÐ	TEKNAÐ	VEUR
REKINGUN	35	1.8.84

Kerfiálag	1081,6	+	5100	MVA
Kerfiálag	344	+	340	MVA
	33	+	87	90

Virðingarmáttur	1081,6	+	5100	MVA
Virðingarmáttur	344	+	340	MVA
Virðingarmáttur	33	+	87	90



VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

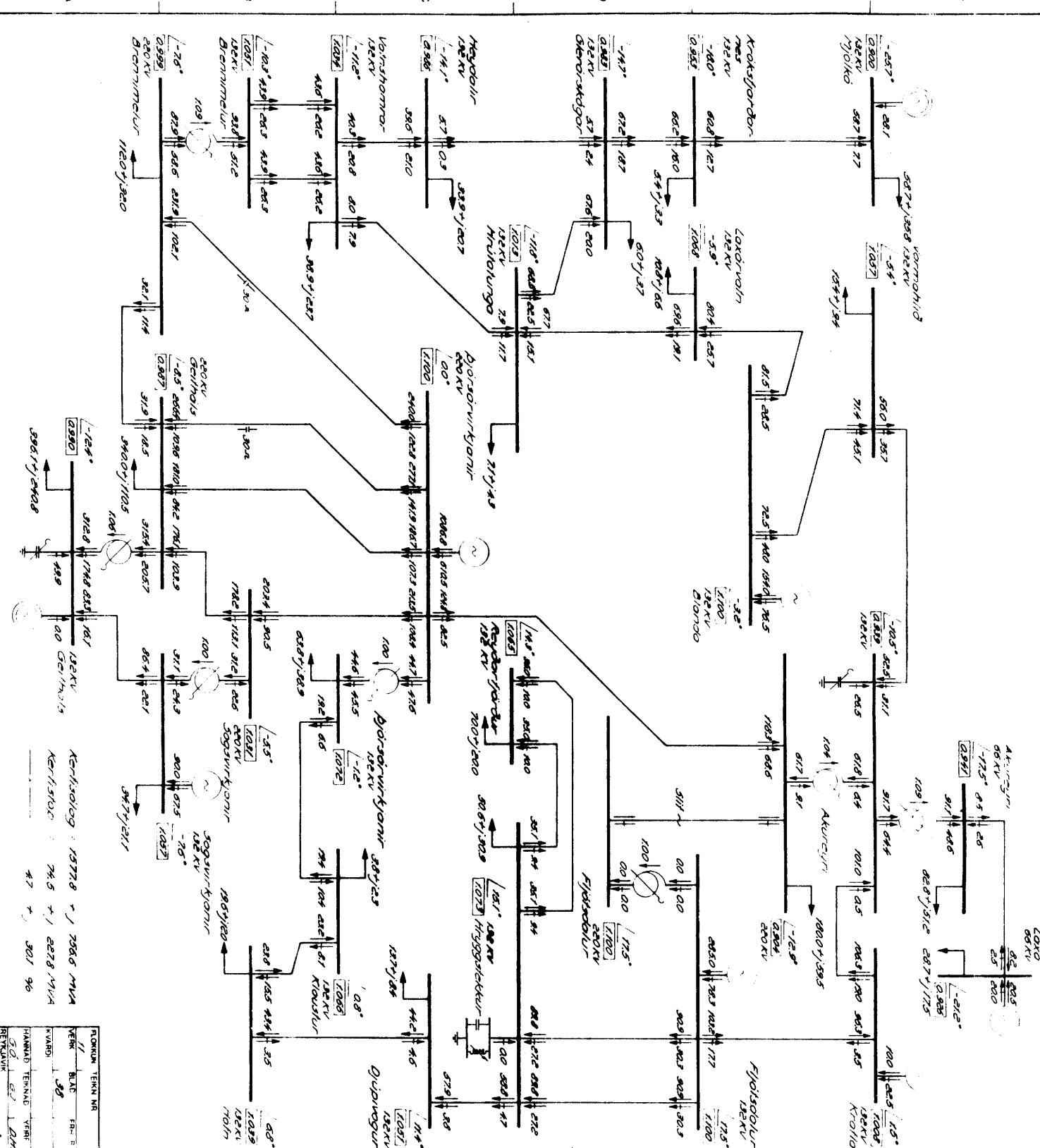
VIRKJUNARLEIÐ : 03 **AR :** 8000
Expansion alternative: Year

NY STÖRÐJÁ 151
New power intensive industry 20 MW
Geitihóls 20 MW
Geitihóls 180 MW
Geitihóls 180 MW

FLOKKNIR TERN NR	
VERK	BLÁD ERH. B.
KVARNAD	L 37
HANNAÐ	TERNAK VÍRF
BEVJAVIK	065 87 6.7

Terntalvísing : 1977.8 + / 7566 MVA
Terntalvísing : 1987 + / 2446 MVA

Terntalvísing : 1987 + / 32.9 %



FLOKUR TEKNI NR. 1
 TÆK. 1
 TAVAR 1
 HANNAÐ TERNALD TÆK. 1
 REYKUN 1

VIRKJUNARLEIÐIR TIL ALDAMÖTTA
 Hydro-power expansion alternatives
 VIRKJUNARLEIÐ : 03
 AR : 2000

NY STÖRÐIÐIA 151
 New power intensive industry :
 Reykjavíkurbær 200 MW
 Eimskipafélag 200 MW
 Alþingisráðgjafi 200 MW
 Gæðingafélag 200 MW

Athugasemdir :
 Koffi = ÖNN
 SIN d Fjeldölslinnu

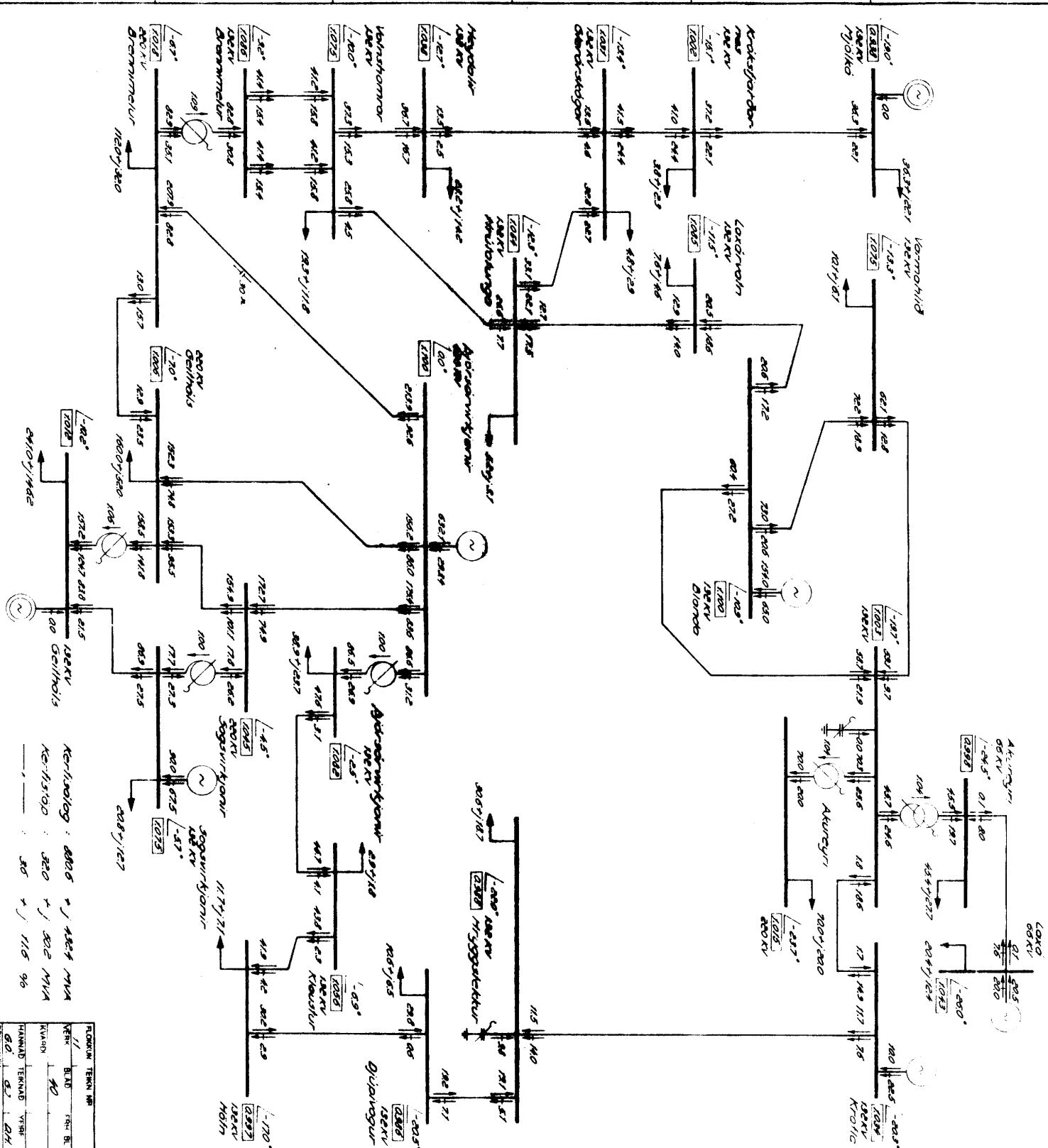
Sérubeltir
 Series compensation
 100 / MW og 7.5 kV
 Load in MW on : 7.4

Spenningar
 Voltage
 0: Spennubólur 175 kV
 1: Top setting in 175 kV

Aðgæðing
 Tap changing under load
 Sérubeltir
 Voltage
 0: Spennubólur 175 kV
 1: Top setting in 175 kV

Rotorframlagslo
 Reactive Power Generation
 Landaframlagslo
 Reactive Power Generation
 30000 / 0 V
 Voltage in pu
 Horn spennuvísir
 Voltmeter
 Rannsóttafélag 1 MW
 Active power flow in MW
 Landnóttafélag 1 MW
 Reactive power flow in MW

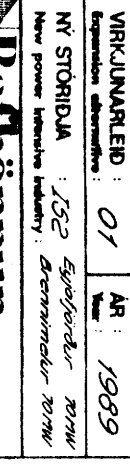
Skjalnúmer 2 TERNALD
 Lýsing



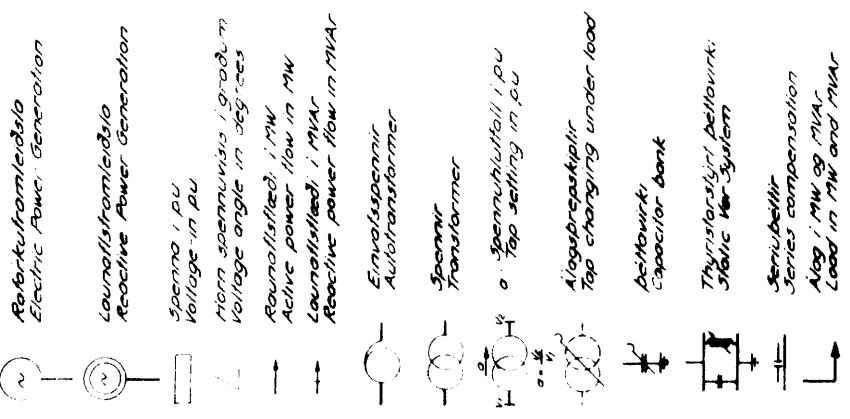
Korflokkur: 8806 + 4863 MW
 Korflokkur: 820 + 802 MW
 85 + 116 96

FLÓÐUR	TEKNI NÚM.
1/1	BLÍÐ
2/1	TEKNI NÚM.
3/1	TEKNI NÚM.
4/1	TEKNI NÚM.
5/1	TEKNI NÚM.
6/1	TEKNI NÚM.
7/1	TEKNI NÚM.
8/1	TEKNI NÚM.
9/1	TEKNI NÚM.
10/1	TEKNI NÚM.

VIRKUNARLEIÐIR TIL ALDAMÓTA
 Hydro - power expansion alternative
VIRKUNAREIÐ : 01 **AR : 1989**
NY STÖRÐIA : 152 Eignarforðir 20MW
 New power intensive industry: Drömmavöður 20MW



Skýringar á táknaum
Legend



Robrikraftmagn
Electric Power Generation

Lauðisframi/eisla
Reactive Power Generation

Spenna í þu
Voltage in pu

Magn spennuvissu / gæðum
Voltage angle in deg/deg

Rönnuflæði / MW
Active power flow in MW

Lauðisflæði / MVAR
Reactive power flow in MVAR

Einvalsspennir
Auto-transformer

Spennuflæði í þu
Tap setting in pu

Álagsregnskjalir
Tap changing under load

Þéttvirkir
Capacitor bank

Thyrstirskjalir þéttvirkir
Static Var-System

Semiballir
Series compensation

Álag / MW og MVAR
Load in MW and MVAR

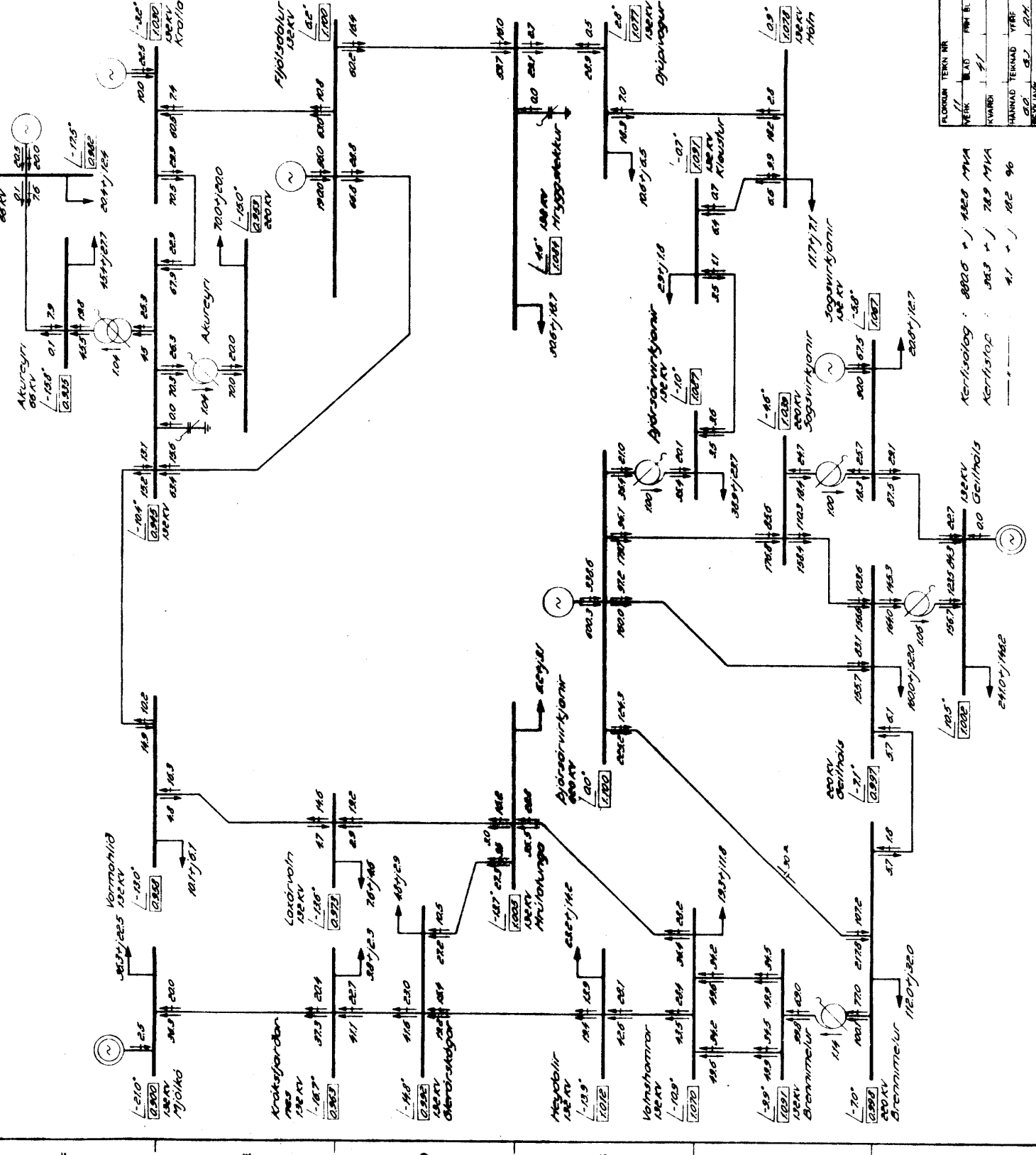
Áhugasemdir
Notes

Kröfva = 10 MW
Eðlilegt rekstrarstand
Normal operating condition

VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ	02	ÁR	1989
Expansion alternative		Year	
NY STÖRÐJÁ	152	Eyjafjarðar	20 MW
New power intensive industry		Strannmálar	20 MW

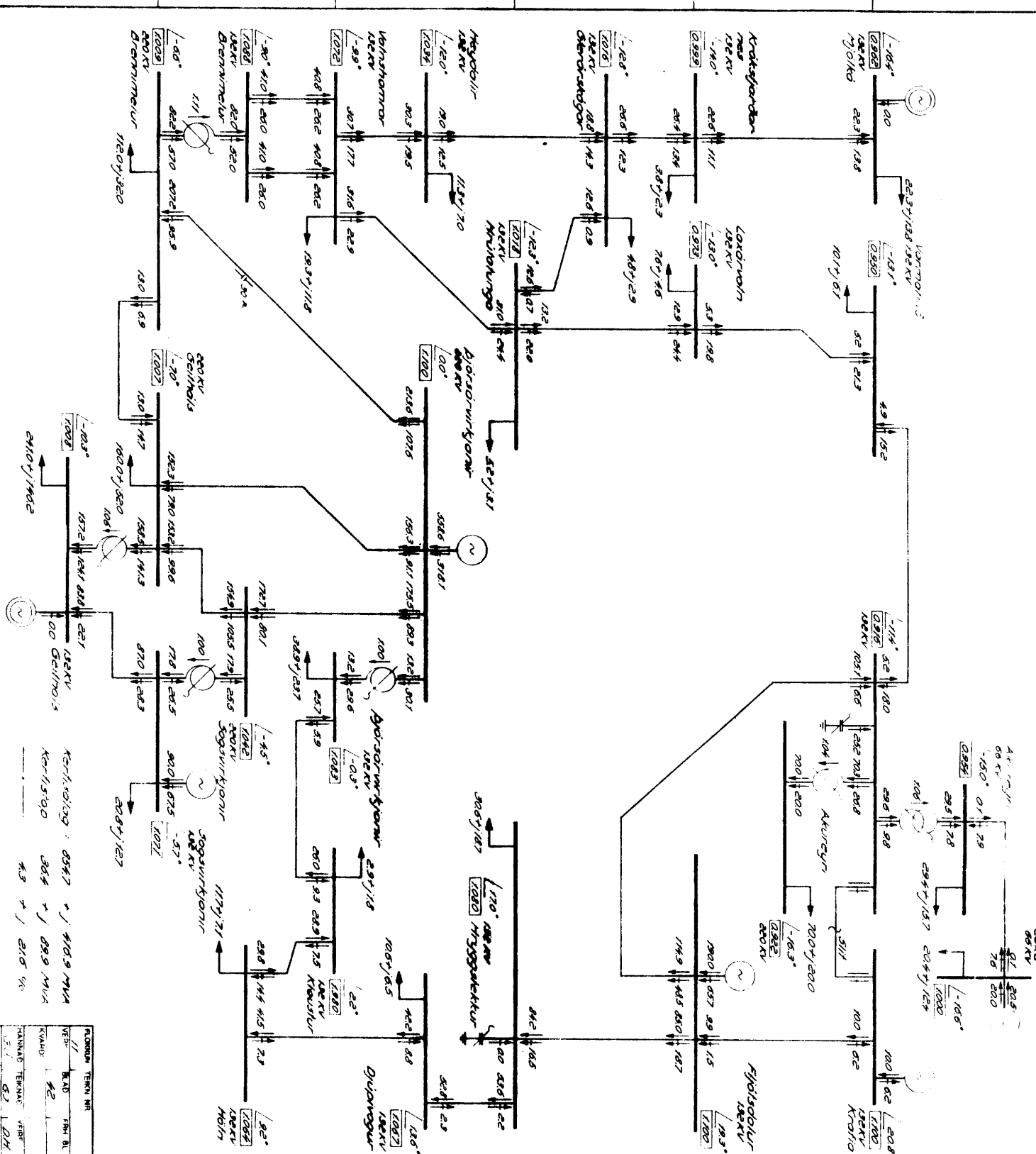
Raffiðmun
ANNAU 42 20 0433



FLUGMÁL TERN NR	
TEK	BLÁ
KVARN	91
UNNIÐ TERNUM	20
REKINGAR	02
025 01	6.A

Kerfiþyng : 8000 x j 1820 MW
Kerfiþyng : 583 x j 789 MW
Kerfiþyng : 91 x j 102 96

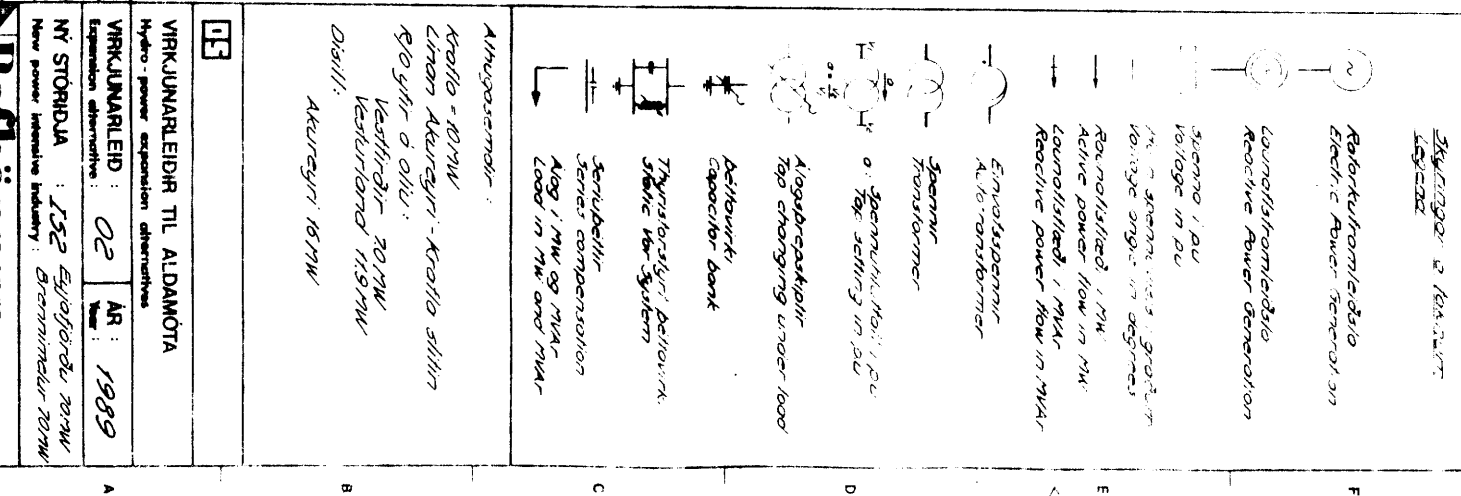




Kemi: 101329 : 8547 * / 410.9 MVA
 Kerfi: 5700 : 884 * / 89.9 MVA
 4.3 % / 210 %

LEIÐA	TERMIN	NR
1872	BLAD	187
1872	TRAF. BL.	187

VIKJUNARLEIÐIR TIL ALDAMÖTA
 Hydro - power expansion alternatives
VIKJUNARLEIÐ : 02 **AR :** 1989
NY STÖRÐIA : 152 Eyjafeldi 20 MW
 New power intensive industry : Þröngumelur 20 MW



Skýringar o lótarvörð

Raforkuframleiðsla
Electric Power Generation

Launalisfræmleidd
Reactive Power Generation

Spenna í DV
Voltage in DV

Horn spennuvissis í gráður
Voltage angle in degrees

Rauðvísir, MW
Active power flow in MW

Launalisfræmleidd, MVAR
Reactive power flow in MVAR

Einvölsþennar
Auto-transformer

Þennar
Transformer

Spennuhlutfélling
Tap setting in DV

Álagsþreaskiplir
Tap changing under load

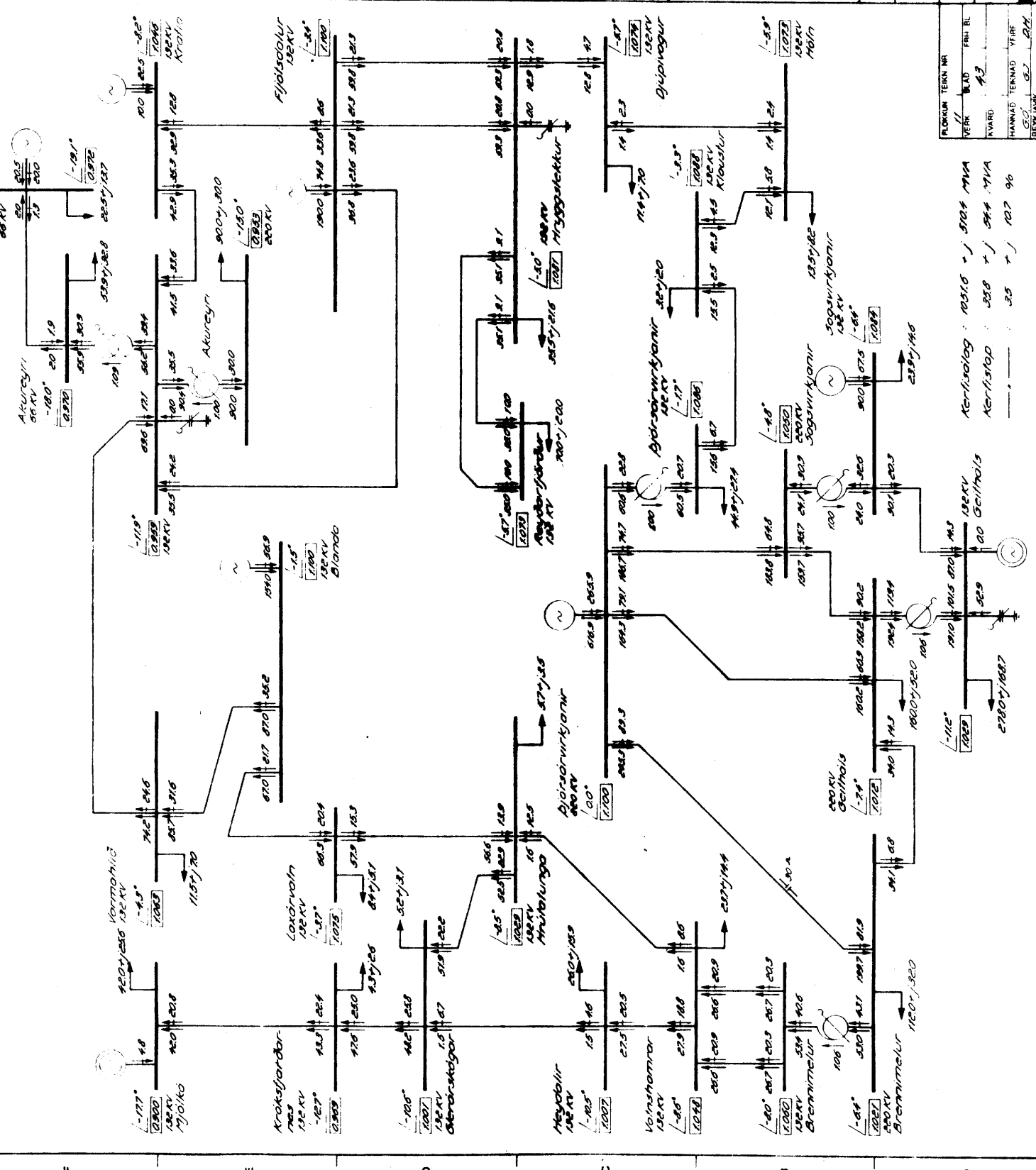
Þellvirkir
Capacitor bank

Þýristorslyr þellvirkir
Static var-system

Seríubellir
Series compensation

Álag / MW og MVAR
Load in MW and MVAR

Alhugasemdir
Aratio = 10 MW
Eðlilegt rekstrarskipti



FLÓKUR	TEKNI	NR
VERK	BLAÐ	FAH BL
ÁVAÐ	ÁR	
FRANNAÐ	TEKNAÐ	VEFIR
REKJANNAK	GR	24
		6. ÁR

Kerfiálag : 1031.6 + j 510.4 MVA
Kerfiálag : 32.8 + j 54.4 MVA

VERK	BLAÐ	FAH BL
ÁVAÐ	ÁR	
FRANNAÐ	TEKNAÐ	VEFIR
REKJANNAK	GR	24
		6. ÁR

ANNAL OF SIA 6833

Rafhönnun

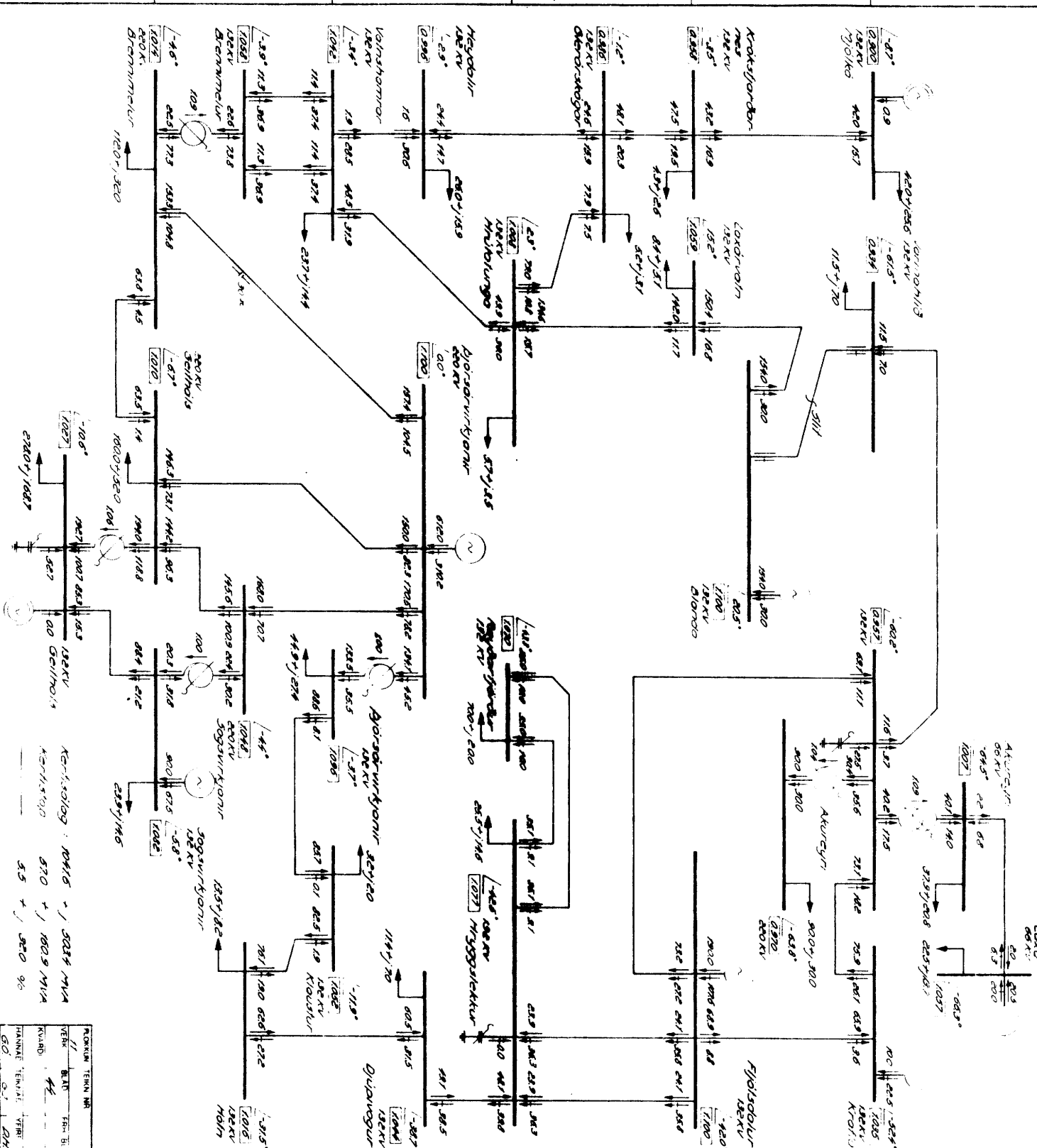
VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 02 **ÁR** : 1992

Expansion alternative : 152 **Ár** : 1992

NY STÖRÐJÓLA : 152 **Ár** : 1992

New power intensive industry : **Þverfellingur** 20 MW



Skýringar og fótmyndir
 422/2000 kVA

Rotorfyrirvarðing
 Reactive Power Generation

Stærðing
 Reactive Power Generation

Rundstillað
 Active Power Flow in MW

Reactive Power Flow in MVA

Spennu
 Transformer

Autostjórnun
 Auto-transformer

Autostjórnun
 Tap changing under load

Reiðun
 Capacitor bank

Þyrskotun
 Static var system

Þerubellir
 Series compensation

Autostjórnun
 Auto-transformer

Autostjórnun
 Tap changing under load

Reiðun
 Capacitor bank

Þyrskotun
 Static var system

Þerubellir
 Series compensation

Autostjórnun
 Auto-transformer

Autostjórnun
 Tap changing under load

Reiðun
 Capacitor bank

Þyrskotun
 Static var system

FORSLAN	TEKNI	NR.	TEKNI	NR.
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
21	21	21	21	21
22	22	22	22	22
23	23	23	23	23
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31	31	31	31	31
32	32	32	32	32
33	33	33	33	33
34	34	34	34	34
35	35	35	35	35
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39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
44	44	44	44	44
45	45	45	45	45
46	46	46	46	46
47	47	47	47	47
48	48	48	48	48
49	49	49	49	49
50	50	50	50	50
51	51	51	51	51
52	52	52	52	52
53	53	53	53	53
54	54	54	54	54
55	55	55	55	55
56	56	56	56	56
57	57	57	57	57
58	58	58	58	58
59	59	59	59	59
60	60	60	60	60
61	61	61	61	61
62	62	62	62	62
63	63	63	63	63
64	64	64	64	64
65	65	65	65	65
66	66	66	66	66
67	67	67	67	67
68	68	68	68	68
69	69	69	69	69
70	70	70	70	70
71	71	71	71	71
72	72	72	72	72
73	73	73	73	73
74	74	74	74	74
75	75	75	75	75
76	76	76	76	76
77	77	77	77	77
78	78	78	78	78
79	79	79	79	79
80	80	80	80	80
81	81	81	81	81
82	82	82	82	82
83	83	83	83	83
84	84	84	84	84
85	85	85	85	85
86	86	86	86	86
87	87	87	87	87
88	88	88	88	88
89	89	89	89	89
90	90	90	90	90
91	91	91	91	91
92	92	92	92	92
93	93	93	93	93
94	94	94	94	94
95	95	95	95	95
96	96	96	96	96
97	97	97	97	97
98	98	98	98	98
99	99	99	99	99
100	100	100	100	100

VIKJUNARLEIÐIR TIL ALDAMOTA

Hydro power expansion alternatives
 Expansion alternatives: 02
 AR: 1992
 NY STORDUA 152
 New power intensive industry
 Reykjaförður 30 MW
 Seyðisfjörður 30 MW
 Djúpalundur 30 MW

Styringagætt e. Lokkavætti
4597024

Raforkutrom/ciðisla
Electric Power Generation

Lagnalís/rom/ciðisla
Reactive Power Generation

Spenna, pu
Voltage in pu

Hvur spennunissis, gradur
Voltage angle in degrees

Rounalísfið, MW
Active power flow in MW

Lagnalísfið, MVAR
Reactive power flow in MVAR

Einvalsspennir
Autotransformer

Spennir
Transformer

Spennuhvítill, pu
Tap setting in pu

Alagubrepaskapillir
Tap changing under load

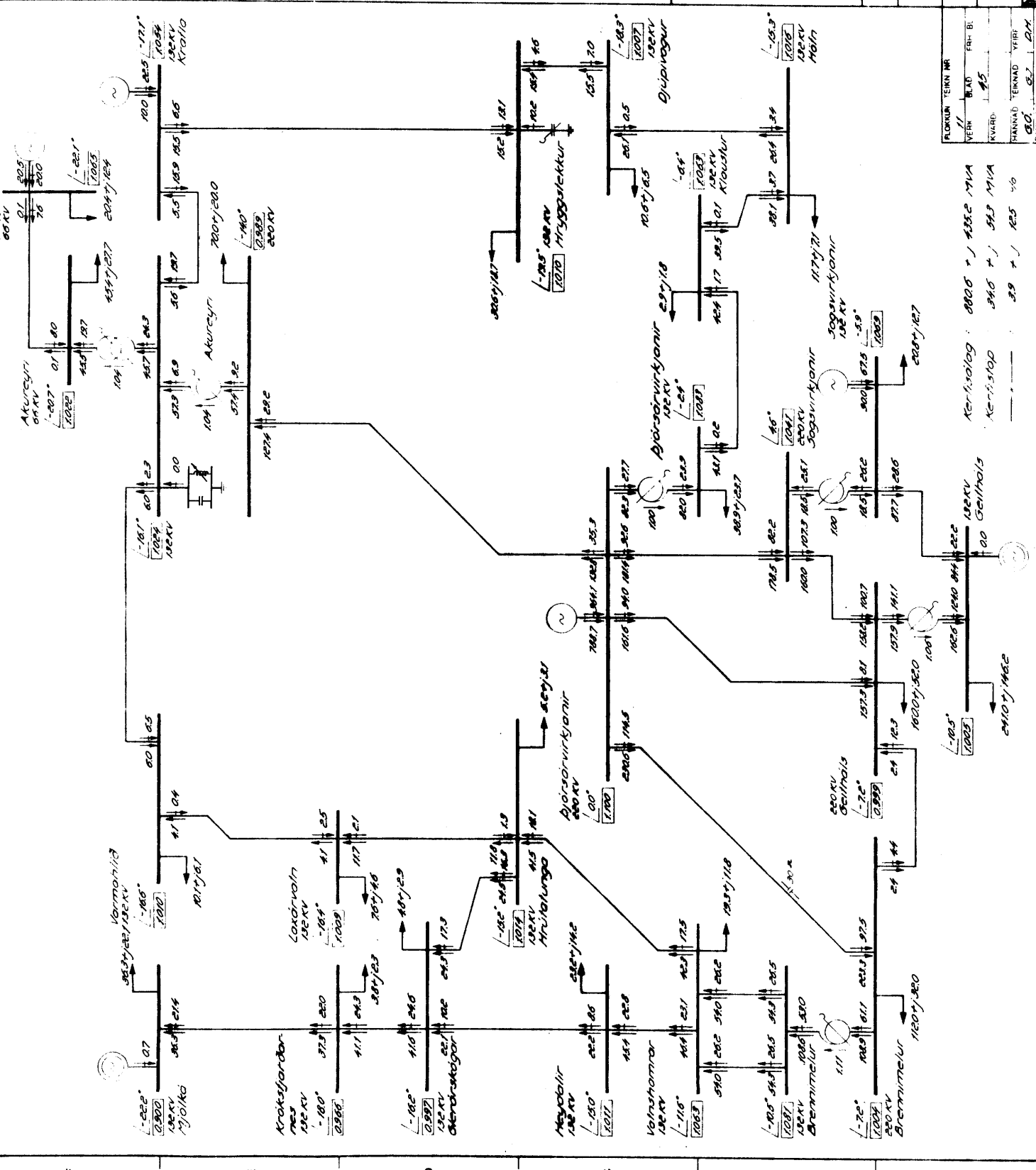
Þellavirki
Capacitor bank

Thyrstorslyrt þellavirki
Static Var-System

Seriesbellir
Series compensation

Alag, MW og MVAR
Load in MW and MVAR

Almugusemdir
Krafa = 10 MW
Edlilegt rektarhlástand



FLÖKUN	TEKNI NR	
VERK	BEIÐ	FRH. BI.
KVLEIÐ	15	
HANNAÐ	TEKNAÐ	VEFIR
RETNÁVIK	07	04
des. 01		

Ker. hláslag:	880.6	+ j	435.2	191.4
Ker. hláslag:	846.8	+ j	545.5	191.4
	3.9	+ j	125	%

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro-power expansion alternatives

VIRKJUNARLEIÐ: 03
AR: 1989

Expansion alternative: 152
Eyjaförður 20 MW
Brennisteinur 20 MW

New power intensive industry: Brennisteinur 20 MW

ÁKURNGR & LEBEYRI
SYSTEM

Rotorkraftmagneti
Electric Power Generation

Lounglunngandi
Reactive Power Generation

Spennu í DV
Voltage in DV

Horn spennu er í gæm
Voltage angle in degrees

Reurollstærð í MW
Active power flow in MW

Lounglunngandi í MW
Reactive power flow in MW

Spennu
Autotransformer

Spennu
Transformer

Spennu
Tap setting in DV

Ágæðastöðill
Tap changing under load

Reiðark
Capacitor bank

Þyrsturáttir Reiðark
Static Var System

Seiðubellur
Series compensation

Áhruga-smáttir
Load in MW and MVA

R/0 gflr á öllu
Load

Vesturland 119 MW
Vestfirðir 70 MW
Þryggisstættur 100 MW
Höfn 89 MW
Díflí: Akureyri 85 MW
Vestfirðir 80 MW

VIRKUNARLEIÐ TIL ALDAMOTA

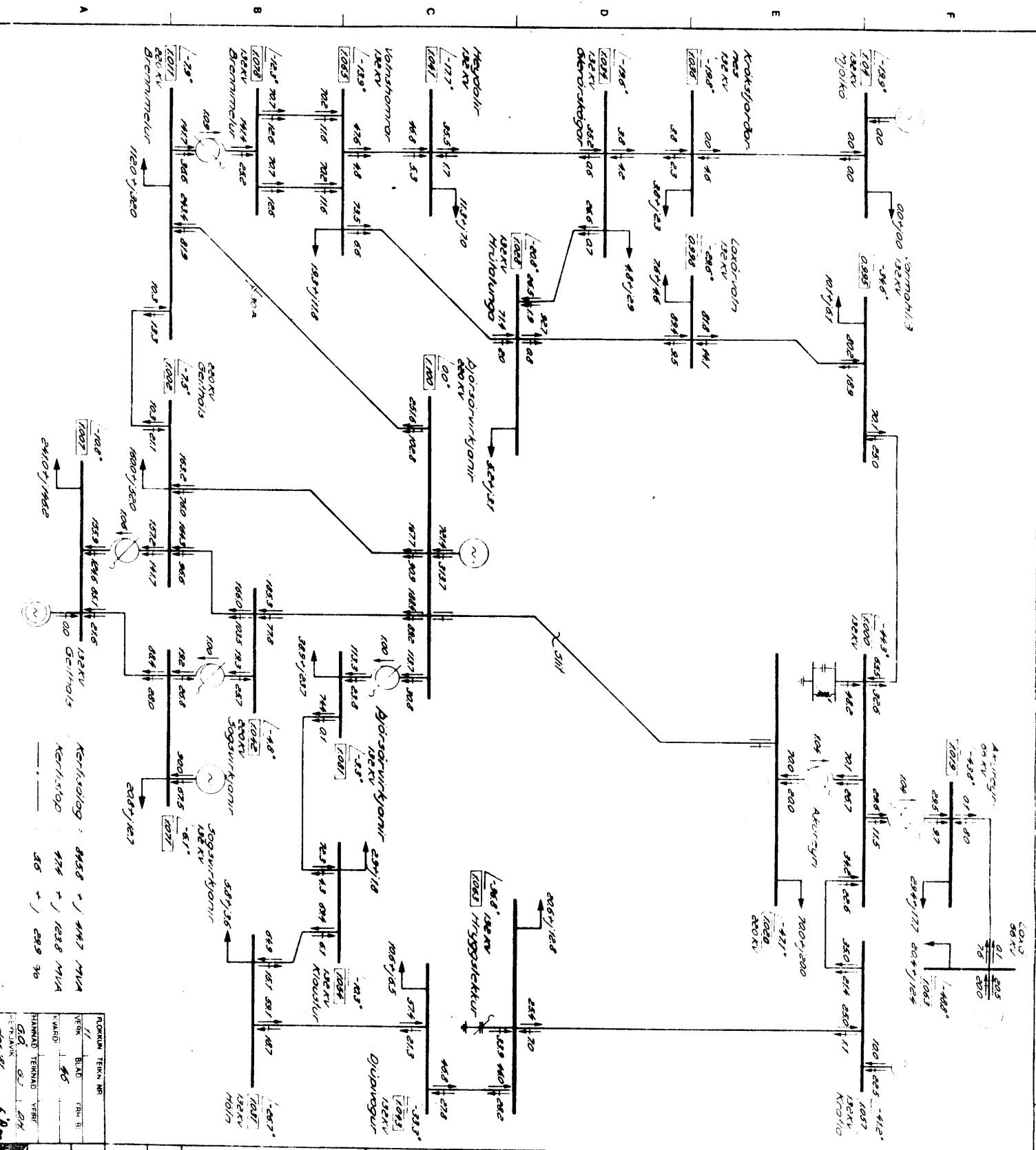
Hydr. power expansion alternatives

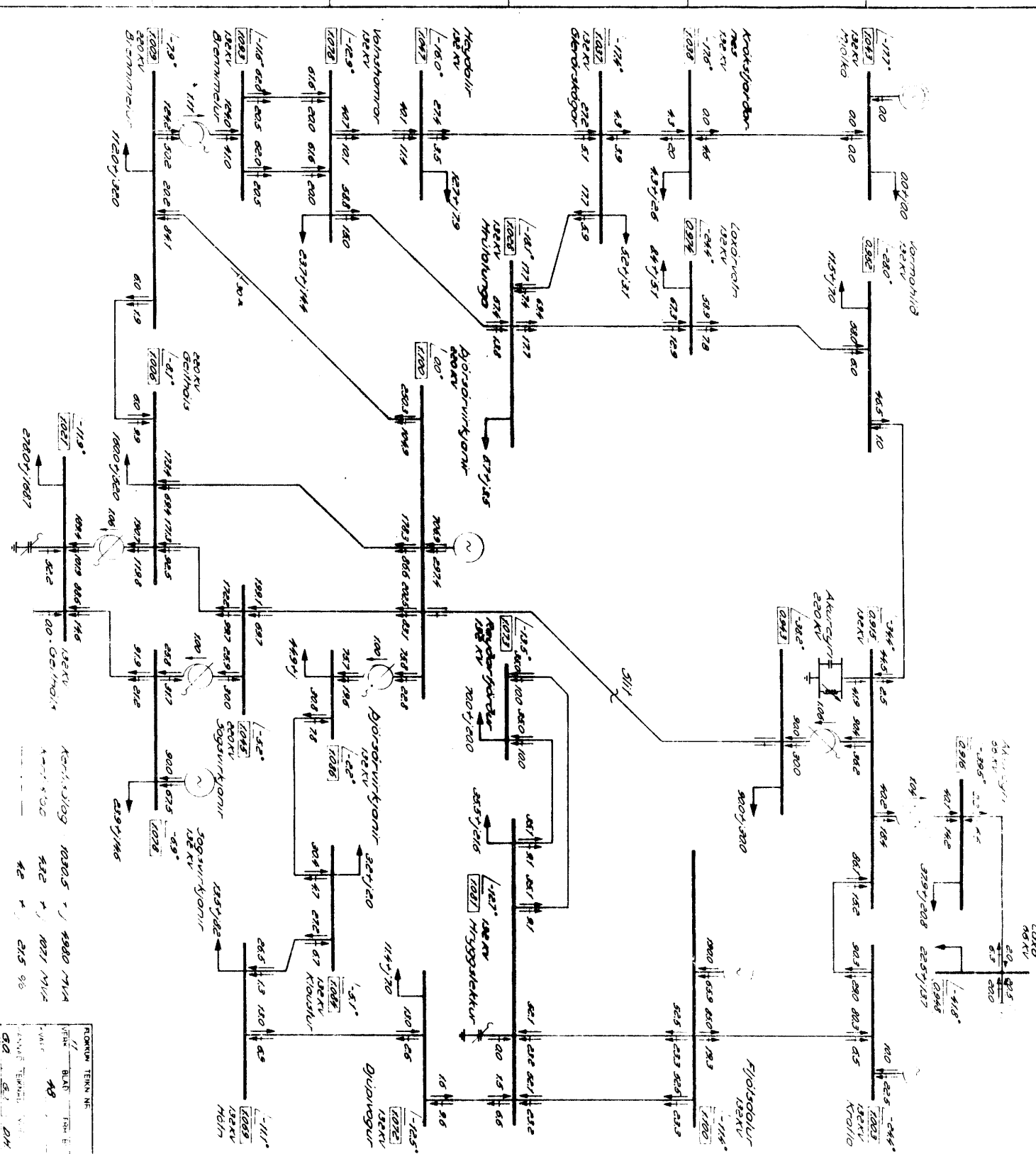
VIRKUNARLEIÐ : 03
Expansion alternative : 03

NY STÖRÐIA 132 Eignarstærðir 70 MW
New power intensive industry : 132 Eignarstærðir 70 MW

Rafhönnun

ROKINN	TEKNI	NR
VERK	BLD	NR
ÁVAÐ	ÁR	NR
STÍMULD	TEKNI	NR
GD	ÁR	NR





<p>Virvoimien ja laitteiden kuvasto</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Laajennusvoimien toiminta Expansion Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>	<p>Reaktorin toiminta Electric Power Generation</p>
A	B	C	D	E	F	G	H	I	J	K	L	M	N

Stærklingi á Krafkvaði
Sýna

Röðulífræðingur
Electric Power Generation

Launaflokkur
Reactive Power Generation

Spenna í þu
Voltage in pu

Form spennuvissis í þu
Voltage angle in degrees

Röðulífræðingur
Active power flow in MW

Launaflokkur
Reactive power flow in MVAR

Einvalsspennur
Autotransformer

Spennur
Transformer

Spennuvissur
Tap setting in pu

Ágættarþingillur
Tap changing under load

Þögnun
Capacitor bank

Þögnun
Stable for system

Seriesbellur
Series compensation

Álag, MW og MVAR
Load in MW and MVAR

Alhögsemdir
Krafta = 10 MW
Línur Akureyri-Krafli stílin



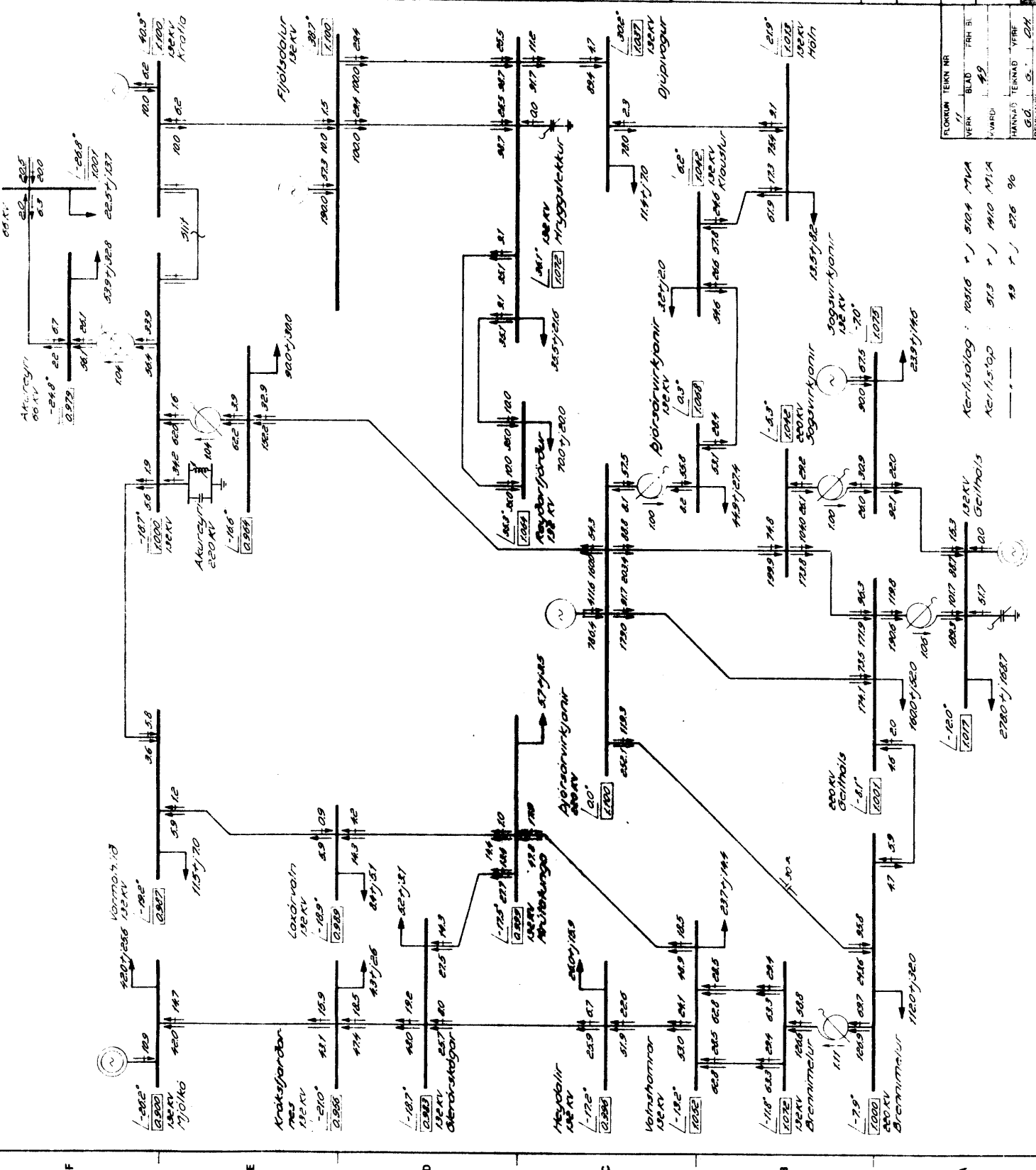
VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 03
Expansion alternative : 03

NY STÖRÐJA : 152
New power intensive industry : 152

AR : 1992
Year : 1992

Rafhönnun
ANNALI 42 SINI 243.3

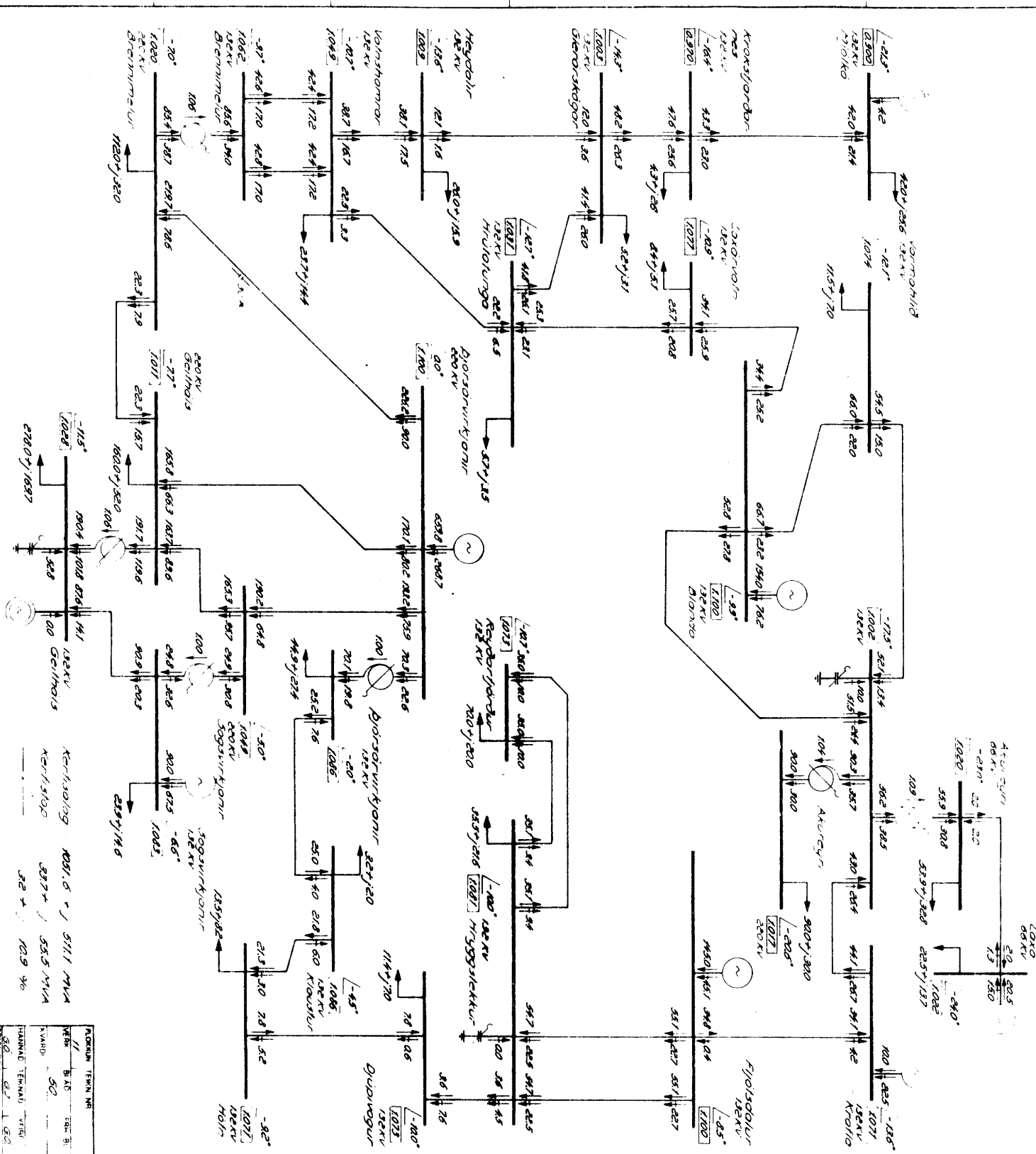


FLOKKUR	TEKNI	NR
VERK	BLAÐ	FRH 51
SUMRÍÐ		49
HANNAÐ	TEKNAÐ	VFRI
REKJAFRÍ	Ö	ÖH
	Ö	ÖH

VERK	BLAÐ	FRH 51	TEKNI	NR
VERK	BLAÐ	FRH 51	TEKNI	NR

VERK	BLAÐ	FRH 51	TEKNI	NR
VERK	BLAÐ	FRH 51	TEKNI	NR

ANNALI 42 SINI 243.3



<p>Stærvingar og löktafni Sýsla</p>	<p>Raforkunarmæðsla Electric Power Generation</p>	<p>Loðnalyfning Reactive Power Generation</p>	<p>Spenna : 6U 10/109C in pu</p>	<p>Þetta spennuvarnargráðm Voltage angle in degrees</p>	<p>Rögnmæling : MW Active power flow in MW</p>	<p>Loðnflæði : MW Reactive power flow in MW</p>	<p>Enniflokkun Autotransformer</p>	<p>Spennu Transformer</p>	<p>Spennu o spennu Top setting in pu</p>	<p>Ágripstakill Tap changing under 1000</p>	<p>Þellavirk Capacitor bank</p>	<p>Þyrmslagir þellavirk Static var system</p>	<p>Þerubellir Series compensation</p>	<p>Ágrip : MW og MVAR Load in MW and MVAR</p>	<p>Áhrögumæli Krafta - 10 MW Edlileg ristilvörðing</p>	<p>Virkiunarleiddir til Aldamóta Hydro-power expansion alternative</p>	<p>Virkiunarleidd : 04 AR : 1992</p>	<p>Virkiunarleidd : 152 New power intensive industry : Binnmæliur 70 MW</p>	<p>Rafönnun Rafstöðir : 70 MW Rafstöðir : 90 MW Binnmæliur : 70 MW</p>
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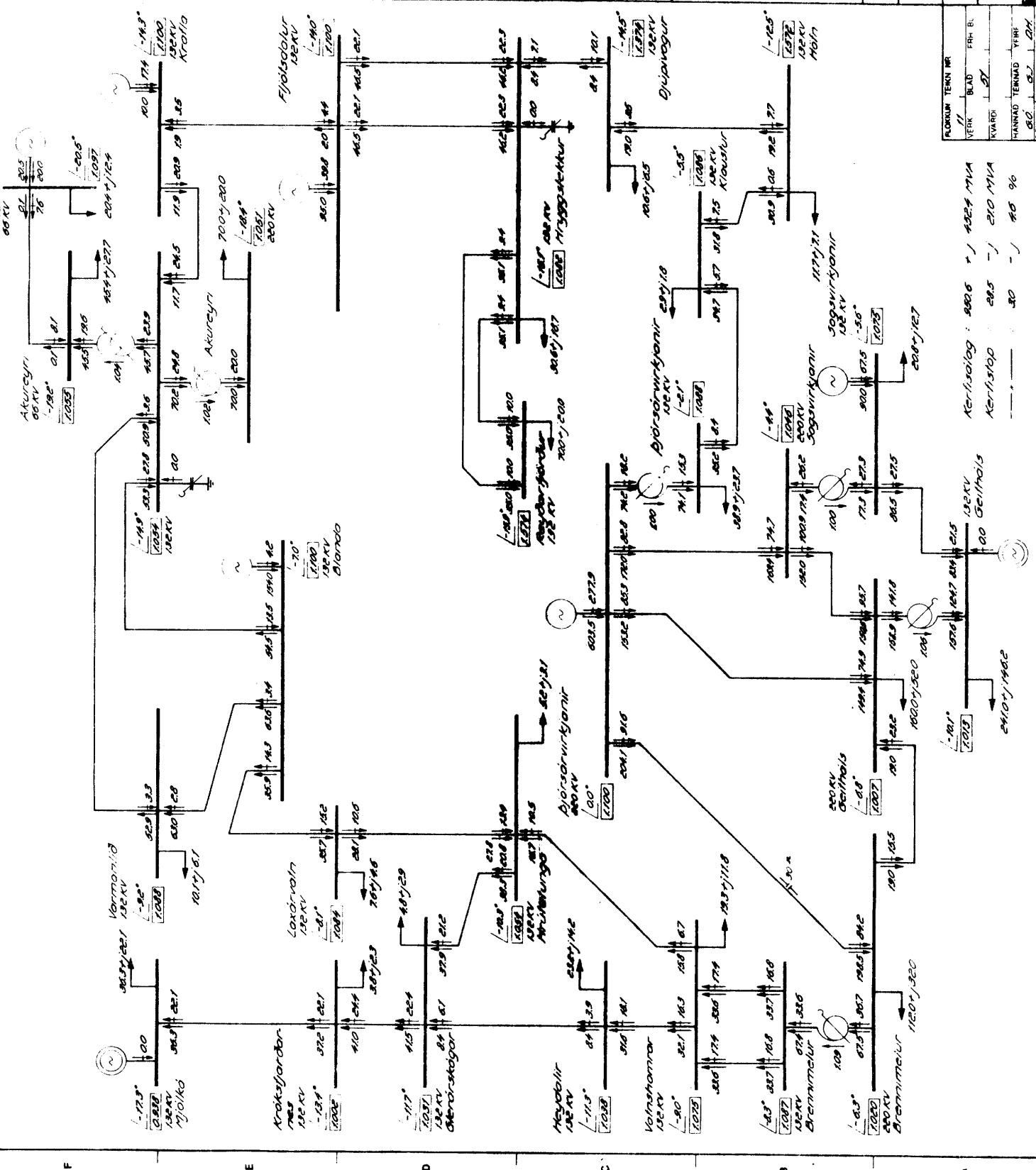
Skýringar e. skilgreiningar
Legend

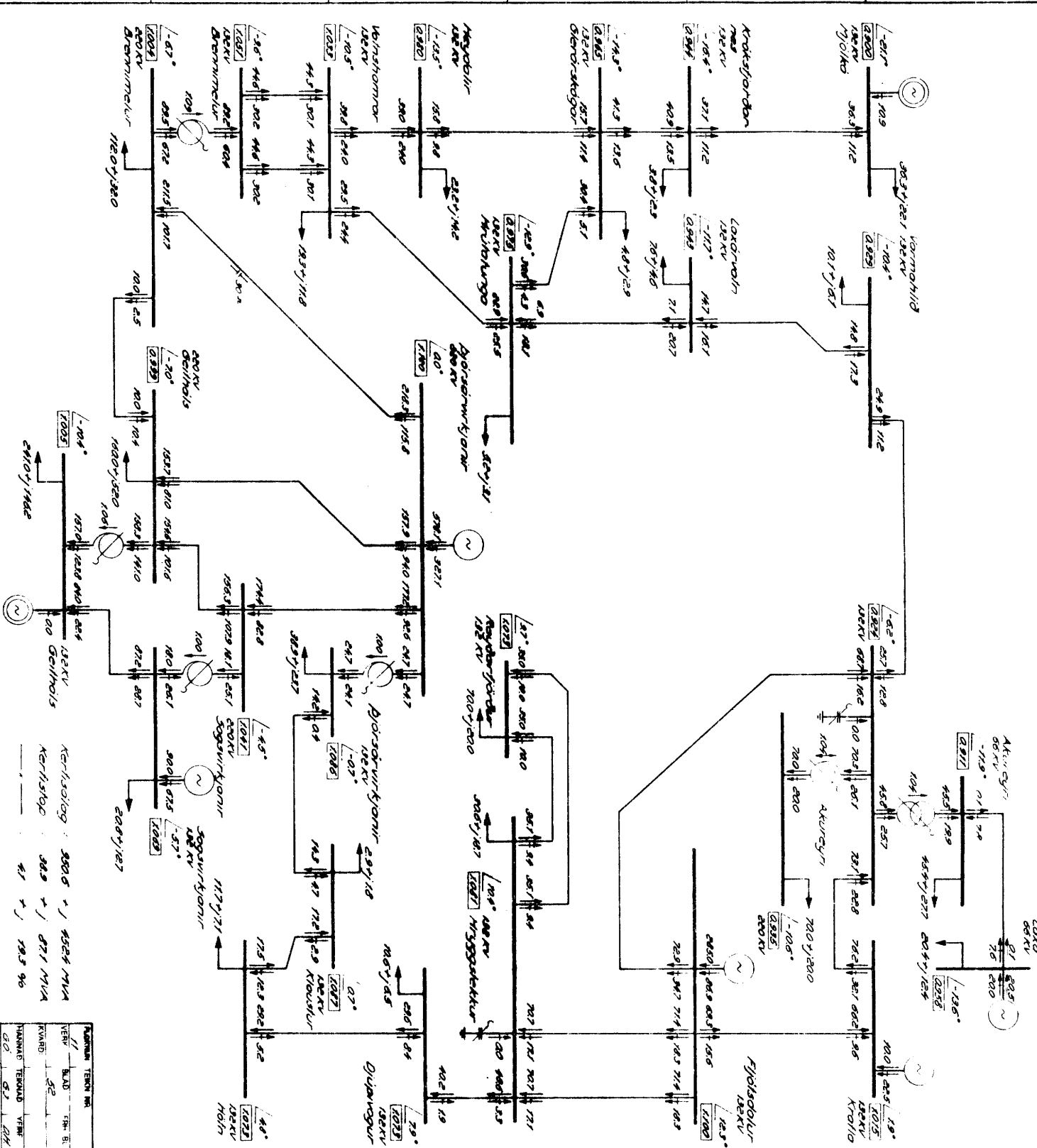
- Rotorkraftaflerðisla
Electric Power Generator
- Loaunafloaflerðisla
Reactive Power Generation
- Spenna í pu
Voltage in pu
- Horn spennuvissis í gráðum
Voltage angle in degrees
- Roumlaustaði í MW
Active power flow in MW
- Loaunafloaflerð í MVAR
Reactive power flow in MVAR
- Einvaltsþönnur
Autotransformer
- Spennuröðull í pu
Tap setting in pu
- Álagsþreppskjálur
Tap changing under-load
- Þelluvirki
Capacitor bank
- Þyrskostjórnt þelluvirki
Stable var-system
- Seríubellur
Series compensation
- Álag í MW og MVAR
Load in MW and MVAR

Almúgasetmdir
Kraflo = 10 MW
Eðlilegt rekstrarskipti

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro-power expansion alternatives

VIRKJUNARLEIÐ:	01	AR:	1989
Expansion alternative:		Year:	
NY STÖRÐJUA	153	Reykjafjarður	20 MW
New power intensive industry:		Reykjafjarður	20 MW
		Þerrmúttelur	20 MW





Skýringar á teikningu
Legend

Rotorkerfi/Generator
Electric Power Generation

Laufhliðsmóttölu
Reactive Power Generation

Spenna / p.u.
Voltage in p.u.

Þorn spennuvissur / Maximum
Voltage angle in degrees

Roundflettur / MW
Active power flow in MW

Laufhliðsmóttölu / MVA
Reactive power flow in MVA

Einvaldisspennur
Autotransformer

Spennur
Transformer

0. Tap setting in p.u.
Spennuhlutföll / Tap
setting in p.u.

Alögðskapabankur
Tap changing under 1000

Deiluvorki
Capacitor bank

Þrýstingur / Transformer
Series capacitor

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

Alögðskapabankur
Tap changing under 1000

VRKJUNARLEIÐ TIL ALDAMOTA
Hydro - power separation alternative

VRKJUNARLEIÐ : 02 AR : 1989

NY STORMDUA : 153 Reyðarfjörður 20 MW
New power intensive industry : Þingvallvatn 20 MW

Rafkönnun

Þýðingar á listanum
153212

Raforkuframleiðsla
Electric Power Generation

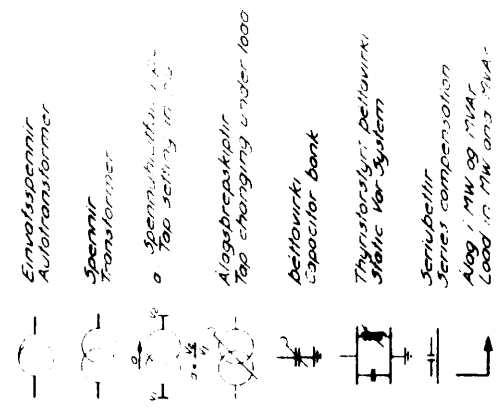
Lögnisframlæðsla
Reactive Power Generation

Spanna / pu
Voltage in pu

Magn spennuviss / gradum
Voltage angle in degrees

Rögnflæði / MW
Active power flow in MW

Lögnflæði / MVAR
Reactive power flow in MVAR

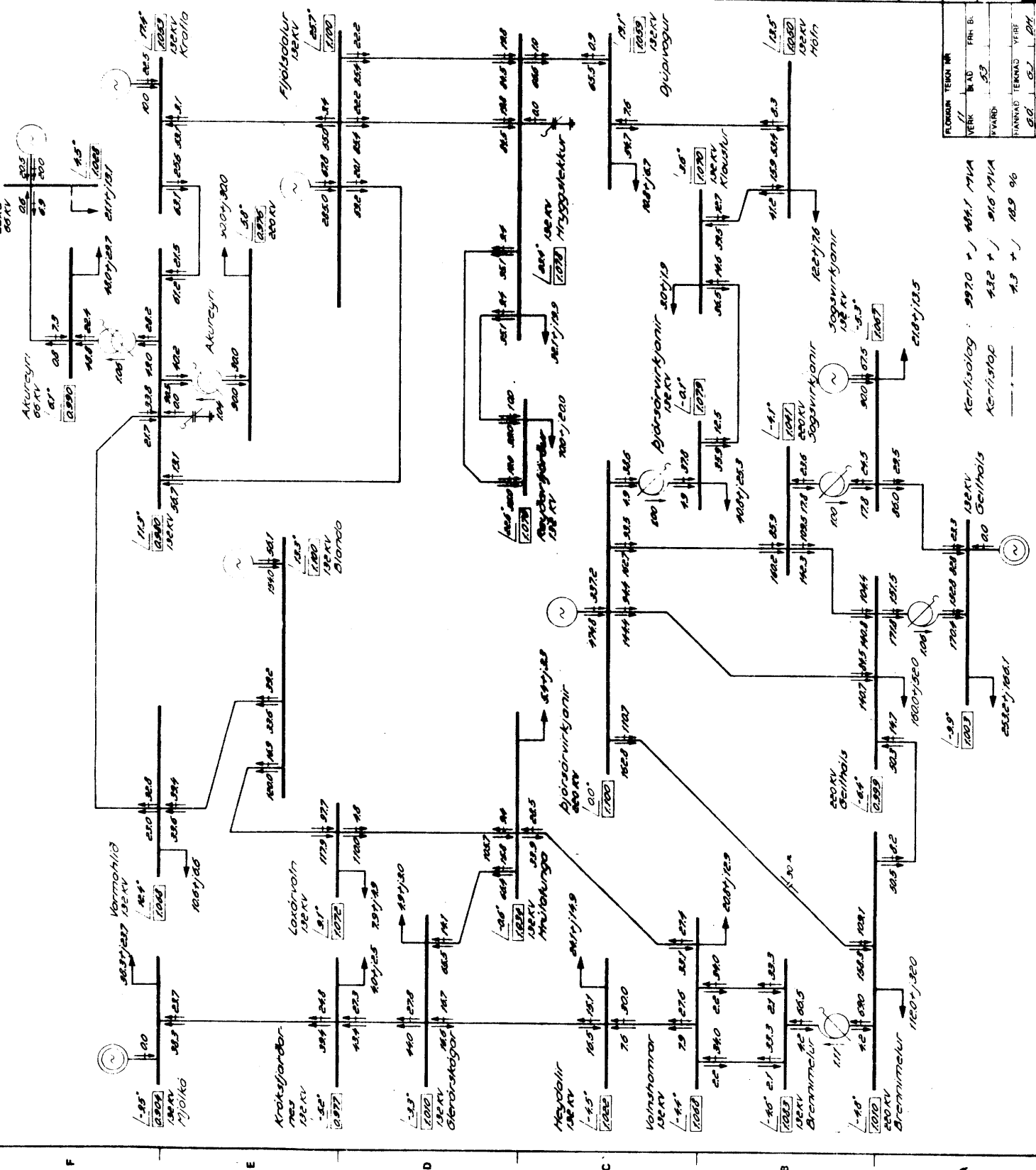


Allgöngumör
Kraftlo = 10 MW
Eðlilegt rekstrarstand

VIRKJUNARLEIÐ TIL ALDAMÖTA

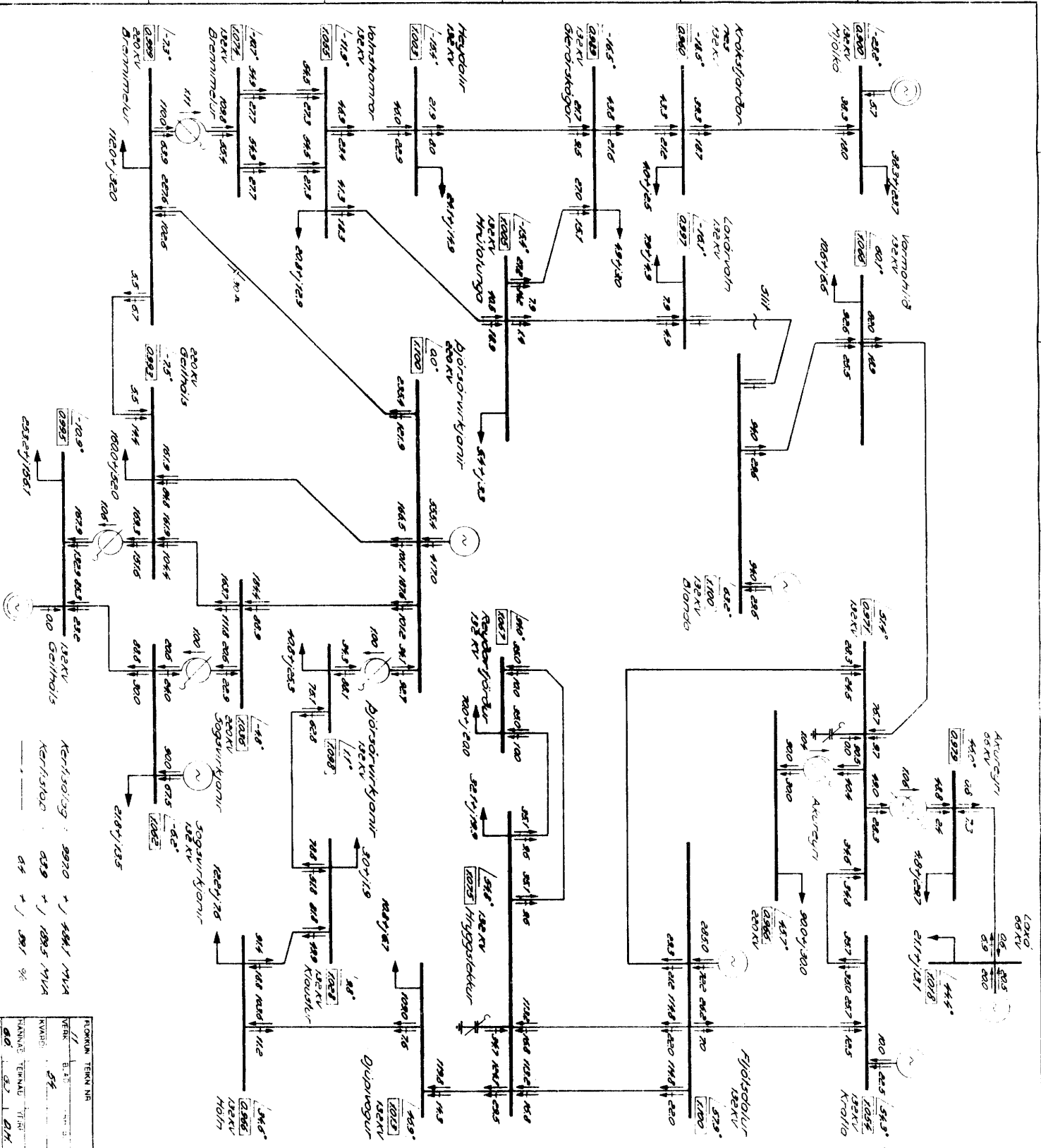
Hydro - power expansion alternatives

VIRKJUNARLEIÐ	02	AR	1990
Expansion alternative			
NÝ STÖRÐJAJA	153	Reykjaförður	30 MW
		Eyðjaförður	30 MW
		Örnarnitur	30 MW



FLÖKKUR TERNUM			
VERK	BLAD	FRIÐ. BL.	
17	53	53	
17	53	53	
17	53	53	
17	53	53	
17	53	53	

Kerfisvirkni : 99,70 + / 99,1 MVA
 Kerfisvirkni : 432 + / 916 MVA
 ... : 4,9 + / 18,9 %

















Kerförlängning: 2970 * 1/2 1/2 1/2
 Kerförlängning: 2970 * 1/2 1/2 1/2
 Kerförlängning: 2970 * 1/2 1/2 1/2

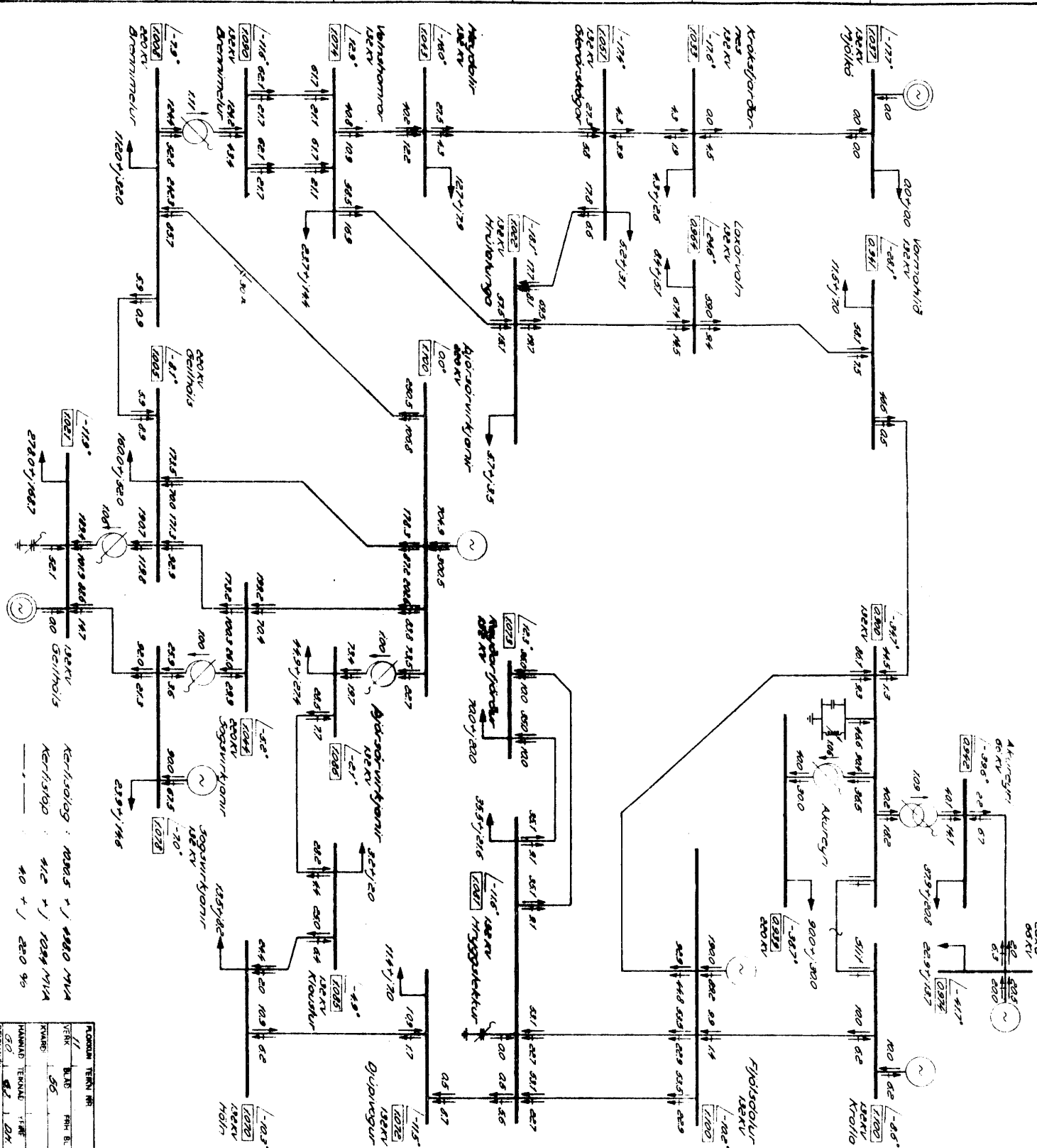
FLÖDE	TEKNIK NR
AVVÄR	58
AVVÄR	58
AVVÄR	58
AVVÄR	58

<p>Styrdagor 2 lekta Elektrisk Power Generation</p>	<p>Round-shoulder Electric Power Generation</p>	<p>Spänn 1 PU Voltage in PU</p>	<p>Round-shoulder Active power flow in MW Reactive power flow in MVAR</p>	<p>Spänn Transformer</p>	<p>Spänn Tap setting in PU</p>	<p>Alloggs-gastkålar Tap changing under load</p>	<p>deltvarki capacitor bank</p>	<p>Thyristorstyrt deltvarki static var system</p>	<p>Serubedell Series compensation</p>	<p>Almgösesemlar Load in MW and MVAR</p>	<p>Kraftlo = 10 MW Linn Länkstyr - Blanda sllitt all Bländ skarf um 60 MW</p>	<p>VIRKUNARLEIÐ TIL ALDMOTA Hydro-power expansion alternatives</p>	<p>VIRKUNARLEIÐ : 02 AR : 1990</p>	<p>NY STORIDJA : 133 Regulator New power intensive industry : Exciters New power intensive industry : Exciters</p>	<p>Rafömmun</p>
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SKILLINGAR & TEIKNINGAR

LAGEND

-  Raforkuframleiðsla
Electric Power Generation
-  Lagnaflostmengið
Reactive Power Generation
-  Spanna / DV
Voltage in DV
-  Högnun
Angle in degrees
-  Rannsóttflóði
Active power flow in MW
-  Lagnsóttflóði
Reactive power flow in MVAR
-  Einvaldastöð
Autotransformer
-  Spennu-
Transformer
-  0, 1/2, 1
0, Tap setting in DV
-  Aðalskipulag
Tap changing under load
-  Þryggingar
Capacitor bank
-  Þryggingar
SVC for System
-  Sérubætur
Series compensation
-  Aðal-
Load in MW and MVA



Kerfljóðing: 1000.5 * 1000 MW
Kerfljóðing: 41.2 * 1000 MW
40 + 1 250 90

FORMAN	TEIKN	NÚM.	FRH. BL.
VI	BUS	03	
FRANS		05	
FRANS		06	
FRANS		07	
FRANS		08	
FRANS		09	
FRANS		10	

VIKJUNARLEIÐIR TIL ALDAMOTA
Hydro - power expansion alternative

VIKJUNARLEIÐ: 03 **AR**: 1992

NY STORIDJA 153 Raforkuferðan 70MW
New power intensive industry: Raforkuferðan 90MW
Raforkuferðan 70MW

Styringur e fækkun
control

- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation
- ~ AC Power Generation

- Einvalsspennir
Autotransformer
- Spennir
Transformer
- Spennuflutun
Tap setting in pu
- A 330kV
Tap changing under 1000
- Belvirkir
- capacitor bank
- Thyrstörslu
Static var-system
- Serubellir
Series compensation
- 100, MW og MVA
Load in MW and MVA

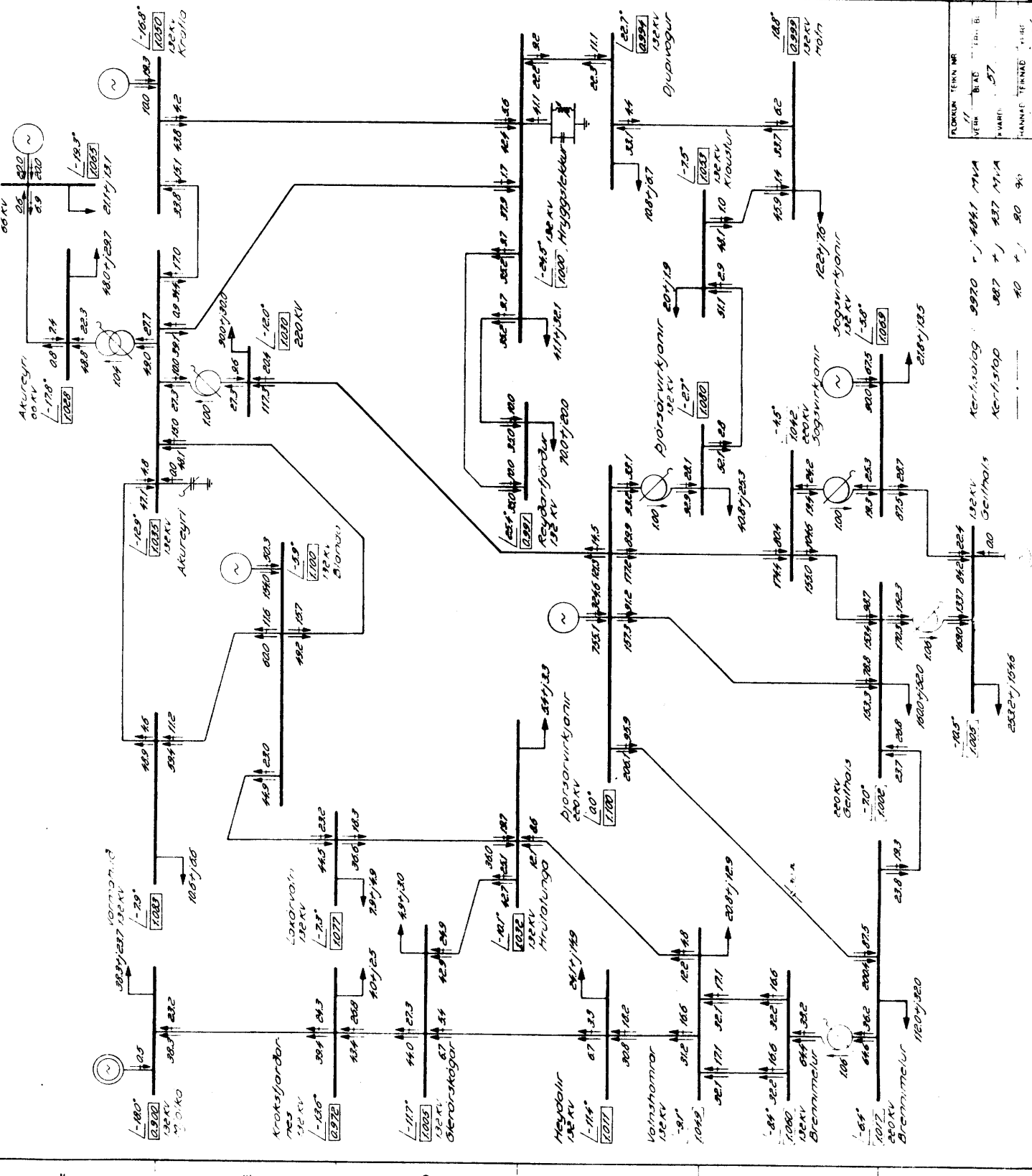
Afhugasemdir
Krafta = 10 MW
Eðlilegt rekstrarstöð
Normal operating



VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐIR	04	AR	1990
Expansion alternative		Year	
NY STORIDA	153	Reykjorkjörur	70 MW
New power intensive industry		Eyjörður	90 MW
		Blámann	70 MW

Raffönnun
Annual Report 1988



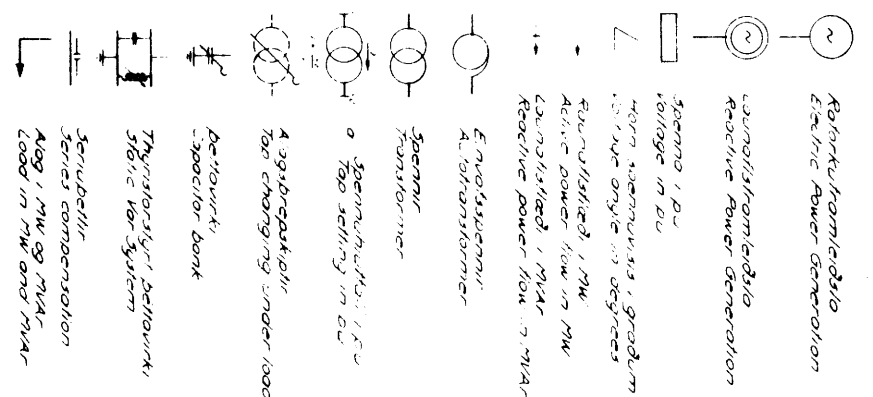
FORMAN TERN NR	100
TEKNI	100
SKRIFA	57
HANNA TERN NR	100
TEKNI	100
SKRIFA	57

Krafta	9970	MVA
Krafta	987	MVA
Krafta	90	MVA

Krafta	9970	MVA
Krafta	987	MVA
Krafta	90	MVA

Krafta	9970	MVA
Krafta	987	MVA
Krafta	90	MVA

SKYRNINGAR OG TOLKUNUM
LEGENDA

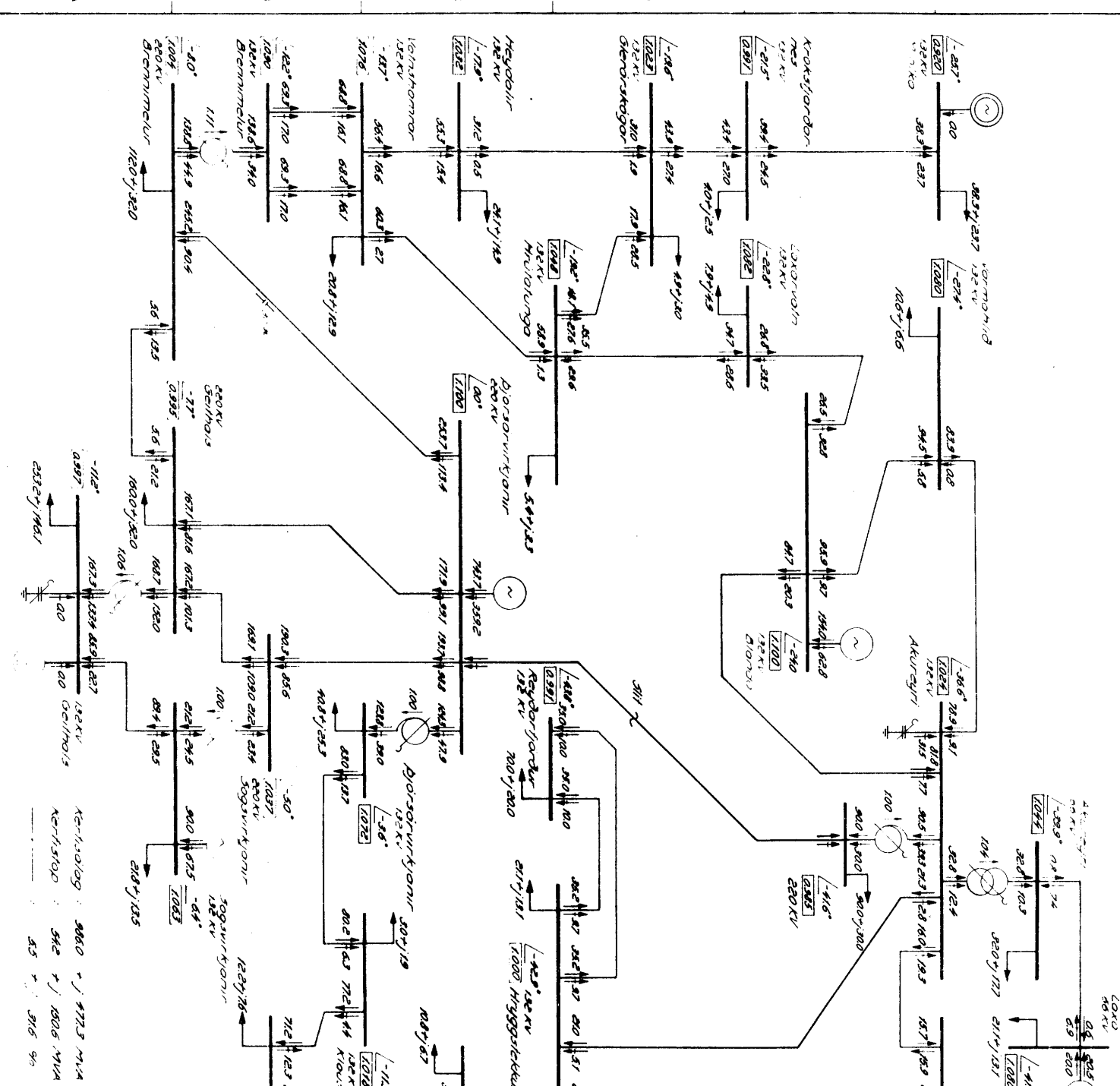


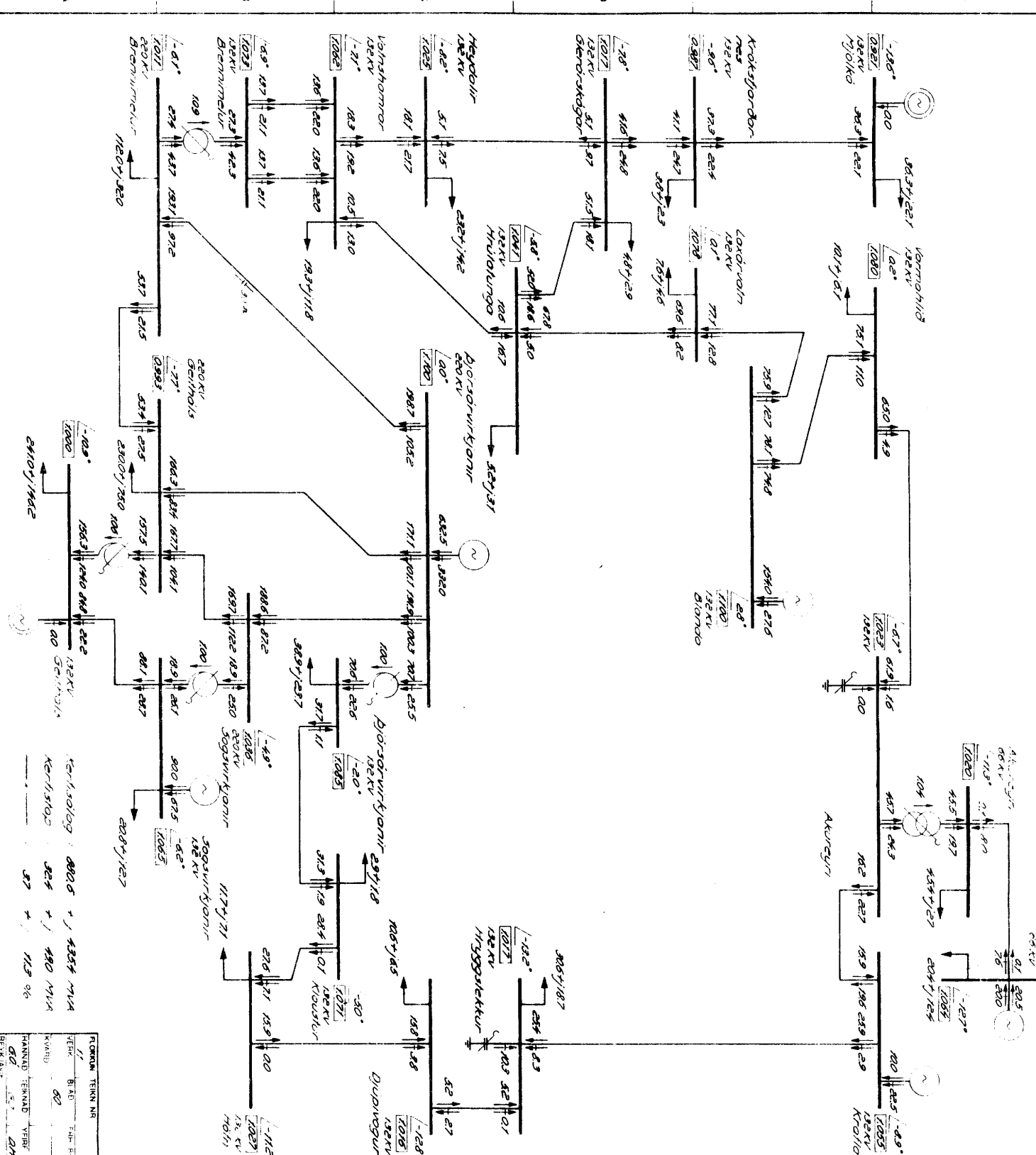
Virki- og varmafræðingur
Kerfi - 0 MW
Línur - 10 MW
Dæll: Akureyrri, 0 MW
Hvítárvágar, 0 MW
Río gfr. á öllu
Hvítárvágar - 0 MW

Virki- og varmafræðingur
Kerfi - 0 MW
Línur - 10 MW
Dæll: Akureyrri, 0 MW
Hvítárvágar, 0 MW
Río gfr. á öllu
Hvítárvágar - 0 MW

Virki- og varmafræðingur
Kerfi - 0 MW
Línur - 10 MW
Dæll: Akureyrri, 0 MW
Hvítárvágar, 0 MW
Río gfr. á öllu
Hvítárvágar - 0 MW

FRÖSKUR TÆKNA NR.	11
VER	58
KVAÐ	58
FRANNAÐ TÆKNA NR.	58
FRÖSKUR TÆKNA NR.	58





KOKKUFJÖRÐUR : 8800 W / 43854 MVA
 HREITHÓLMUR : 824 W / 480 MVA
 STROKKUR : 37 W / 11.9 %

FORÖGN TERN NR	
VIRKUN	B: AR
VERK	80
MANNVIRKUN TERNVIRK	
VERK	80
VERK	80
VERK	80

<p>Stýringar- & löskulur Lagaðar</p>	<p>Raforkum/drifislo Electric Power Generator</p>
<p>Lagnaforn/drifislo Reactive Power Generation</p>	<p>Sagna- / ÞU Voltage in PU</p>
<p>Rannvirkning Active power flow in MW</p>	<p>Launvirkning Reactive power flow in MVar</p>
<p>Sagnvirkning Auto-transformer</p>	<p>Sagnvirkning Transformer</p>
<p>Stærðing Tap changing under load</p>	<p>Launvirkning Capacitor bank</p>
<p>Þynging Series compensation</p>	<p>Launvirkning Load in MW and MVar</p>

AR: 1989

VIRKUNARLEIÐ : 01

VIRKUNARLEIÐIR TIL ALDAMÓTA
Hydro-power expansion alternatives

NY STORDIA
New power intensive industry

Rafvönnun

154 deilnaðir 30 MW

AR: 1989

154 deilnaðir 30 MW

Styring og e. loftslutur
1992

Robarkraftmagn
Electric Power Generation

Loaunastromframlags
Reactive Power Generation

Spenna / V
Voltage in pu

Horn spennuvalis / Grad
Voltage angle in degrees

Roumlastet / MW
Active power flow in MW

Loaunastromframlags
Reactive power flow in MVAR

Einvaltsþannir
Auto-transformer

Spennir
Transformer

Spennuhvolf / pu
Tap setting in pu

Aloystþannir
Tap changing under load

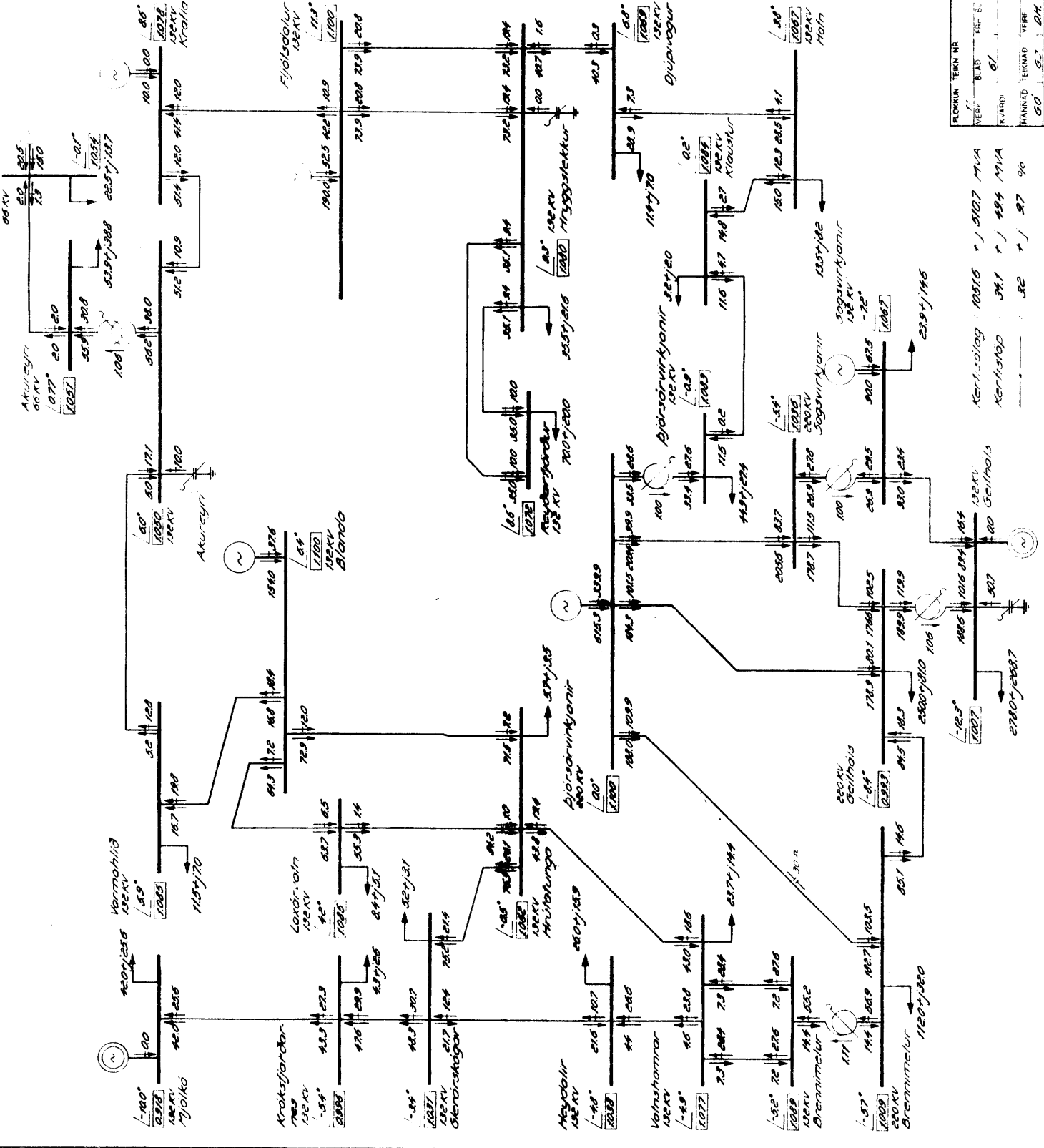
Þellur
Capacitor bank

Þunnsstjóri þellur
Static var system

Serubellir
Series compensation

Alog / MW og MVAR
Load in MW and MVAR

Afhugasemdir
Kraflo 10 MW
Edlilegt rekstrarband



15

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro-power expansion alternatives

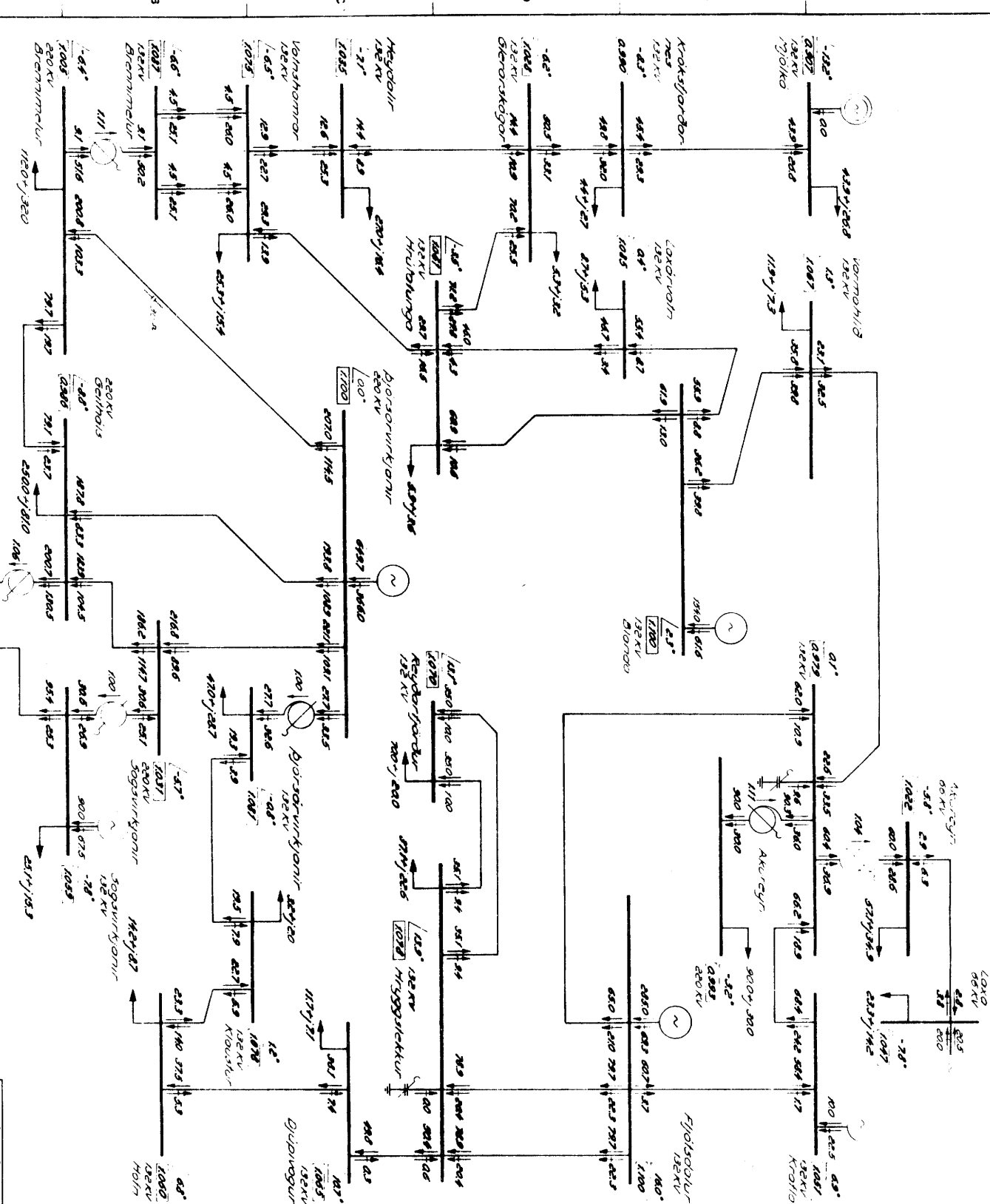
VIRKJUNARLEIÐ	01	AR	1992
Expansion alternative		Year	
NY STÖRÐJAJA	154	Reykjarfjörður 20 MW	
New power intensive industry	261/262	Brennimælur 20 MW	
		261/262	20 MW

FLORINN TEKN NR	
VERK	BLAD
KVARN	81
HANNAÐ	EIRNAD
REYKJAVIK	6.11.92

Kerf. voltag.	10516	+ /	510.7	MVA
Kerfistöð	381	+ /	484	MVA
	32	+ /	87	%

100kV	1016	844	184
132kV	106	106	106
200kV	106	106	106

Rafhönnun
ANMÁL 42 SM 8433



Hydrogen & Oxygen
 Emission

Roloktu hometeida
 Emission Power Generation

Vahjokkajon
 Reactive Power Generation

Saanu 1.00
 Voltage in DV

harm saanen 0.5. Grook
 Voltage onye in dygret

Roundified 1700
 Active power flow in MVA

Roundified 1700
 Reactive power flow in MVA

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Saanu 1.00
 Voltage in DV

harm saanen 0.5. Grook
 Voltage onye in dygret

Roundified 1700
 Active power flow in MVA

Roundified 1700
 Reactive power flow in MVA

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Saanu 1.00
 Voltage in DV

harm saanen 0.5. Grook
 Voltage onye in dygret

Roundified 1700
 Active power flow in MVA

Roundified 1700
 Reactive power flow in MVA

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Saanu 1.00
 Voltage in DV

harm saanen 0.5. Grook
 Voltage onye in dygret

Roundified 1700
 Active power flow in MVA

Roundified 1700
 Reactive power flow in MVA

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Saanu 1.00
 Voltage in DV

harm saanen 0.5. Grook
 Voltage onye in dygret

Roundified 1700
 Active power flow in MVA

Roundified 1700
 Reactive power flow in MVA

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Saanu 1.00
 Voltage in DV

harm saanen 0.5. Grook
 Voltage onye in dygret

Roundified 1700
 Active power flow in MVA

Roundified 1700
 Reactive power flow in MVA

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Saanu 1.00
 Voltage in DV

harm saanen 0.5. Grook
 Voltage onye in dygret

Roundified 1700
 Active power flow in MVA

Roundified 1700
 Reactive power flow in MVA

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

Roundified
 Active power

FORKUM	TERMIN	IN
GE	BEAT	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00
1.00	1.00	1.00

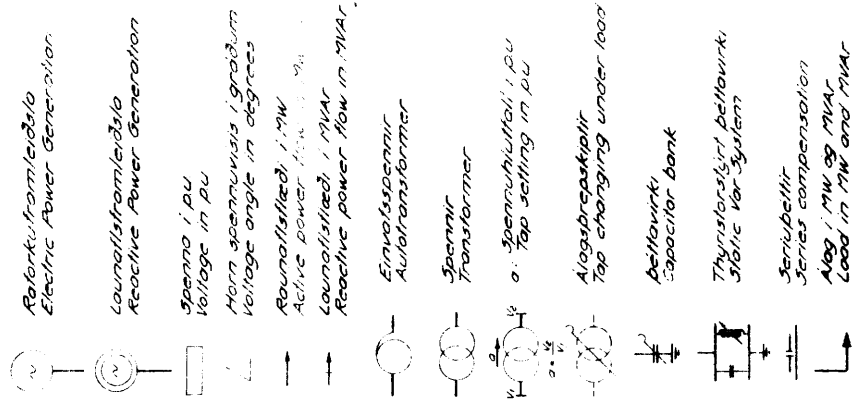
VIRKUNARLEID TIL ALDAMOTIA
 Hydro-power expansion alternatives

Expansio alternative
 01 AR 1993
 Year

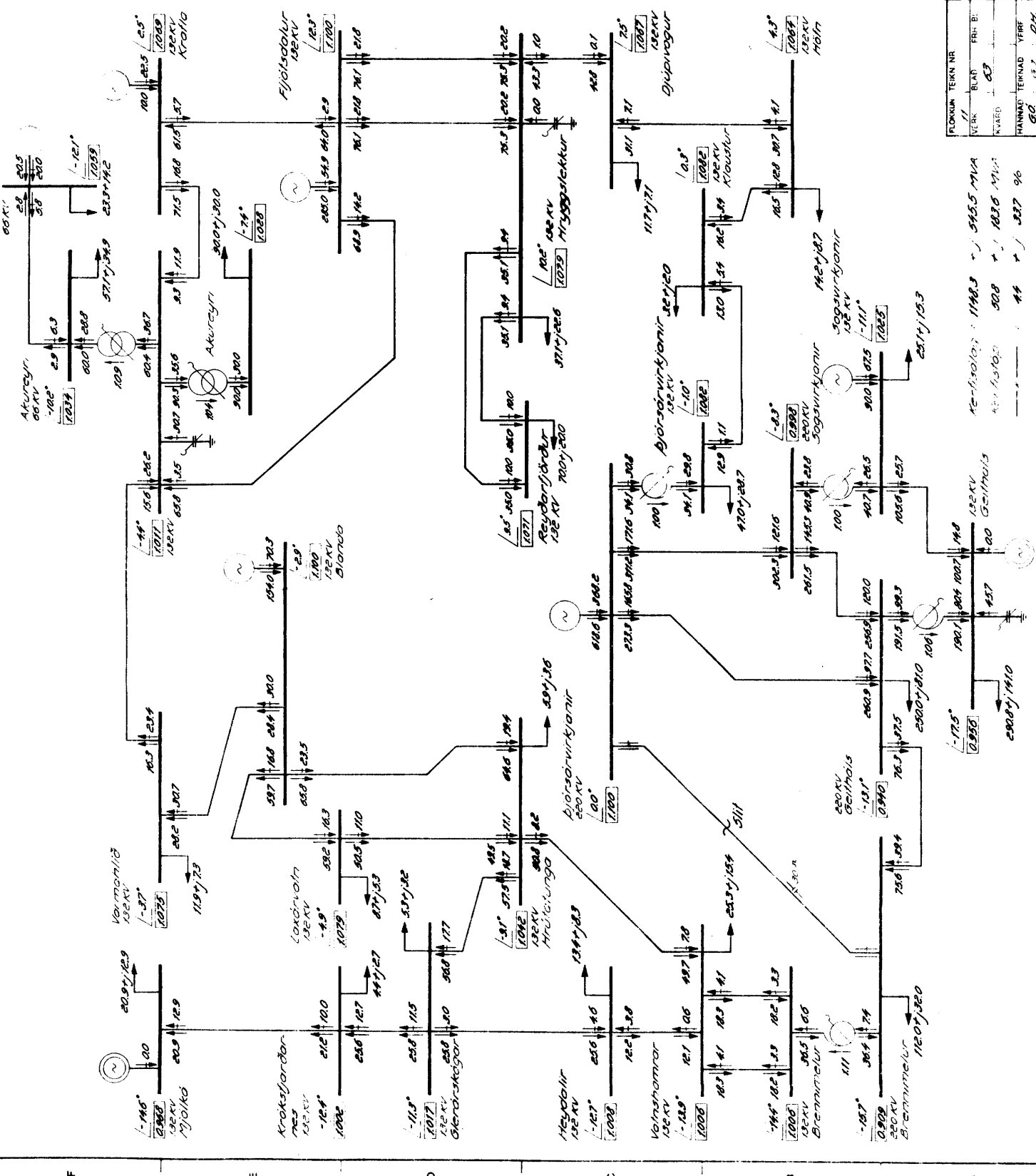
NY STORIDIA 154
 New power intensive industry
 Aspmannpolder 70 MW
 Geinholis 80 MW

Rafömmum
 ANNUL 45 SM 0023

Skýringar e. ískýringar
Legend



Auhgusemdir:
Kraflo 10 MW
Brennifeðlinga slitir
R/O yfir á öllu: Vesturland 136 MW
8 MW
Vestfirðir
Vestfirðir 15 MW
Disill:
ORKUSTOFNUN
VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro-power expansion alternatives
VIRKJUNARLEIÐ: 01 AR: 1993
Expansion alternative: Year: 1993
NÝ STÓRIÐJÚA: Eyjaförður 90 MW, Reyðarförður 90 MW, Brennifeðlingar 90 MW, Gæðingaleið 90 MW
New power intensive industry: Gæðingaleið



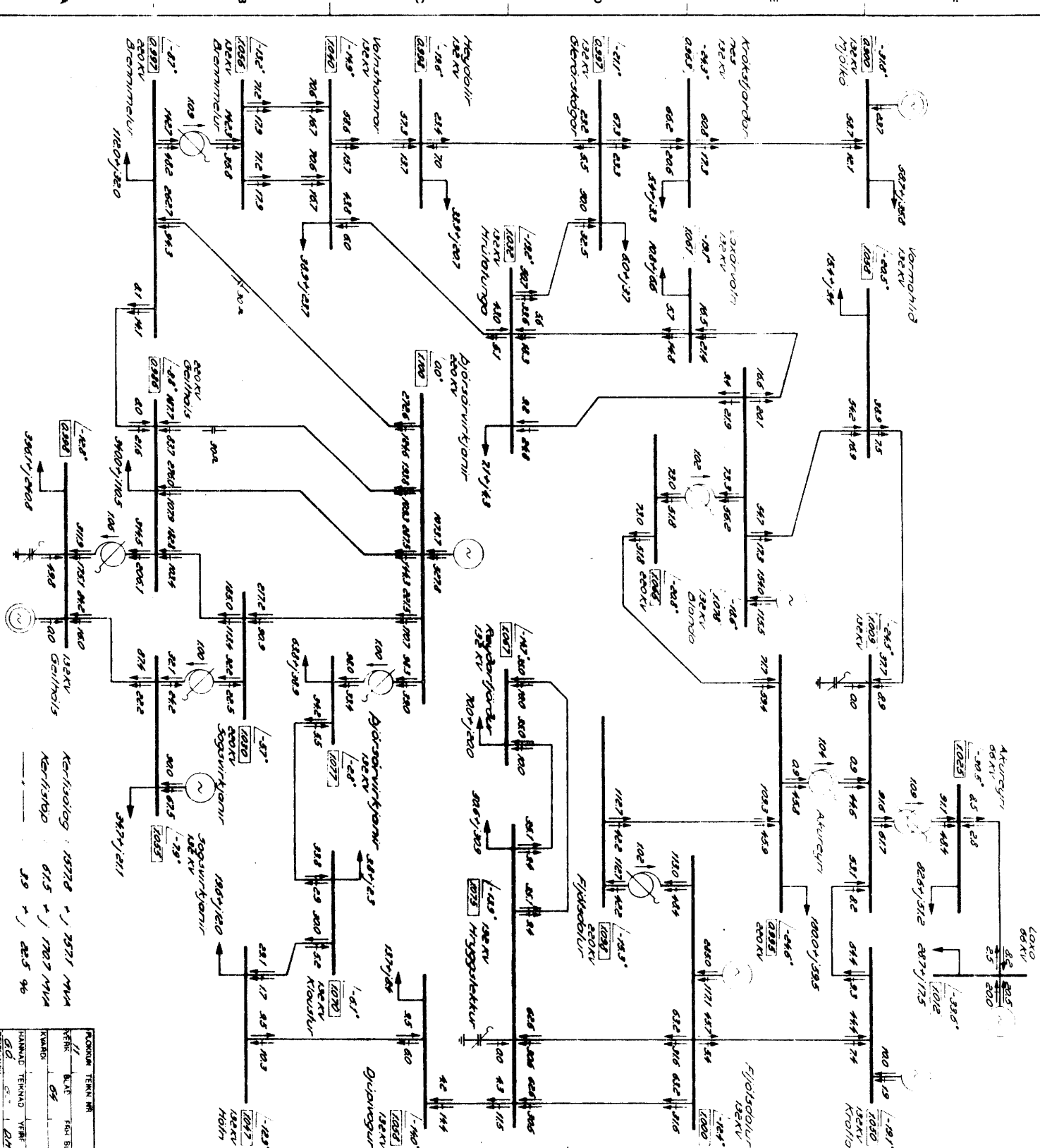
FLOKUN		TEKNI NR	
VERK	BLAÐ	FRN	B
KV.ÁR	89		
HANNAÐ			
TEKNI	VERF		
REYKJAVIK	37	21	
	085	91	

Kerfislosgjafi:	1198.9	+/-	565.5	MVA
4.3.1.3.10.0	508	+/-	103.6	MVA
	44	+/-	327	%

ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro-power expansion alternatives

VIRKJUNARLEIÐ: 01 AR: 1993
Expansion alternative: Year: 1993
NÝ STÓRIÐJÚA: Eyjaförður 90 MW, Reyðarförður 90 MW, Brennifeðlingar 90 MW, Gæðingaleið 90 MW
New power intensive industry: Gæðingaleið



Skulptuurid o. fotokollid
 - 180000

Rotorfunktsioonid
 Electric Power Generation

Lõunafunktsioonid
 Reactive Power Generation

Spennid
 Voltage in pu

Hõlvõid
 From spennid 3.3 igarõõm
 Voltage angle in degrees

Rõõvõid
 Active power in MW

Lõõvõid
 Reactive power flow in MW

Enõvõid
 Auto-transformer

Spennid
 Transformer

Spennid
 Tap setting in pu

Rõõvõid
 Tap changing under load

Rõõvõid
 Capacitor bank

Rõõvõid
 Thyristoristid Rõõvõid
 Static Var System

Rõõvõid
 Seruõõid
 Series compensation
 Load in MW and MVA

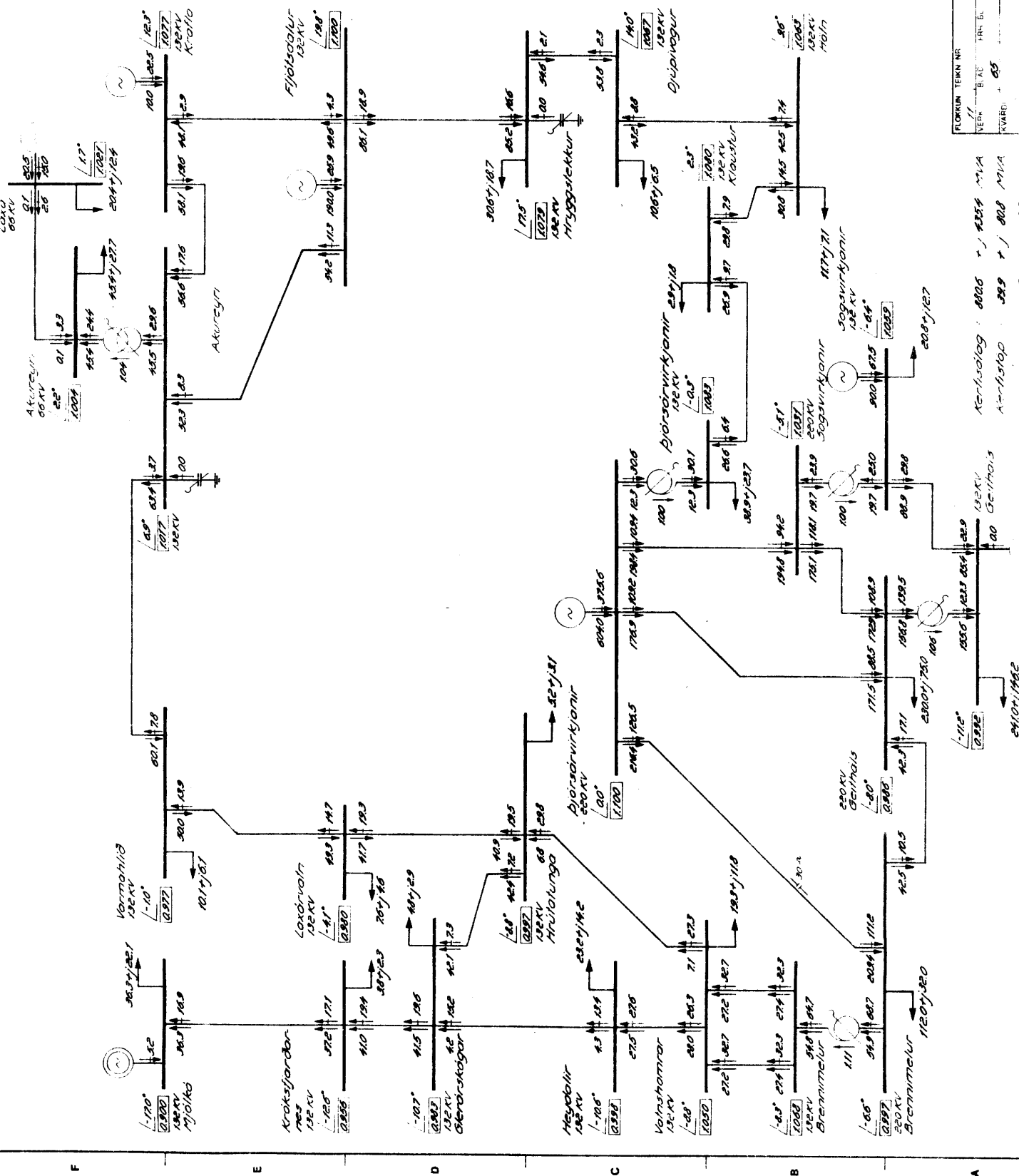
Rõõvõid
 Ahtõõid
 Edited/aktõõid

VIRKJUVARLEID TIL ALDAMÕTA
 Hydro-power suspension alternatives

VIRKJUVARLEID : 01 AR : 2000

VIRKJUVARLEID : 154
 New power alternative industry : Rõõvõid
 Rõõvõid

Balticum



Skýringar og tákunir

- Elektrískur Generatör
- Reaktívur Kraftur / Reactive Power Generation
- Spenna / Voltage in kV
- Hönnuð spennuástand / Voltage angle in degrees
- Reaktívur kraftur / Active power flow in MW
- Lauðisflæði / Reactive power flow in MVA
- Einvíðsþennur / Auto-transformer
- Spennuþennur / Transformer
- Spennubreyting / Tap setting in p.u.
- Alögðisþakill / Tap changing under load
- Þöglvirkni / Capacitor bank
- Þyrstur / Thyristor
- Stöðugt Vörkerfi / Static Var System
- Serulbellur / Series compensation
- Alög / MW and MVA Load in MW and MVA

Alþingusemör

Kraftlo 10 MW
Eðlileg rekstrarástand

ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro-power expansion alternatives

VIRKJUNARLEIÐ : 02
Expansion alternative

NY STORIDJUA : 154
New power intensive industry

ÁR : 1989
Year

10 MW
10 MW

Brennimælur 20 MW
Brennimælur 20 MW

FLÖKUN TERN NR

VER / B / A / TERN BL

STAVUR / 05

FRANNAÐ / TERNIAÐ / TERN

REKINGAÐ / 0 / 01

DEL / 01

6.A

KE-132/132 8000 * / 8254 MVA

KE-132/132 8000 * / 808 MVA

8.5 * / 820 96

24.10.1982

SKYNGIÐ OG TÖKNITVIZ

Refraktormæling
Electric Power Generator

Launaframleiðsla
Reactive Power Generation

Spenna í DV
Voltage in DV

Horn spennuvísar, góðum
voltage angle in degrees

Rönnuflæði 1 MW
Active power flow in MW

Launafliði 1 MW
Reactive power flow in MW

Einvaltafærni
Autotransformer

Spennni
Transformer

Spennuhöf, DV
Tap setting in DV

Algöð-gakkiplur
Tap changing under load

Beltavirki
Capacitor bank

Thyrroslur beltavirki
Static var system

Serubellur
Series compensation

AR 1989

Virjunarleidir til Aldamóta

Virjunarleidir til Aldamóta

441 MV/110 kV
120 kV
110 kV
100 kV
80 kV
50 kV
40 kV
30 kV
20 kV
10 kV

120 kV
110 kV
100 kV
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20 kV
10 kV

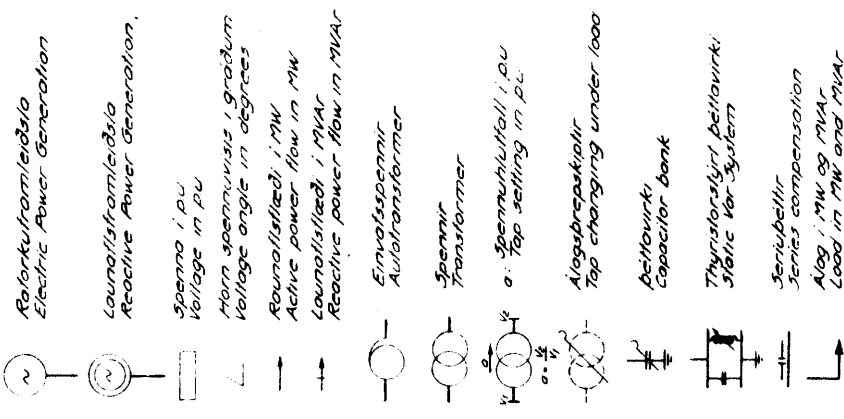
120 kV
110 kV
100 kV
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10 kV

120 kV
110 kV
100 kV
80 kV
50 kV
40 kV
30 kV
20 kV
10 kV

Skýringar á táknum
Legend



Athugasemdir:
Kraftlo - 10 MW
Línur Hríðslunga-Laxarvötn slítt
Þjó á gili á öðru:
Hryggstættur 10 MW
HÖH
HÖH
Akureyri
Hryggstættur 10 MW
HÖH
5 MW

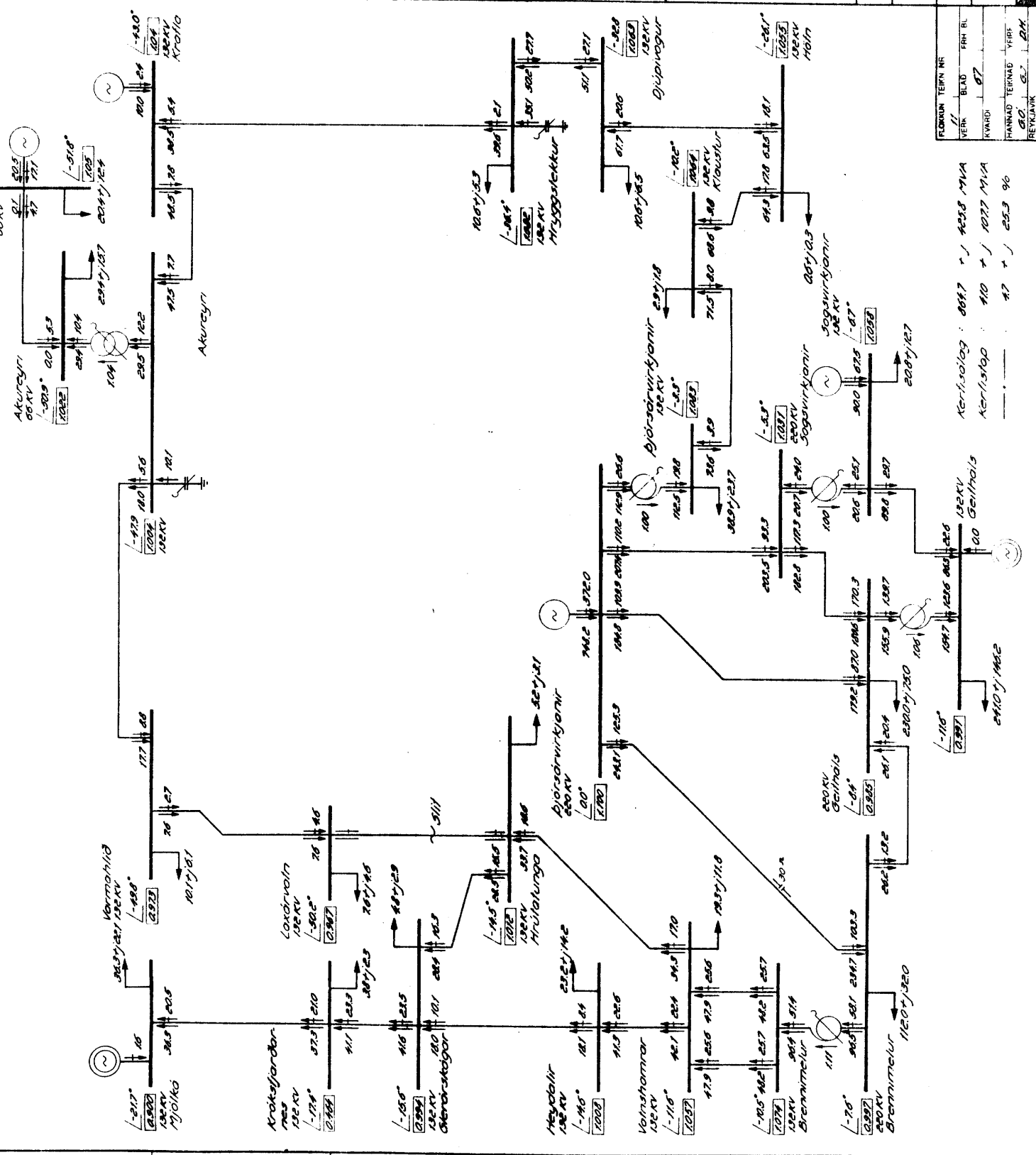
ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 0,3 AR Year: 1989
Expansion alternative

NY STÖRÐJÁ : 1,54 Brennimætur 20 MW
New power intensive industry: Geitholmis 20 MW

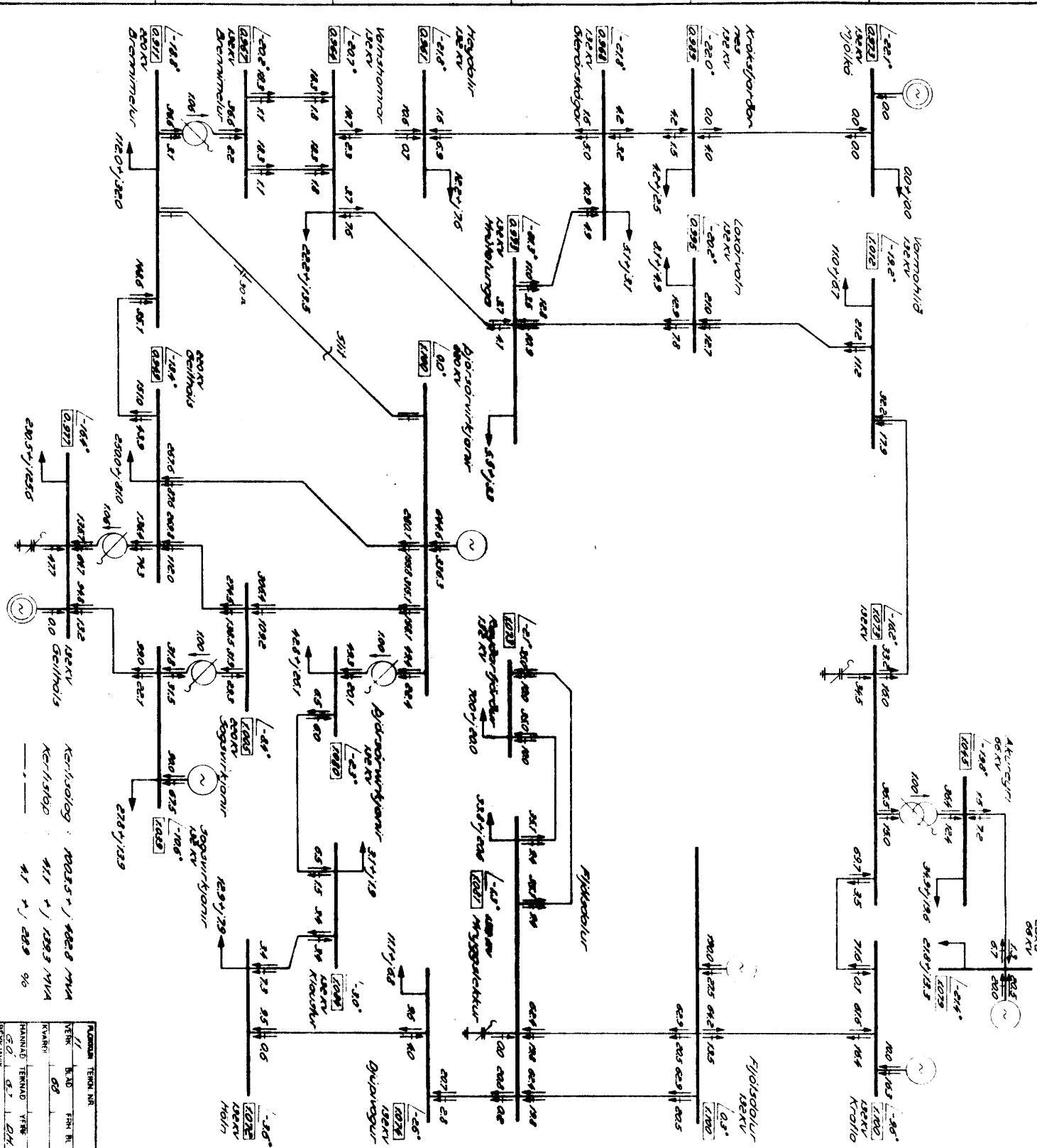
Rafhönnun
ÁRMBÚL 02 Síma 04253



FLÖKKUN		TEIKN NÚM.	
VERK	BLÁD	ERN	RL
KVARNÚM	07		
PANNNAÐ		TEIKNAD	
00	02	01	01
REYKJÁNK		G.	
000	01	1.1	

Ker/100log : 0087 + j 4228 MVA
Ker/1000 : 110 + j 1077 MVA
17 + j 253 96

VERK	BLÁD	ERN	RL
00	02	01	01
000	01	1.1	



Kenningarlög: 2025*, 468,6 MW
 Keri/1,5100 : 411 + 1,283 MVA
 41 + *, 289 90

SKILLINGAR EYREKLIÐI

Legend

- ⊕ Reaktívaframlæging
Electric Power Generation
- ⊖ Lagnishronlæging
Reactive Power Generation
- ⊗ Spanna 1,0U
Voltage in pu
- ⤴ Horn spennuviss : gróðrum
Horn spennuviss : gróðrum
Voltage angle in degrees
- ↔ Rounuflísad / MW
Active power flow in MW
- ↔ Lagnuflísad / MVAR
Reactive power flow in MVAR
- ⊞ Einofisjónnarl
Autotransformer
- ⊞ Spennu
Transformer
- ⊞ o Spennuhallur 1,0U
Tap setting in pu
- ⊞ Aðgæðingakjallur
Tap changing under load
- ⊞ Aðvarnarkapás
Capacitor bank
- ⊞ Thrýstærklöpp / Aðvarnarkapás
Switch for system
- ⊞ Sérubætur
Series compensation
- ⊞ Aðgæðing
Load in MW and MVAR

Virkuáhræðir:
 Kröfing - 10 MW
 Lífring / Höfnun / Gættun - 26 MW
 RÍD gírur 0 ölu:
 Vestfirðir 20 MW
 Vesturland 18 MW
 Dvíll:
 Vestfirðir 30 MW
 Reykjanes 33 MW
 Akureyri 18 MW

Virkuáhræðir TIL ALDAMÓTA
 Hydro - power separation alternatives
Virkuáhræðir: 03
AR: 1991

NY STÖRÐLA : 134 Regðisþjónnarl 20 MW
 Brennimálar 20 MW
 New power intensive industry: Gættun 20 MW
 Akureyri 18 MW

FRÖÐGAFN	TÉKN. NR.		
11	B.10	TÉKN. BL.	
FRÖÐGAFN	68		
HANNAÐ TEGUND	FRÖÐGAFN		
50	82		
FRÖÐGAFN			
102			

Rafhönnun Áskafli 12 Smá 0433

Styring og 10kV netti

Robarkraftmagneti
Electric Power Generation

Countdownmagneti
Reactive Power Generation

Spenna og
Voltage in the
turn transformer, gradient
voltage angle in degrees

Formalised, 1 MW
Active power flow in MW
Localised, 1 MVA
Reactive power flow in MVA

Einvalsspenni
Autotransformer

Spennir
Transformer

Spennuhliðun
Tap setting

Ágönguskapillir
Tap changing under load

Þellvirk
Capacitor bank

Þýðingarkapillir
Stable var system

Serubellir
Series compensation

Álag / MW og MVA
Load in MW and MVA

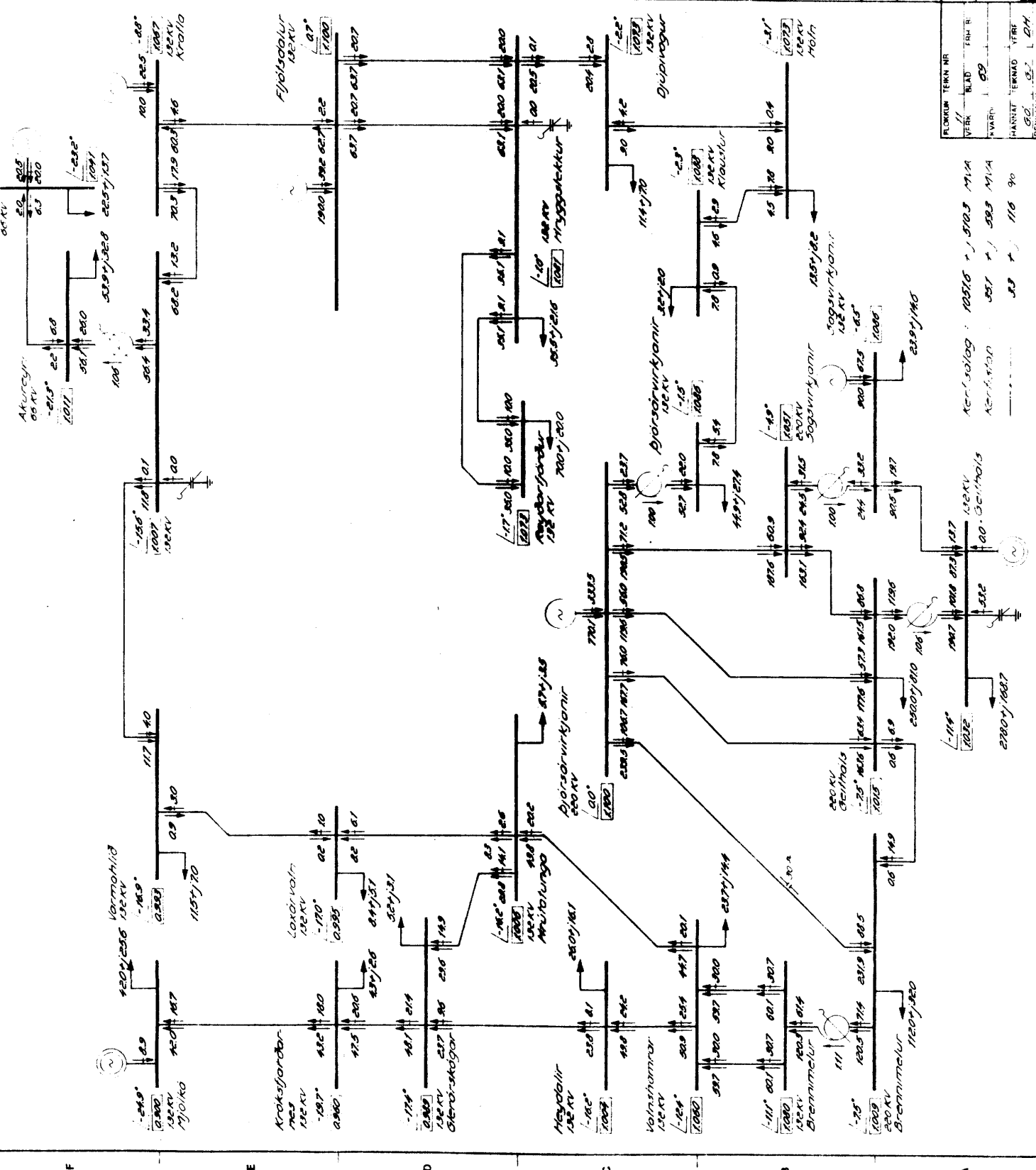
A'flugsmærir
Kraflo 10 MW
Eðlilegt rekstrarástand



VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ	03	ÁR	1992
Expansion alternative		Year	
NY STÖRÐJA	154	Reaktorstöðir 20 MW	
		Stöðvirkir 20 MW	
		Stöðvirkir 20 MW	
		Stöðvirkir 20 MW	
		Stöðvirkir 20 MW	

Rafhönnun
APRIL 12 1988 08:21



FLOKUR TERN NR	
VER	BLD
SVAR	89
HANNT	ERNAD
REKJARV	27
	065 21

100kV	1000	1000	1000
150kV	1000	1000	1000
200kV	1000	1000	1000
300kV	1000	1000	1000

100kV	1000	1000	1000
150kV	1000	1000	1000
200kV	1000	1000	1000
300kV	1000	1000	1000

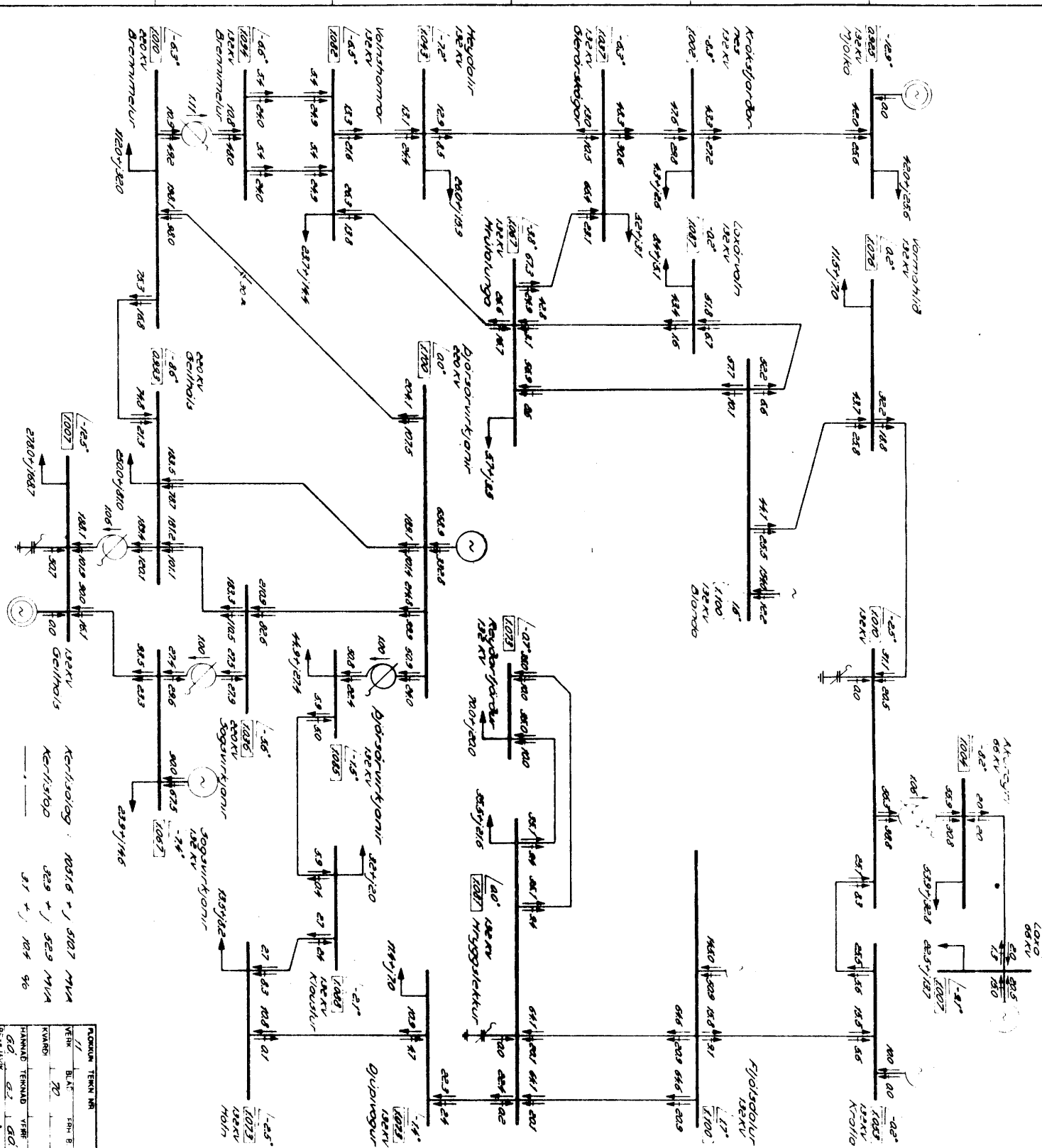
100kV	1000	1000	1000
150kV	1000	1000	1000
200kV	1000	1000	1000
300kV	1000	1000	1000

100kV	1000	1000	1000
150kV	1000	1000	1000
200kV	1000	1000	1000
300kV	1000	1000	1000

100kV	1000	1000	1000
150kV	1000	1000	1000
200kV	1000	1000	1000
300kV	1000	1000	1000

100kV	1000	1000	1000
150kV	1000	1000	1000
200kV	1000	1000	1000
300kV	1000	1000	1000

100kV	1000	1000	1000
150kV	1000	1000	1000
200kV	1000	1000	1000
300kV	1000	1000	1000



Symbol	Description
(Generator symbol)	Skýlingar & vélkennir Legend
(Generator symbol)	Reiðarkrafmgæsla Electric Power Generation
(Generator symbol)	Launaflofmæsla Reactive Power Generation
(Generator symbol)	Spenna, p.u. Voltage in p.u.
(Generator symbol)	Horn samhvervis, φ Gradum Voltage angle in degrees
(Generator symbol)	Röndlöffað, MW Active power flow in MW
(Generator symbol)	Launafloðið, MVar Reactive power flow in MVar
(Transformer symbol)	Einvaldastærni Autotransformer
(Transformer symbol)	Spennu Transformer
(Transformer symbol)	Spennuhlið, p.u. Top setting in p.u.
(Transformer symbol)	Alögðreipi Tap changing under load
(Capacitor symbol)	Beihvorki Capacitor bank
(Capacitor symbol)	Thyrrobylgi beihvorki Static var-system
(Capacitor symbol)	Sevubætur Series compensation
(Capacitor symbol)	Alögð reipi Load in MW and MVar
(Capacitor symbol)	Alhugssemlar Kraflo- og MW Edlilgi rekstrarstöð

Þýðingargátt og lögmæt

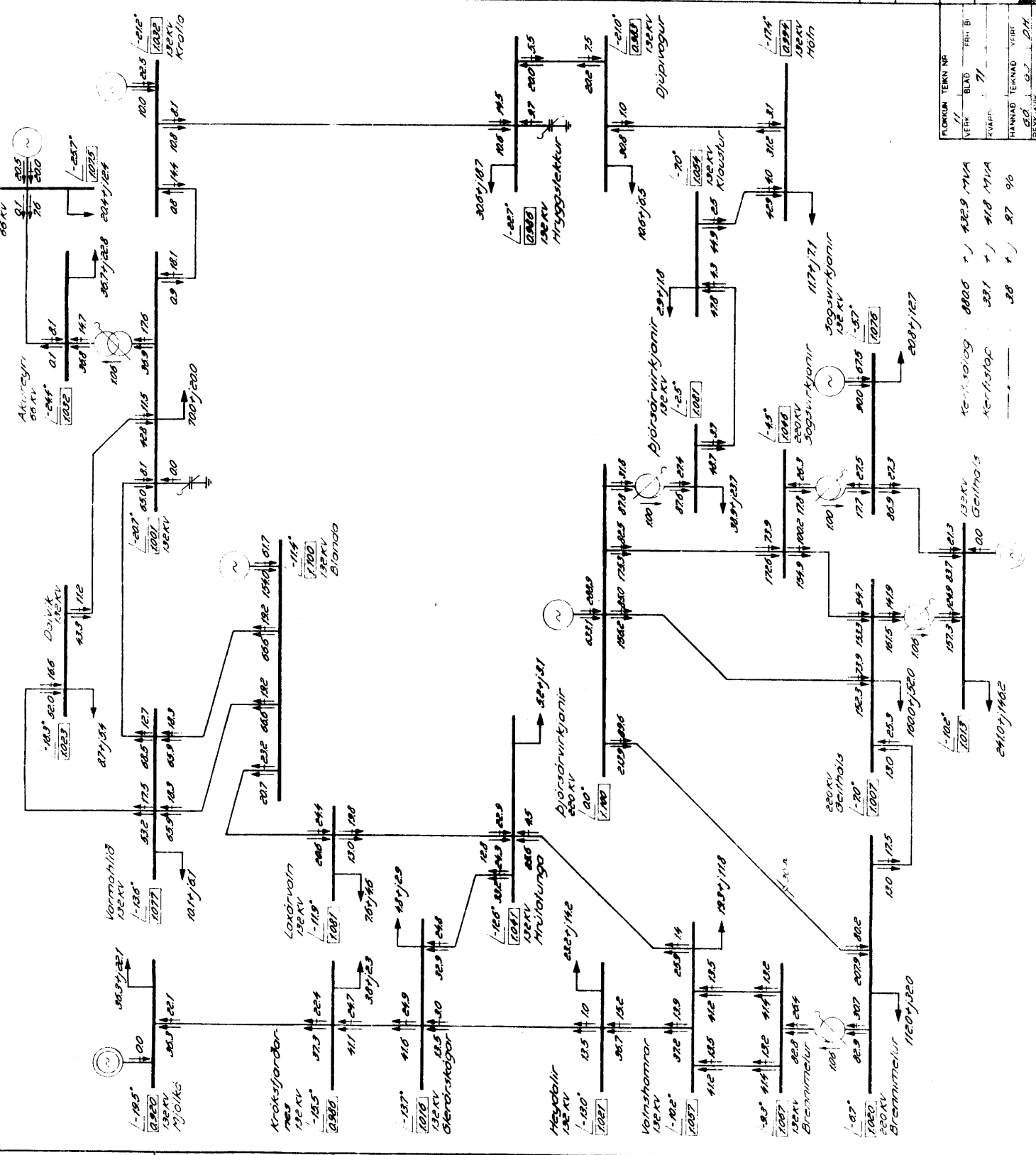


Alfhögsemdir
Kröfla 10 MW
Eðlilegt rekstrarstand

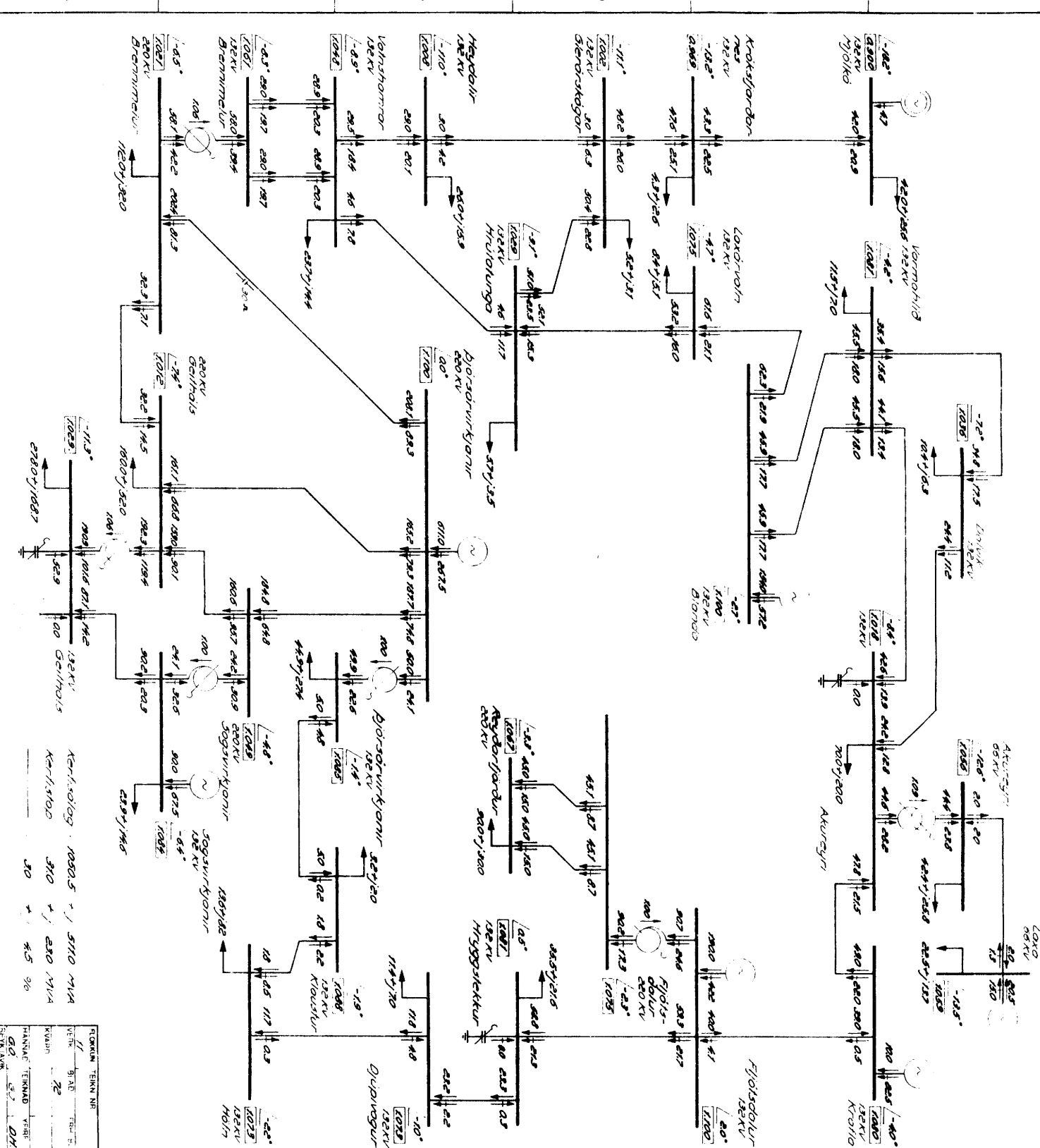
ORKUSTOFNUN
VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ	01	AR	1989
Expansion alternative		Year	
NY STÖRÐJA	155	Eyðisferðir	20 MW
New power intensive industry		Brennimætur	20 MW

Rafhönnun
ANNALI 47 SM 04533



FLÖKKUR	TEKNI NR.		
VEFUR	BLAÐ	FRÍ. BÍ.	
SKYPAÐ	71		
DAGVIND	TEKNI	VIRKI	
REKJAVIK	02	D.M.	
025	01		
KV-1:10109	8800	+	132.9 MVA
KV-1:15105	331	+	118 MVA
	30	+	97
			96



SKJULINGAR og LÖGKALLA
LÝSINGAR

Raforkuframleiðsla
Electric Power Generation

Lunnalshornleiðsla
Reactive Power Generation

Spenna 1,0U
Voltage in pu

horn samskiptis / gradient
Voltage angle in degrees

Reyniðstíflað / 1 MW
Active power flow in MW

Lögnuðstíflað / 1 MW
Reactive power flow in MW

Enni / 3300 kVA
Autotransformer

Spennin / 3300 kVA
Transformer

0-3300 kVA
Top setting in pu

Alggjörgætt / 3300 kVA
Tap changing under load

Þettuvirki / 3300 kVA
Capacitor bank

Þyngjastýrt þettuvirki / 3300 kVA
Static var system

Serubeltin / 3300 kVA
Series compensation

400 / 1 MW og 132 kV
1000 / 17 MW og 132 kV

Virkuvarnir og Lögkalla
Lýsingar

Virkuvarnir til Aldamóta
Hydro-power expansion alternatives

Virkuvarnir : 01
Expansion alternatives : 01

AR : 1992
Year : 1992

Virkuvarnir : 135
New power intensive industry : Þorsdagsvirkjun 135 MW

Virkuvarnir : 135
New power intensive industry : Þorsdagsvirkjun 135 MW

A

B

C

D

E

F

Stærðing og álagning
Sizing and loading

Reaktorframlagslo
Electric Power Generation

Lagnafriðmagnslo
Reactive Power Generation

Spenna í þu
Voltage in pu

Þáttur spennuvissis / gradum
Voltage angle in degrees

Runnsláttur / MW
Active power flow in MW

Lagnafriðmagnslo / MVAR
Reactive power flow in MVAR

Einvaltaspenningur
Autotransformer

Spennni
Transformer

Spennuhliktill. þu
Tap setting in pu

Alagsþræstakvæði
Tap charging under load

Þéttvirkni
Capacitor bank

Þyrskotslýst þéttvirkni
Static Var System

Seríubættir
Series compensation

Álag. í MW og MVAR
Load in MW and MVAR

Alhugasetningar
Kraflo - MW
Eðlilegt rekstrarskipti

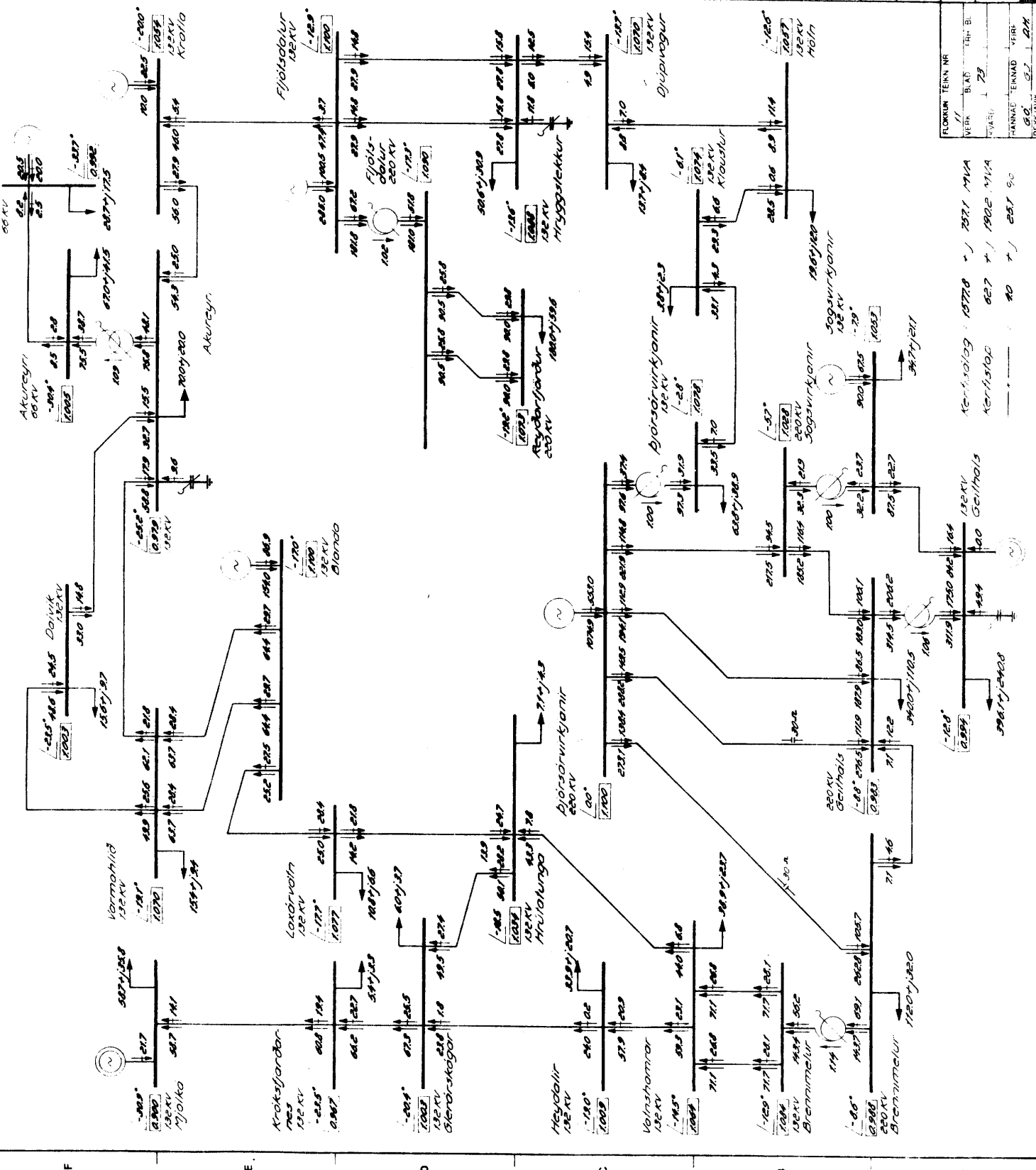
ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ	01	ÁR	2000
Expansion alternative		Year	
NY STÖRÐJA	155	Reykjarfjörður	80 MW
New power intensive industry		Reykjarfjörður	20 MW
		Stremmimelur	100 MW
		Geitahóli	100 MW

Rafhönnun

ÁRNRIL 42 SM 8483



FLOKUN	TEINN NR
VERK	BLAÐ
ÁR	ÞRÍ. BL.
ÁR	23
HANNAÐ	ERNNAÐ
REKJAVIN	VERIÐ
025-81	025-81

1978	1982	1987	1992	1996
1978	1982	1987	1992	1996
1978	1982	1987	1992	1996
1978	1982	1987	1992	1996

Skýlingar á föklunni

Legend

- ~ Raforkuframleiðsla
Electric Power Generation
- ~ Laufvirkni/orkleiðsla
Reactive Power Generation
- ~ Spenna í þu
Voltage in pu
- ∠ Horn samrinnuvalis í gróðrum
Voltage angle in degrees
- Roundroffir í MW
Active power flow in MW
- Laufvirkni í MWAR
Reactive power flow in MWAR
- Einvaldsþennur
Autotransformer
- Þennur
Transformer
- 0: Þennuhallir í þu
o: Tap setting in pu
- Algjafaskakli
Tap changing under load
- Þelvarntki
capacitor bank
- Þryggingarskipti þelvarntki
Static var system
- Sérubellur
Series compensation
- Algjafingni
Load in MW and MWAR

Áhrugaþennur:

Kraflo = 107 MW
Edliing/ raskraftastöð

ORKUSTOFNUN

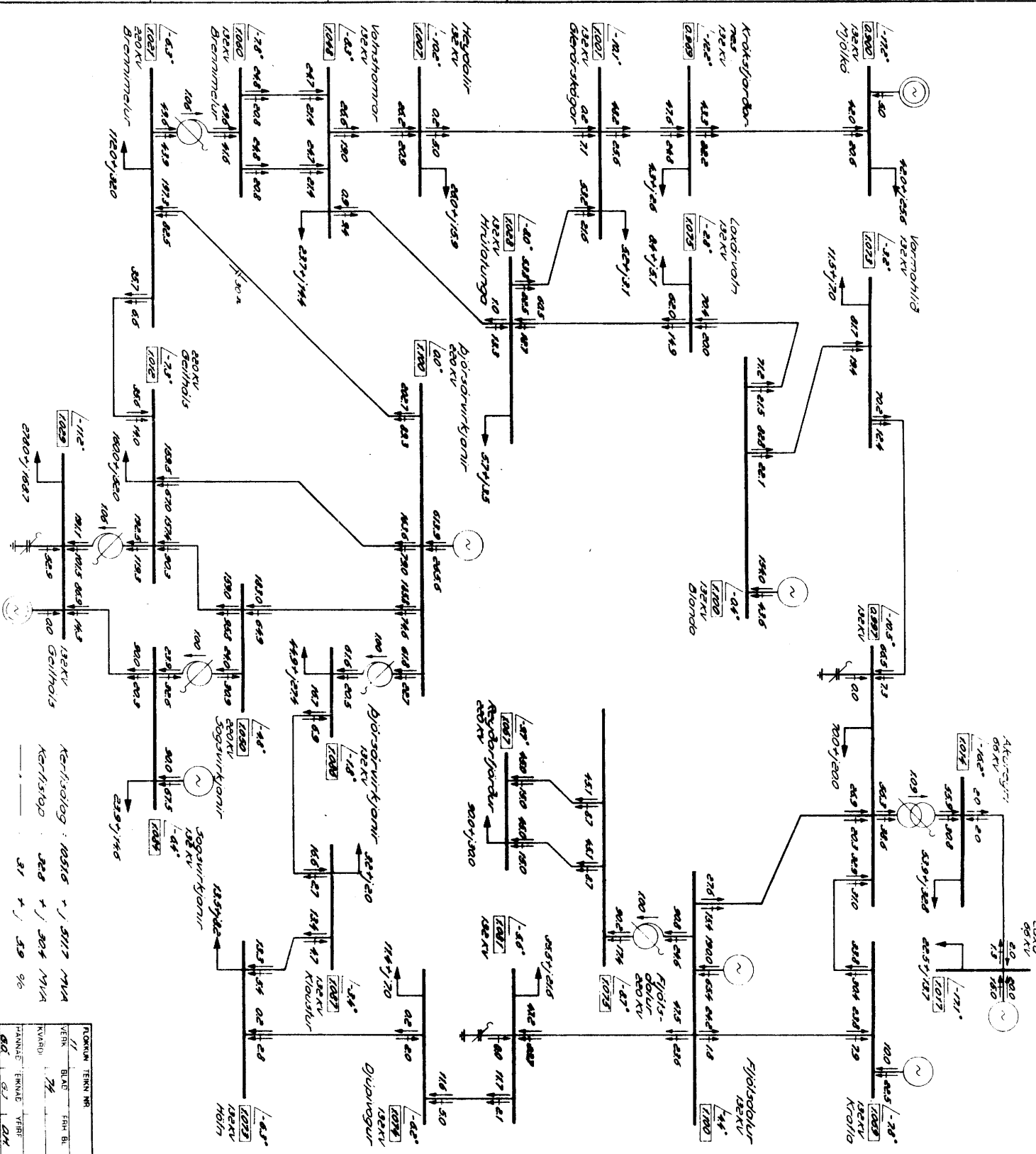
VIKJUNARLEIÐIR TIL ALDAMOYA

Hydro - power expansion alternatives

VIKJUNARLEIÐ : 02 AR : 1992

NÝ STÖRÐIA : 155 Rafvirkni/áhrifa 30 MW
New power intensive industry : Rafvirkni/áhrifa 30 MW

Rafhönnun



Kerfræðing : 10516 + J. SníT MVA
Kerfræðing : 228 + J. SníT MVA

FLOKUR	TEKNI NR.
VEIK	BLAK
VRID	FH. BL.
SKVAD	FR. BL.
FRANK	FR. BL.
REKAMARK	

Styringar e lafarhlutur
Skipting

Robarkrafmagnsóla
Electric Power Generation

Lagnallstrafla
Reactive Power Generation

Spenna í þu
Voltage in pu

Hið spennuvísir í gróðum.
Voltage angle in degrees

Rougnisfrétt í MW
Active power flow in MW
Lagnallstrafl í MVAR
Reactive power flow in MVAR

Ervólsspennir
Auto-transformer

Spennir
Transformer

Spennuhlutill í þu
Tap setting in pu

Alogarskiptar
Tap changing under load

þellvirk
capacitor bank

Þyrsturfrétt þellvirk
Static Var System

Þerubellir
Series compensation

Alog í MW og MVAR
Load in MW and MVAR

Afhugasmiðir

Krafa 101 MW
Eðlilegt rekstrarskipting

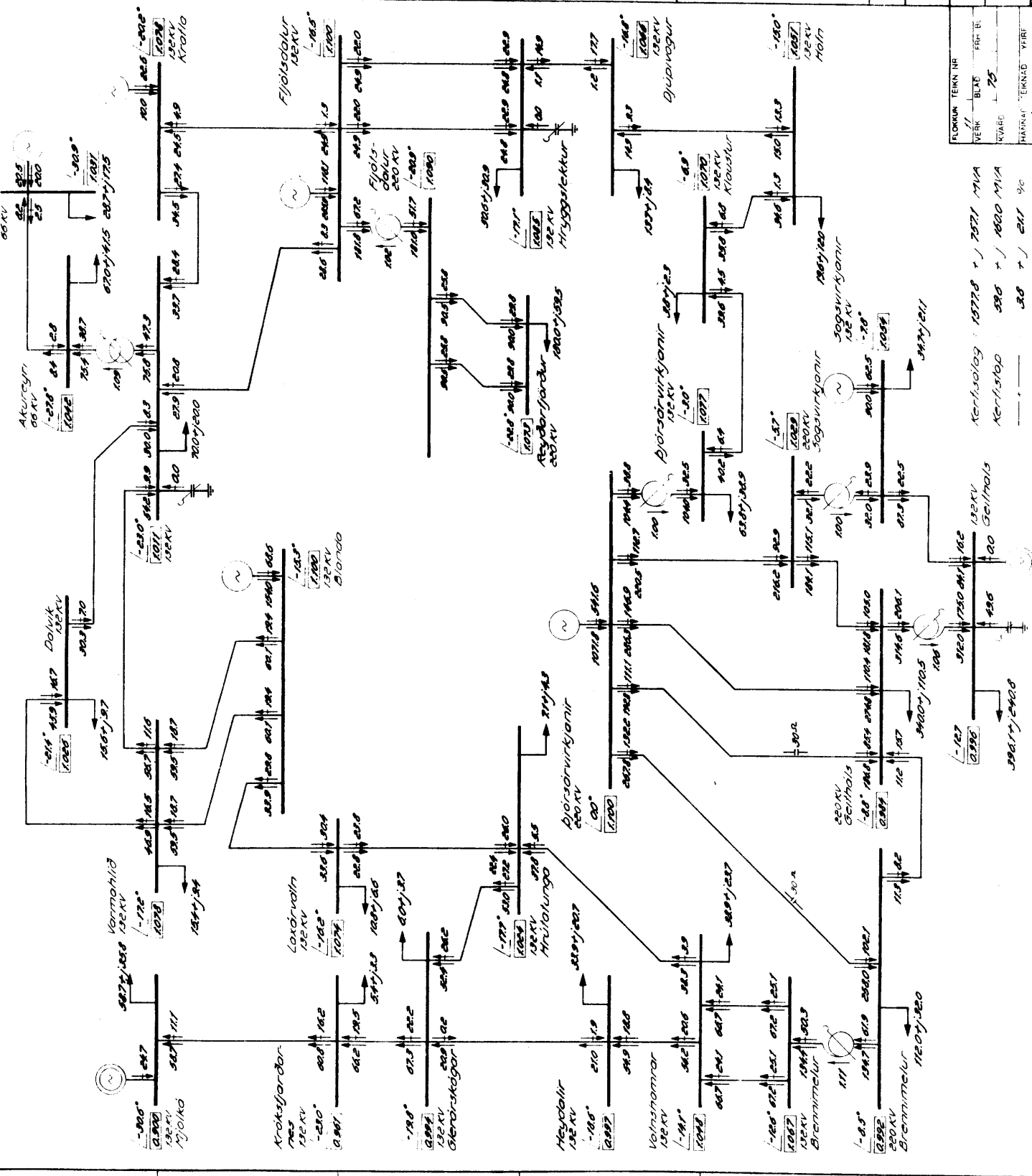
ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro-power expansion alternatives

VIRKJUNARLEIÐ	02	AR	2000
Expansion alternative		Year	
NY STÖRÐJA	155	Eyjaförður 20 MW	
New power intensive industry		Þrengingarmælur 20 MW	
		Þrengingarmælur 80 MW	
		Þrengingarmælur 100 MW	
		Þrengingarmælur 180 MW	
		Þrengingarmælur 200 MW	

Rafhönnun

FORMUL 42 SWI 04833



FLUKKA	TEKNI	TR
VIRK	BLÁ	FR-EL
STÖRÐ	GR	
MARKA	TEKNI	VIRK
REKINGAR	GR	TR

Kerh.isolog	19778	x /	2571	MVA
KE-1,5,10,0	538	x /	1000	MVA
	30	x /	201	%

Skýlingar og tölkuð
LEGGAÐ

Reaktívaflaframleiðsla
Electric Power Generation

Launvirkjanleysis
Reactive Power Generation

Spenna í DV
Voltage in DV

Horn þæmnuvissis í gróðrum
Voltage angle in degrees

Runnflashed í MW
Active power flow in MW

Launvirkleiddi í MW
Reactive power flow in MW

Ernotsspennur
Autotransformer

Spennur
Transformer

Spennuhleðill í DV
Tap setting in DV

Ágöðdrengskipul
Tap changing under load

Deiluvorki
Capacitor bank

Þrygghættuþing
Stable Ver System

Seruvæðing
Series compensation

Ágöð í MW og MVA
Load in MW and MVA

Arngæsummari
Krafli þönn
Edliligi rekstrarvand

ORKUSTOFNUN

VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 03
Expansion alternative : 03

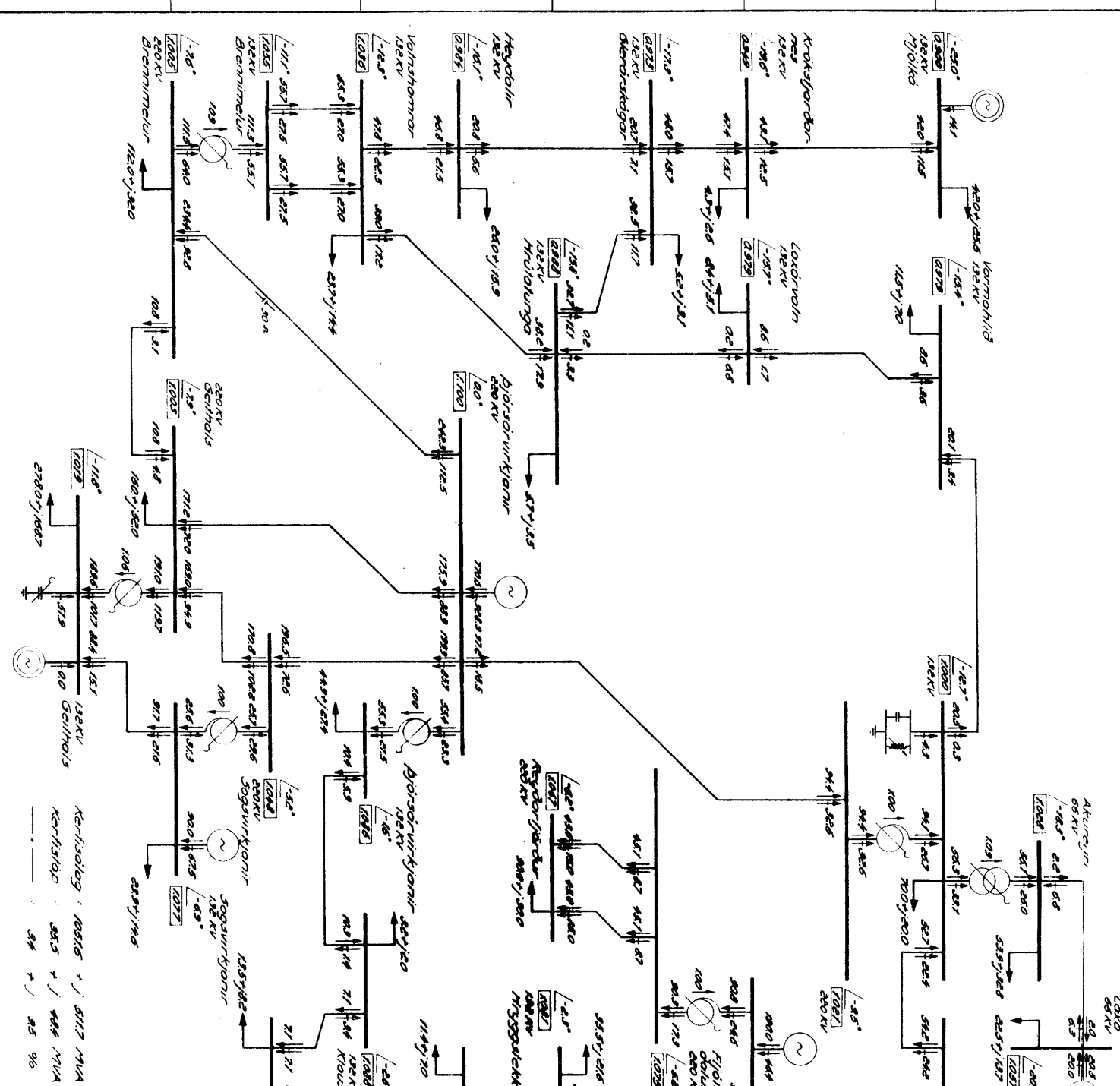
NY STÖRÐIA : 135
New power intensive industry : 135

Reykjavík
Reykjavík
Reykjavík
Reykjavík

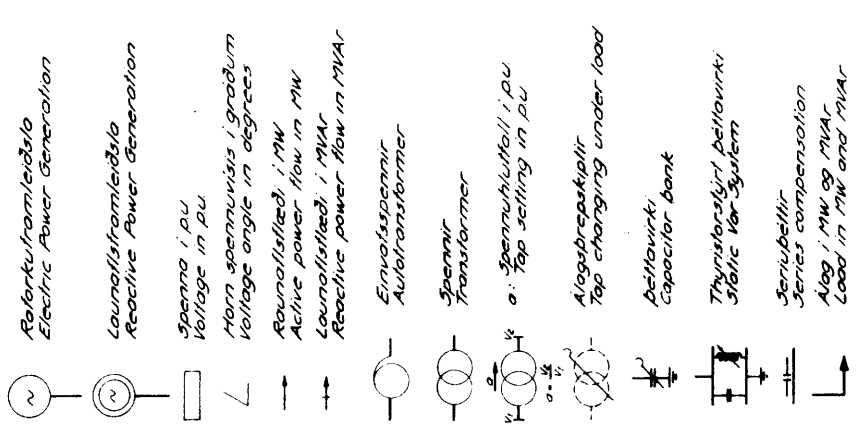
Reykjavík
Reykjavík
Reykjavík
Reykjavík

Rafönnun
Rafönnun
Rafönnun
Rafönnun

FLÓÐUR	TERN	HR
VEK	BLD	FIN
KIVABÍ	75	BL
HANNAÐ	TERNAÐ	VIÐF
REKJAVN	03	03



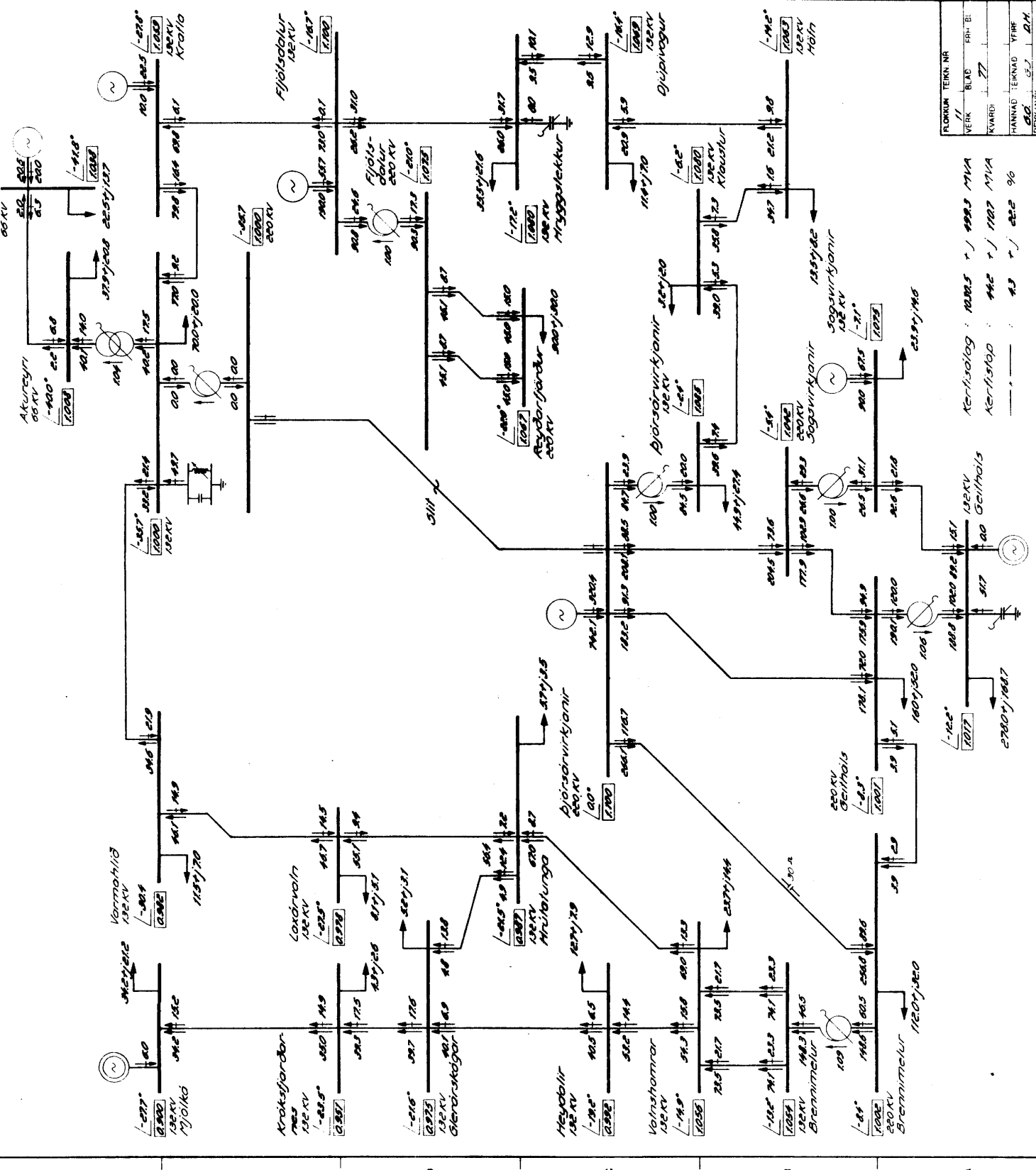
Styringag. o. táknautil
Legend



Athugasemdir:
Krafta 10 MW
Mólandið lítið
R/O gili-ó ölu : Kesturard 13.3 MW
78 MW
Dæill: Akureyri 10.1 MW

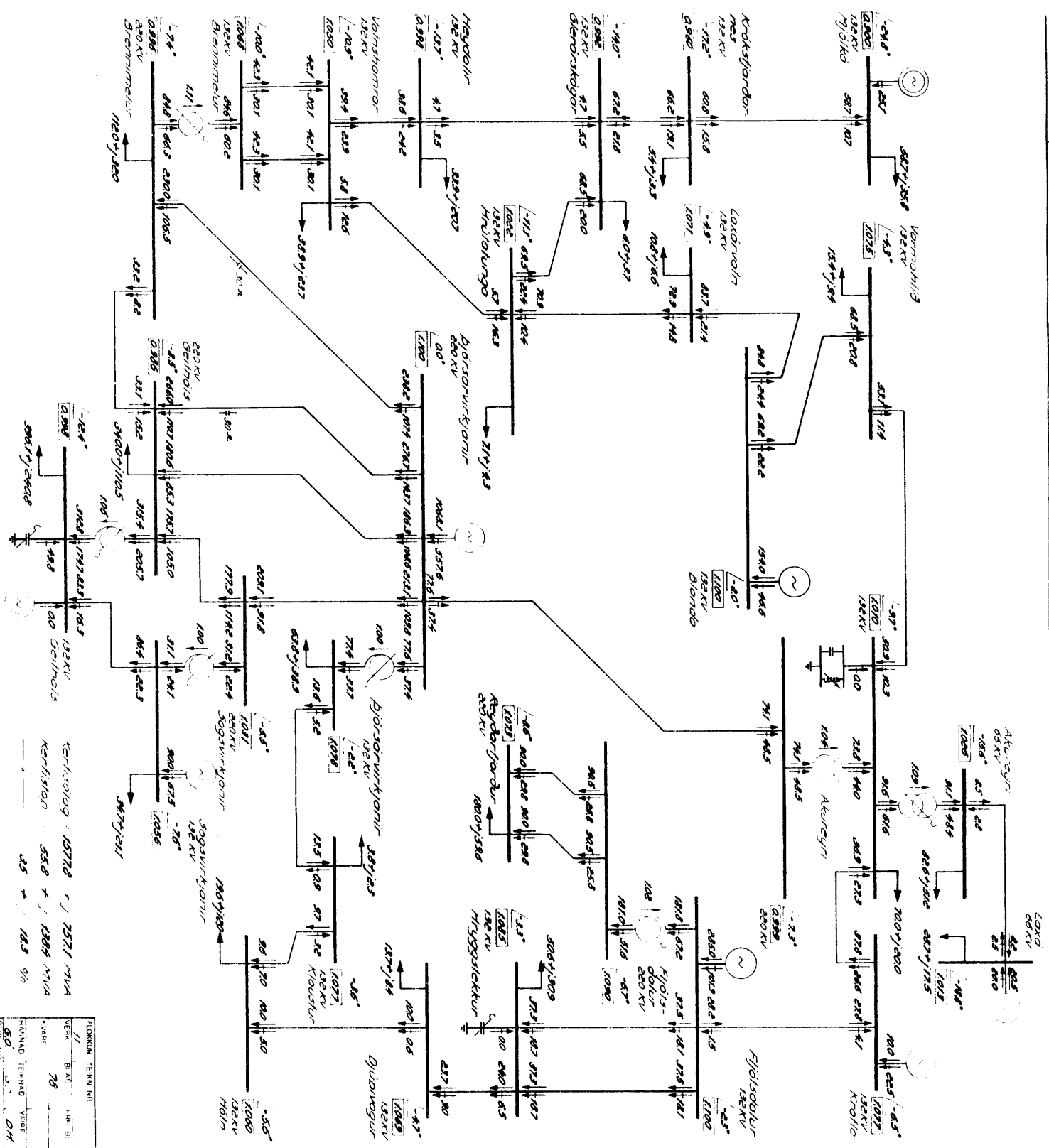
ORKUSTOFNUN
VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 03 **ÁR :** 1992
Expansion alternative: Year:
NY STÓRIÐJA : 155 **Kesturard 10 MW**
New power intensive industry: **Gylfjörður 20 MW**
Brennimelur 20 MW



FLORUM	TEKNI	NR
VERK	BLAÐ	PH: B1
KVAÐI	77	
HANNAÐ	TEKNAÐ	VIÐH.
REYKJAVIK	05.7	01.8
	05.8	01.8

Kerfiðslög :	1000.5	+ /	999.3	MVA		
Kerfiðslöð :	442	+ /	1007	MVA		
			4.3	+ /	22.2	%



Skýringar á ískilutliti Lagona

Robarkrafmagnssto Electric Power Generation

Lauðisframleiðsla Reactive Power Generation

Sagna 1,00 kV og 1,00 kV

Roundabout 1,00 MW Active power flow in MW

Einvaldsstöðvar 1,00 MW Electric Power Generation

Spennu Tölvuþrátt 1,00 kV

4.000 kV - 10 MW Top charging under load

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

Þröngvirkjanir 1,00 MW

ORKUSTOFNUN

VIRKUNARLEIÐ TIL ALDAMOTA

Hydro - power expansion alternatives

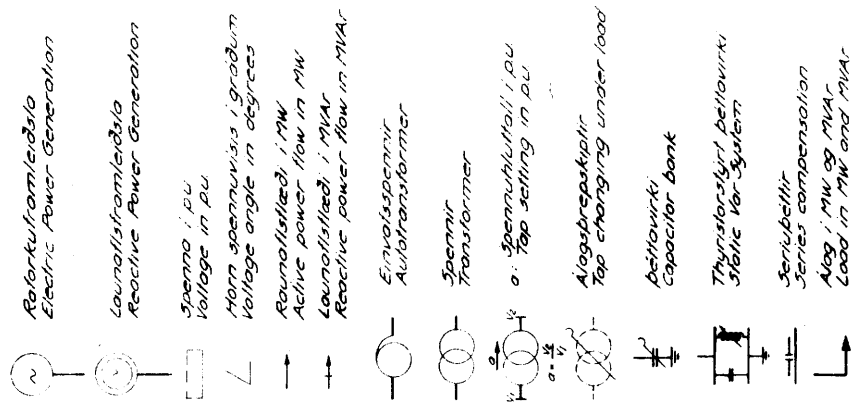
VIRKUNARLEIÐ 03 AR 2000

NY STORIDJIA 155

New power initiative Industry: 155

Rafbönnun

Skýringar o. tákna
Legend

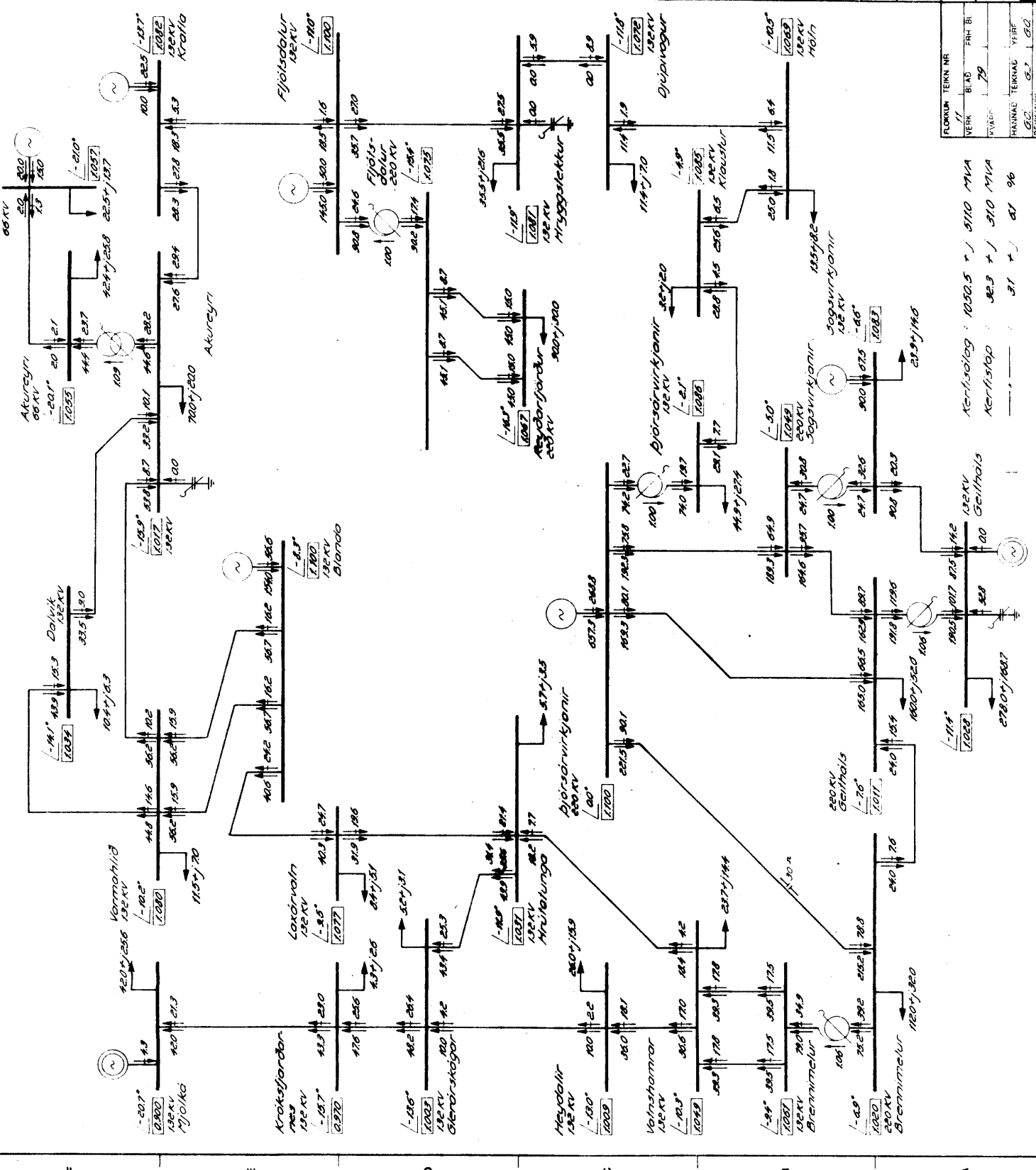


Afhugasemdir:
Krafta - 10 MW
Eðlilegt reistaraband

ORKUSTOFNUN
VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 04 AR : 1992
Expansion alternative : Year
NY STÖRÐJA : 1995
New power alternative :
New power alternative industry :
Reykjarfjörður 30 MW
Seyðisfjörður 20 MW
Reykjarfjörður 30 MW

Rafhönnun
ANNAL 12 3M 8483



FLOKUN TERN NR	
VERK	BLAÐ PRH BL
SVÖR	79
HANNAÐ	TERNAÐ
REKJAVIK	VERFIR
025 87	025 87

Kerfiþyng : 1050.5 r / 5110 MVA
Kerfiþyng : 82.3 r / 310 MVA

31 r / 81 %

2780 r / 1687

132kV
107 815 / 142

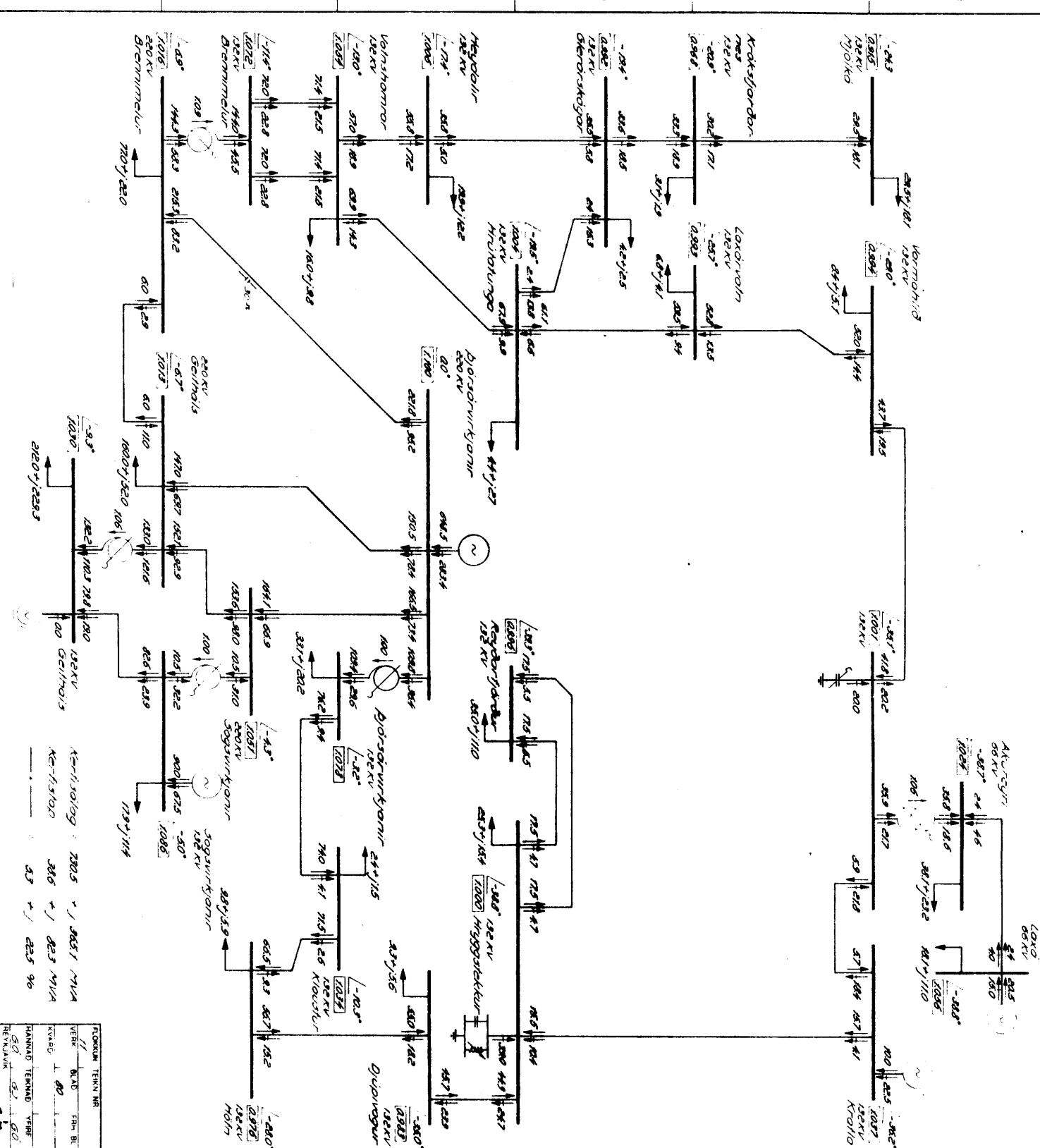
2780 r / 1687

2780 r / 1687

2780 r / 1687

2780 r / 1687

2780 r / 1687

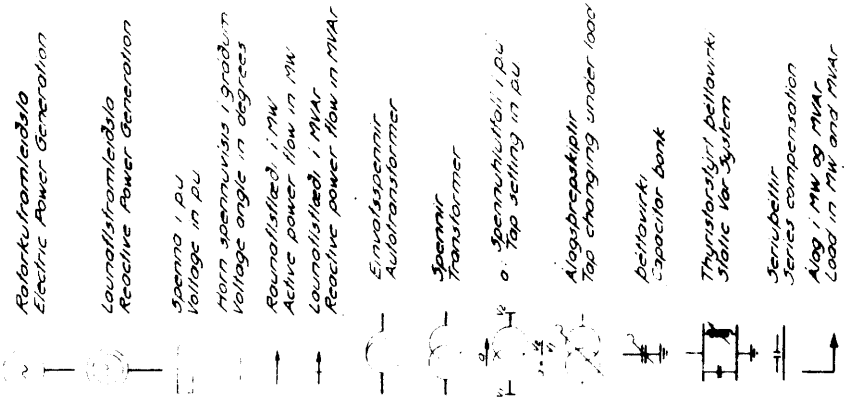


<p>Skilningar og fótaklazz LAGANZ Raforku/hom/eiðsio Electric Power Generation</p>	<p>Lauvalshom/eiðsio Reactive Power Generation</p>	<p>Spanno 1.0U Voltlage in pu</p>	<p>Form sammuvisu / gnomum Voltlage angle in degrees</p>	<p>Rounuflistilid / MW Active power flow in MW</p>	<p>Lauvalshifid / MWAR Reactive power flow in MWAR</p>	<p>Einvaldsdenur Auto-transformer</p>	<p>Spennur Transformer</p>	<p>Spannahlifoll / pu Tap setting in pu</p>	<p>Afgæðingakapítill Tap changing under 1000</p>	<p>Afgæðingur capacitor bank</p>	<p>Thyrskotslign þetturk Static var system</p>	<p>Sevubettir Series compensation 400 / 1 MW og 114R Load in MW and MWAR</p>	<p>Afnagðsemmur Kraflo - BTM Edilligri rafströðing</p>	<p>Virkuunarleidir til Aldamota Hydro - power expansion alternatives</p> <p>Virkuunarleiid : 01 AR : 1986 Expansion alternative : 01 Var :</p> <p>Ný Stöðva : 136 Rafstöðva 35MW New power Intenche bakety : Djórörvirkjónir 35MW</p>	<p>Rafömmun ANNUL 42 506 4433</p>
---	---	--	---	---	---	--	---	--	---	---	---	---	--	---	---

Flöskun	TEKNI	NR
VERZ	BLJG	FM BI
KVABG	1	40
PLANNAÐ	TEKNAÐ	YFIRI
REYNLAUN	GR	600
dec 97	6.11.	

Kraftsjöbor : 2905 + J 9851 1114
 KE-1:3100 386 + J 823 1114
 33 + J 223 96

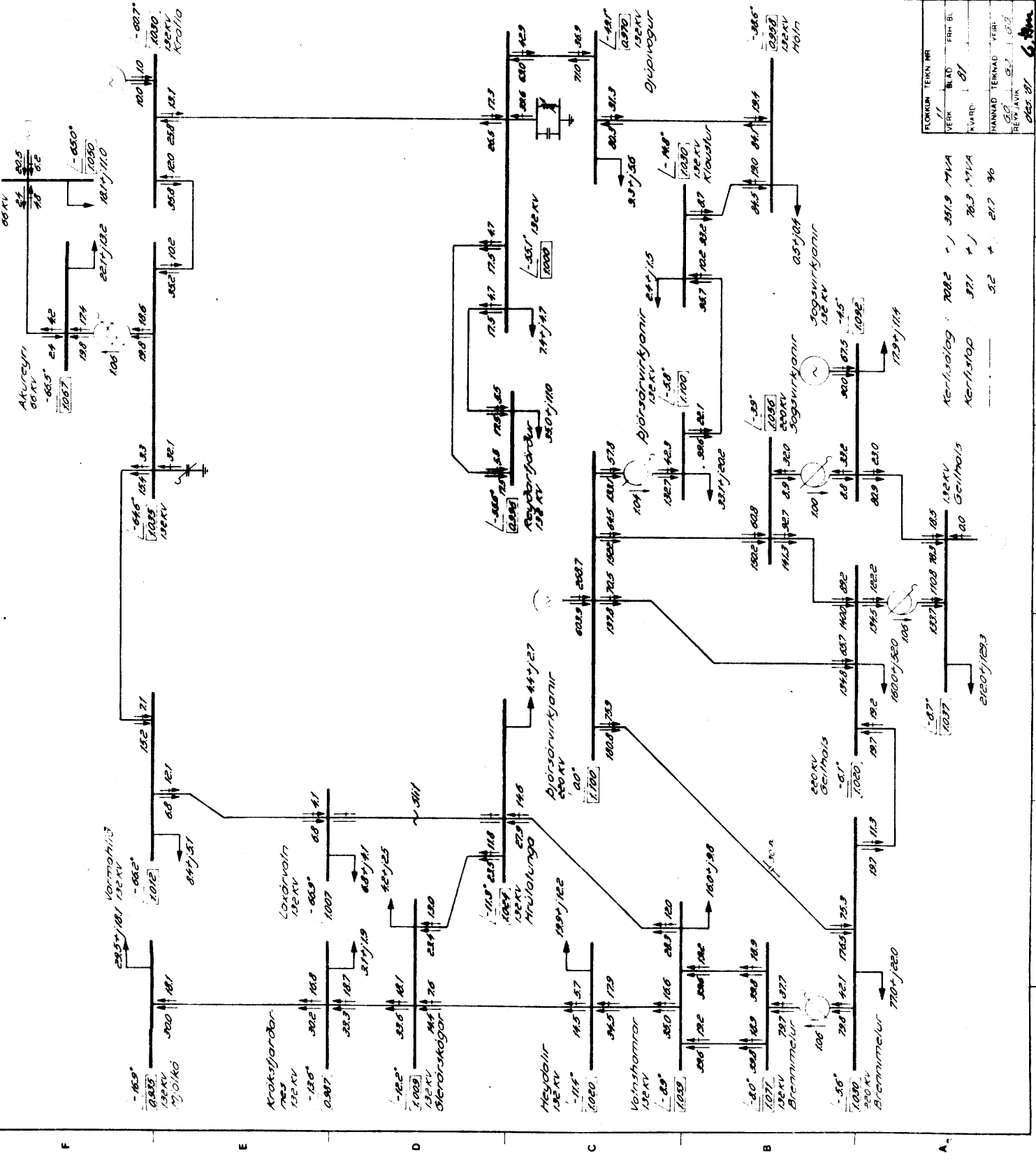
Styrimyndir af Raforkunum
Legend



Almúgasemdir.
Krafta = 10 MW
línan Hríblungu - Laðarvöln slítt
Díll: Akureyri 16 MW
Hryggstæki 10 MW
Höfn 5 MW
Þ/ó yfir á öllu.
Hryggvæðing 30 MW
Höfn 45 MW

VIRKJUNARLEIÐ TIL ALDAMÖTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 01 AR : 1986
Expansion alternative : 136 Reyðarfjörður 30 MW
NY STÖRIDA : 136 Reyðarfjörður 30 MW
New power intensive industry : Þrændimark 35 MW



FOLKUN TERN NR	
VERK	ERT BL
NR	81
NR	81
HANNAÐ TERNNAÐ	VER
REYLAUK	81
81	81
81	81

VERK	NR	ERT BL
Kerlingarfjörður	7082	301.9 MVA
Kerlingarfjörður	311	76.3 MVA
	52	21.7 96

21204/1293

1000V Geilholts

1000V Geilholts

1000V Geilholts

1000V Geilholts

1000V Geilholts

1000V Geilholts

1000V Geilholts

1000V Geilholts

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1000V Geilholts

Figuring & Lokkull

ESGCR

Reaktorhúsið
Electric Power Generation

Reaktorhúsið
Reactive Power Generation

Spennu 1, 2U
Voltage in 2U

4mm spennu við 3 gróðm
4mm 3-phase in degrees

Runnliðir 1 MW
Active power flow in MW

2U-þráttir 1 MW
Reactive power flow in MW

Spennu
Autotransformer

Spennu
Transformer

Spennu 1, 2U
Top selling in 2U

4 og 6 þráttir
Tap changing under load

þönnu
reactor bank

Þyngdarmál þönnu
Stöðvað system

Spennu
Series capacitor

4 og 6 MW og 1 MW
Load in MW and 1 MW

Afhugsemi
Kæli- og 1 MW
Eðli og reaktorhúsið

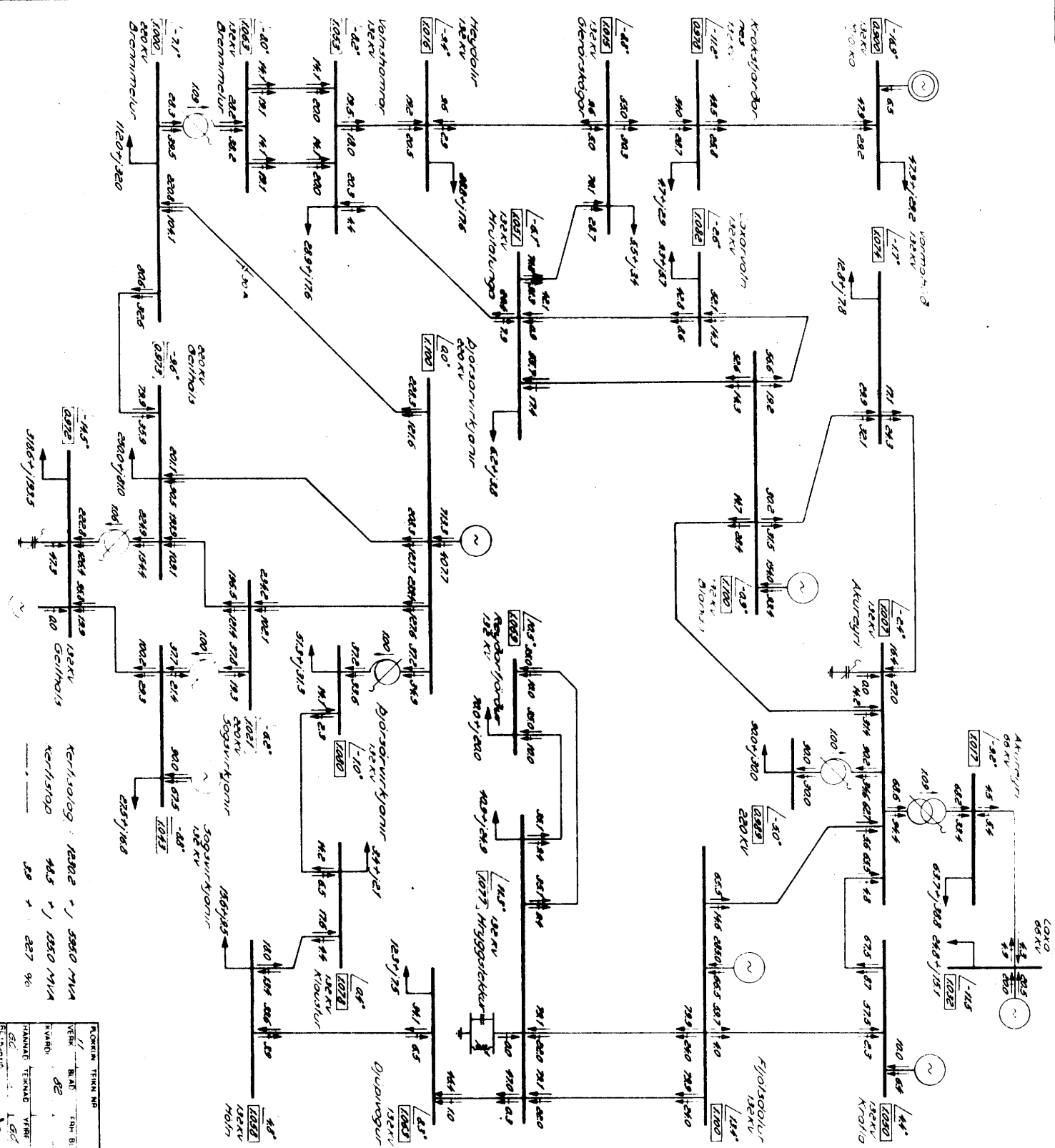
VIRKUNARLEIÐIR TIL ALDAMOTA

Hydro power expansion alternatives
VIRKUNARLEIÐ : 01 AR : 1995

NY STÖRÐLA : 136
New power intensive industry :
Kæli 20 MW
Spennu 20 MW
Reaktorhúsið 20 MW
Eðli 20 MW

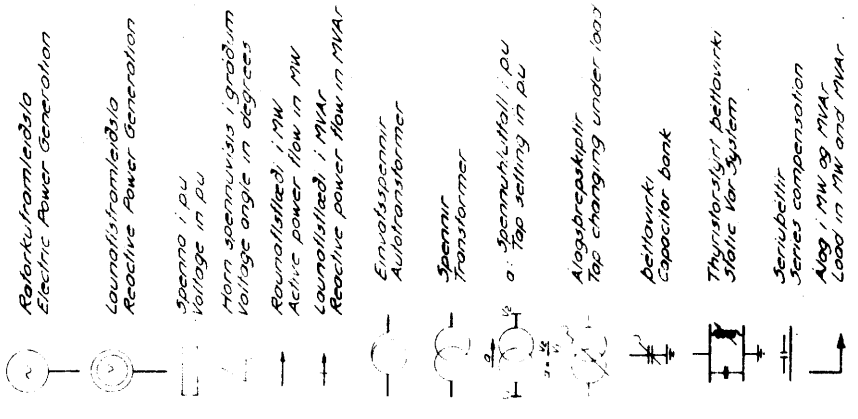
RAFFIÖNNUN
ANNAH 12 Stj. 44333

FLÖKIN	TEKNI	NR.
VERK	BLATT	FN. NR.
KVAÐ	82	
HNANNAÐ	TEKNI	VIÐF.
REKINGAR	1.66	
ÖSST. D/1	9. Vm	



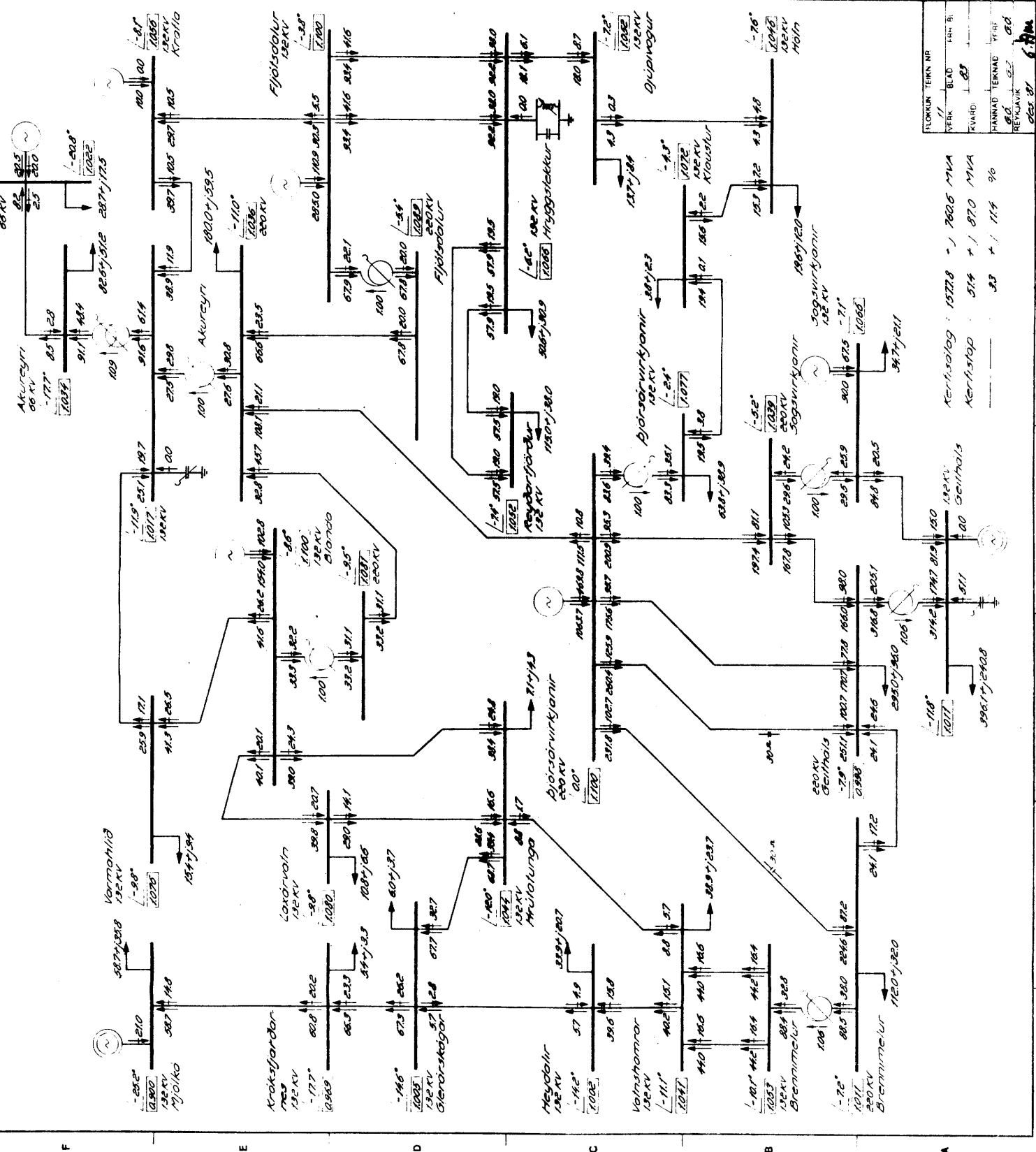
Reaktorhúsið : 12002 + 1 5850 MW
Kerhúsið : 485 + 1 1250 MW
28 + 287 96

Skýringar á Tákunum
Legend



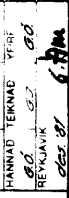
Almúgusemali
Krafta = 10 MW
Eðlilegt rekstrarstand

VIRKJUNARLEIÐIR TIL ALDAMÖTA Hydro - power expansion alternatives	
VIRKJUNARLEIÐ : 01	ÁR : 2000
Expansion alternative : 156	
NY STÖRÐIA : 156	Reykjarfjörður 155 MW
	Eyjafjörður 180 MW
	Þrengingur 130 MW
	Geitfjörður 130 MW



VERKUN	TERNA NR	1441	11
VERK	BLAÐ	85	
VARAÐ	TERNA	1158	01
HANNAÐ	TERNA	1158	01
REKJUN	SE	01	01
02	01	01	01

Kerfið hefur 15728 x 7605 MVA
Kerfið hefur 514 x 870 MVA
33 x 114 96



Almúli 42 SM 8453

Skjalnúmer og tekiúmer
Lágbeldi

Raforkunframleiðsla
Electric Power Generation

Launloftshramlaðila
Reactive Power Generation

Spennu / pu
Voltage in pu

Horn spennuvissis / grobnum
Voltage angle in degrees

Rönnvirkni / MW
Active power flow in MW

Launloftshrá / MW
Reactive power flow in MW

Einoflagnennar
Autotransformer

Spennu
Transformer

Spennu / pu
Tap setting in pu

Alögspennuþrá
Tap changing under load

Þögnvirkni
Capacitor bank

Þyngisrástígr þögnvirkni
Shunt reactor for system

Serubætur
Series compensation

Aug / MW og MWAR
Load in MW and MWAR

Alhugusemdir
Kraflo- og MW
Lineon Fjölskiðlar-Myggskiðkur-skiðin

VIRKJUNARLEIÐIR TIL ALDAMÓTA

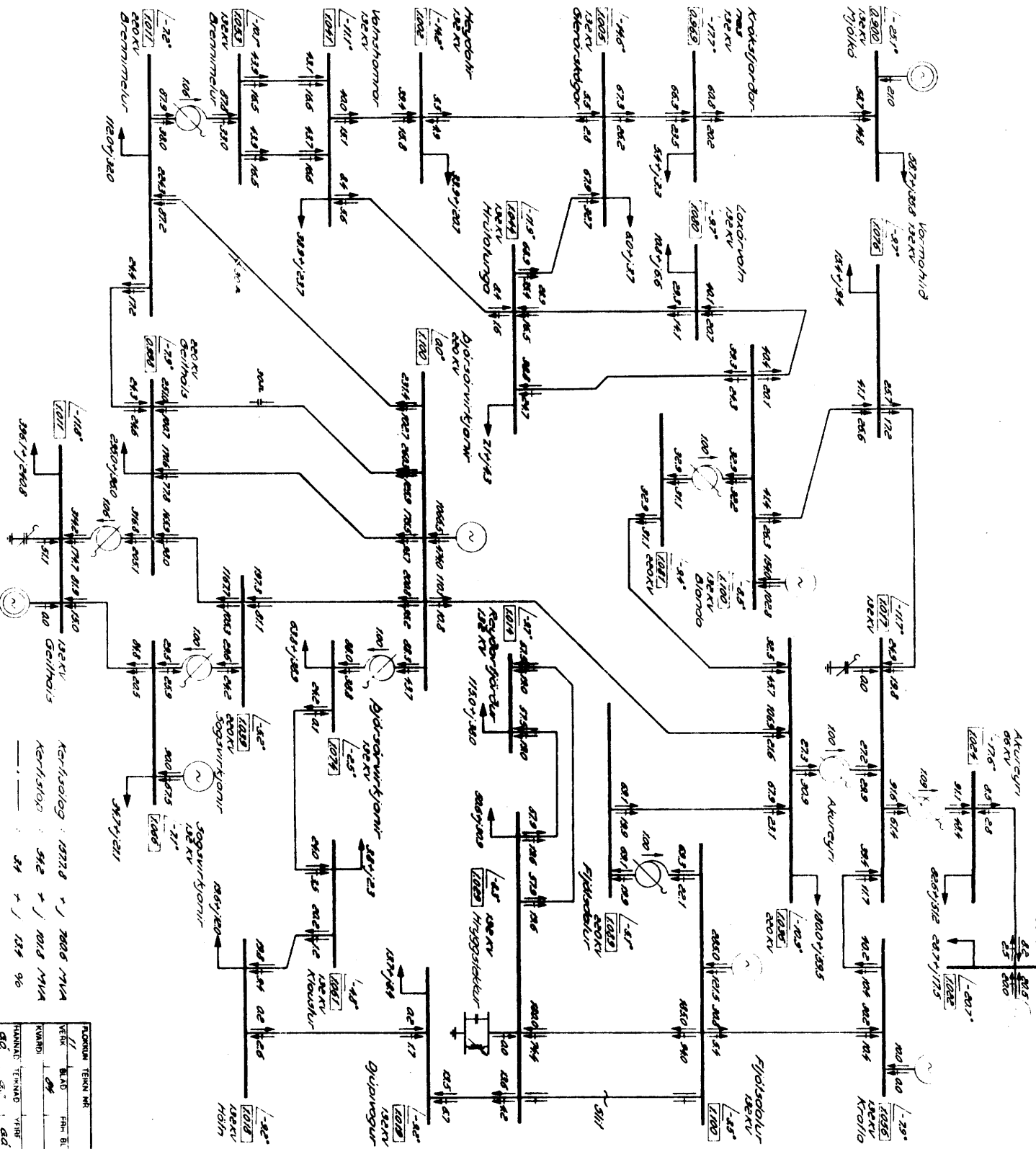
Hydro - power expansion alternatives

VIRKJUNARLEIÐ : 01 AR : 2000

Expansion alternative : 156

NEW POWER INSTALLATION INDUSTRY

Rafönnunum



Kerfiþéttleiki : 0,0738 + j 0,008 MW/km²
Kerfiþéttleiki : 342 + j 0,018 MW/km²
Kerfiþéttleiki : 34 + j 0,134 MW/km²

FLÓKUR	TEKNI NÚM.
VERUR	BLAÐ
KWÁRÐ	FHM BL.
FRÁMUN	TEKNI NÚM.
REFRANKJAN	VIÐ
ÖSK 8/1	

Skýringar á lokaflátti
Legend

Raforkulframleiðsla
Electric Power Generation

Löngvalstraframléiðsla
Reactive Power Generation

Spenna í pu
Voltage in pu

Horn spennunnis í gráðum
Voltage angle in degrees

Rönnulíðslá í MW
Active power flow in MW

Löngvalíðslá í MVAR
Reactive power flow in MVAR

Einvöðspennir
Autotransformer

Spennir
Transformer

Spennuhúttali í pu
Tap setting in pu

Alagsbrástakliðir
Tap changing under load

Þöfnunarkapítal
Capacitor bank

Þyrskostlyfti þöfnunarkapítal
Static var system

Series capacitor

Alag í MW og MVAR
Load in MW and MVAR



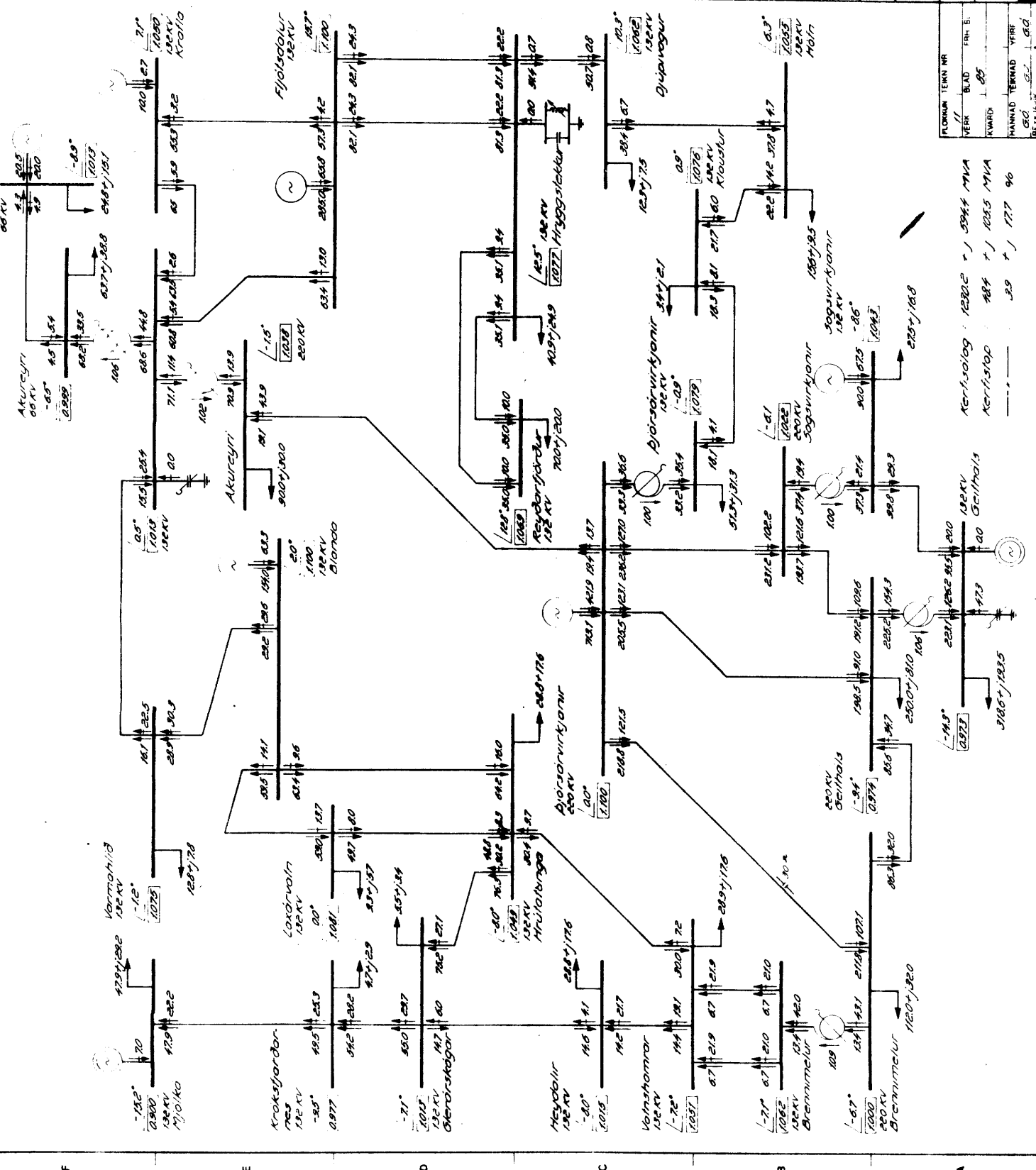
Alhugusemdir:
Krafta = 10 MW
Eðlilegt rekstrarástand



VIRKJUNARLEIÐIR TIL ALDAMÓTA
Hydro - power expansion alternatives

VIRKJUNARLEIÐ :	03	ÁR :	1995
Expansion alternative :		Year :	
NY STÖRÐJÁ :	156	Reykjavíkurbær :	70 MW
New power intensive industry :		Spennistöðir :	90 MW
		Þröngumálur :	70 MW
		Geitfells :	90 MW

Rafhönnun
Annex 12 940 0432



FLÓTTA TERN NÚM	
VER	BLAÐ
ÁMÁR	ÁR 51
ÞANNAÐ TERNAD	VER
REYKJAVÍK	GE
GEITFELLS	GE
2003	GE

Kerfiálag : 1280.2 + j 594.4 MVA
Kerfiálag : 98.4 + j 103.5 MVA

3.9 + j 17.7 96

192KV
80 Geitfells

192KV
80 Geitfells

192KV
80 Geitfells

192KV
80 Geitfells

192KV
80 Geitfells