Skýrslur, tilkynningar, upplýsingar og ýmiss fróðleikur um

ORKUMÁL

frá

RAFORKUMÁLASTJÓRA

Nr. 12

Maí 1965

EFNI

1 Raforkuver landsins 1964

2 Orkuvinnsla 1. ársfjórðungs 1965

3 Some Information about Iceland
its Water Resources and Energy Potential

E F N I

TÖFLUR

1.0 Afl, mesta álag og orkuvinnsla almenningsrafstöðva 1964
1.1 Afl, mesta álag og orkuvinnsla varmaaflsstöðva 1964
1.2 Mesta mánaðarlegt álag almenningsrafstöðva 1964
1.3 Afl og orkuvinnsla eftir landshlutum 1964
1.31 Afl og orkuvinnsla á Suðvesturlandi 1964
1.32 Afl og orkuvinnsla á Norðvesturlandi 1964
1.33 Afl og orkuvinnsla á Norðurlandi 1964
1.34 Afl og orkuvinnsla á Austurlandi 1964
1.41 Orkuvinnsla á Suðvesturlandi 1960-1964
1.42 Orkuvinnsla á Norðvesturlandi 1960-1964
1.43 Orkuvinnsla á Norðurlandi 1960-1964
1.44 Orkuvinnsla á Austurlandi 1960-1964
1.5 Stórnotkun og almenn notkun raforku 1960-1964
1.6 Almenn raforkunotkun eftir ársfjórðungum 1958-1964
1.7 Orkuvinnsla og stórnotkun á Suðvesturlandi 1960-1964
1.8 Rafstöðvar sundurliðaðar eftir eigendum 1964
1.9 Einkastöðvar 1964
1.91 Einkastöðvar skóla, félagsheimila o. þ. h.
1.92 Einkastöðvar sveitabýla
1.93 Einkastöðvar atvinnufyrirtækja í sýslum
1.94 Einkastöðvar atvinnufyrirtækja í bæjum

2.1 Héraðsrafmagnsveitur ríkisins : raflýst býli 1959-1964
2.2 Orkukaup og orkuvinnsla Rafmagnsveitna ríkisins 1964
2.3 Orkusala Rafmagnsveitna ríkisins 1964

3.1 Mánaðarleg orkuvinnsla fjórða ársfjórðung 1964
3.2 Mánaðarleg orkuvinnsla fyrsta ársfjórðung 1965
3.3 Mánaðarleg orkuvinnsla og stórnotkun á Suðvesturlandi fjórða ársfjórðung 1964
3.4 Mánaðarleg orkuvinnsla og stórnotkun á Suðvesturlandi fyrsta ársfjórðung 1965

MYNDIR

1. Raforkuvirki á Íslandi 1964
2. Mánaðarleg orkuvinnsla almenningsrafstöðva 1953-1964
3. Hlutfallsleg mánaðarleg vinnsluaukning frá ári til árs 1953-1964
4. Afl og vinnsla almenningsrafstöðva 1904 - 1964
5. Rafmagnsveitur ríkisins: Háspennulínur 1945 - 1964

GREIN

1. Some Information about Iceland, its Water Resources and Energy Potential

ORKUMÁL No. 12

THE STATE ELECTRICITY AUTHORITY
Reykjavík - Iceland

CONTENTS

TABLES

1.0 Public Power Plants in 1964
1.1 Thermal Power Plants in 1964
1.2 Monthly Maximum Load in 1964
1.3 Power Plants according to Areas 1964
1.31 Installed Capacity and Generation in the South West 1964
1.32 Installed Capacity and Generation in the North West 1964
1.33 Installed Capacity and Generation in the North 1964
1.34 Installed Capacity and Generation in the East 1964
1.41 Generation in the South West 1960-1964
1.42 Generation in the North West 1960-1964
1.43 Generation in the North 1960-1964
1.44 Generation in the East 1960-1964
1.5 Special Load and General Load of Electricity 1960-1964
1.6 General Load of Electricity 1958-1964
1.7 Generation and Special Load in the South West 1960-1964
1.8 Ownership of Public Plants in 1964
1.9 Private Power Plants in 1964
1.91 Private Power Plants: Schools, etc.
1.92 Private Power Plants: Farms
1.93 Private Power Plants: Industrial and other Commercial Undertakings in Countries
1.94 Private Power Plants: Industrial and other Commercial Undertakings in Towns

2.1 The State Electric Utilities: Electrified Farms 1959-1964
2.2 The State Electric Power Works: Generation and Purchases of Electricity 1964
2.3 The State Electric Power Works: Bulk Sales of Electricity 1964

3.1 Monthly Generation of Electricity IV. Quarter 1964
3.2 Monthly Generation of Electricity I. Quarter 1965
3.3 Monthly Generation of Electricity in S. W. Iceland, IV. Quarter 1964
3.4 Monthly Generation of Electricity in S. W. Iceland, I. Quarter 1965

EXHIBITS

1. Power Plants, Transmission Lines and Main Substations, 1964
2. Monthly Generation of Electricity, 1953-1964
3. Monthly Generation of Electricity, % increases from year to year, 1953-1964
4. Installed Capacity and Generation of Electricity 1904-1964
5. The State Electric Power Works: High Voltage Transmission Lines 1945-1964

ARTICLE

1. Some Information about Iceland, its Water Resources and Energy Potential

RAFORKUVER LANDSINS 1964

AFL

Í árslok 1964 var uppsett afl allra almenningsrafstöðva landsins komið upp í 149 258 kW og hafði aukizt um 2 643 kW á árinu eða um 1, 8%.

Afl vatnsrafstöðva var alls 122 678 kW eða 82, 2%. Eina virkjunin, sem jók afl sitt, var Þverárvirkjun við Hólmavík. En þar var áin endanlega fullvirkjuð. Alls eru þar nú virkjuð 1 736 kW, en hafði áður verið 560 kW. Gamla Glerárstöðin á Akureyri, 200 kW, er ekki lengur starfrækt og hefur því verið afskráð.

Margar dísilstöðvar eru starfræktar um land allt, bæði sem varastöðvar og svo sem aðalstöðvar í þeim héruðum, er ekki hafa ennþá verið tengd við rafmagnskerfi vatnsaflsstöðvanna. Að tiltölu eru dísilstöðvarnar flestar og stærstar á Austurlandi. Dísilstöðvarnar juku afl sitt alls um 1 667 kW eða 6, 7%. Aðallega voru aukningar þessar á Norðaustur- og Austurlandi. Þrjár stöðvar, Raufarhöfn, Vopnafjörður og Neskaupstaður, voru með nær alla aukninguna eða 1 445 kW. Seint á árinu var 60 kW dísilstöð sett upp í Grímsey, en þar hafði ekki áður verið starfrækt almenningsrafstöð.

ORKUVINNSLA

Orkuvinnslan á árinu 1964 nam alls 665 656 MWh og hafði aukizt um 3, 9% frá fyrra ári. 98, 1% orkunnar var unnin með vatnsafli en 1, 9 % með eldsneyti.

Um orkunotkunina er það helzt að segja, að almenn notkun, þ. e. a. s. verg orkuvinnsla að frádreginni orkunotkun Áburðarverksmiðjunnar, Sementsverksmiðjunnar og Keflavíkurflugvallar, varð alls 468 815 MWh og hafði aukizt um 4, 2% frá fyrra ári. Stórnotkun varð alls 196 870 MWh eða 29, 6 % af allri orkuframleiðslu landsins og hafði aukizt um 3, 3 %; þar af óx notkun Áburðarverksmiðjunnar um 4, 1 %, notkun Sementsverksmiðjunnar um 0, 2 % og notkun Keflavíkurflugvallar um 1, 6 %.

Meðalaukning síðustu 5 og 10 ára hefur verið sem hér segir :

	Vinnsla	Stórnotkun	Almenn notkun
10 ára aukning 1954-1964	%	%	%
Meðaltal	7, 1	10, 0	6, 7
Vegið meðaltal	6, 3	5, 7	7, 2
5 ára aukning 1959-1964			
Meðaltal	6, 6	10, 1	5, 6
Vegið meðaltal	5, 7	3, 3	6, 1

Um 80% allrar orkunnar er unnin í orkuverum samtengda kerfisins á Suðvesturlandi. Eftirfarandi tafla sýnir orkuvinnslu hinna ýmsu orkuvera landsins í hundraðstölu af heildarorkuvinnslu hvers árs, 1960-1964.

Stöðvar	1960 %	1961 %	1962 %	1963 %	1964 %	Meðaltal %
Sog	74,6	75,2	74,2	75,4	75,1	74,9
Elliðaár	1,3	0,9	0,8	0,8	0,8	0,9
Andakíll	4,5	4,2	4,5	4,1	4,0	4,2
Rjúkandi	0,7	0,6	0,7	0,7	0,7	0,7
Mjólká	1,5	1,9	1,6	1,5	1,4	1,6
Reiðhjalli	0,2	0,2	0,2	0,3	0,3	0,2
Fossá-& Nónh. vatn	0,5	0,5	0,6	0,5	0,6	0,5
Þverá	0,3	0,3	0,3	0,3	0,3	0,3
Laxárvatn	0,4	0,4	0,5	0,5	0,5	0,5
Gönguskarðsá	0,7	0,8	0,8	0,7	0,8	0,8
Skeiðsfoss	1,6	1,6	1,8	1,5	1,4	1,6
Laxá	9,7	9,6	10,1	10,1	9,9	9,9
Grímsá	1,3	1,4	1,2	1,4	1,8	1,4
Aðrar	0,3	0,3	0,5	0,4	0,5	0,4
Alls vatn	97,6	97,9	97,8	98,2	98,1	97,9
Elliðaár, varastöð	0,3	0,0	0,0	0,1	0,0	0,1
Vestmannaeyjar	1,0	1,0	0,8	0,1	0,2	0,6
Aðrar	1,1	1,1	1,4	1,6	1,7	1,4
Alls varmi	2,4	2,1	2,2	1,8	1,9	2,1
Samtals	100,0	100,0	100,0	100,0	100,0	100,0
Þar af samtengt S.V.land	81,7	81,3	80,3	80,5	80,1	80,8

Stærsti framleiðandinn af raforku var Sogsvirkjunin með 499 618 MWh eða 75,2%. Næst komu svo Laxárvirkjunin með 66 062 MWh (9,8%), Rafmagnsveitur ríkisins með 51 869 MWh (7,8%) og Andakílsárvirkjun með 26 960 MWh (4,1%). Aðrir framleiðendur voru sem hér segir : Rafveita Siglufjarðar (Skeiðsfoss - 9.229 MWh), Rafmagnsveita Reykjavíkur (Elliðaárstöðvar - 5 546 MWh), Rafveita Ísafjarðar (Fossav. & Nónh. v. - 3 771 MWh), Rafveita Vestmannaeyja (1 554 MWh), Rafveita Reyðarfjarðar (Búðará - 1 018 MWh) og Rafveita Patreksfjarðar (29 MWh).

Af aðiljum þessum hafa Rafmagnsveitur ríkisins talsverða sérstöðu, því fyrir utan eigin framleiðslu, kaupa þær að venju talsvert mikið magn af orku, sem þær svo selja ýmsum rafveitum um land allt. Hefur það fallið Rafmagnsveitum ríkisins í skaut að sjá stórum hlutum landsins fyrir orku. Hafa þær í því augnamiði byggt tæpra 3 500 kílómetra langt háspennukerfi um land allt.

Á árinu seldu Rafmagnsveitur ríkisins 176 318 MWh (rúman fjórðung allrar orku landsins) til eftirtaldra aðilja: 76 584 MWh til Héraðsrafmagnsveitna ríkisins, 54 263 MWh til 16 rafveitna bæjar- og sveitarfélaga, 37 314 MWh til Keflavíkurflugvallar og 8 157 MWh til Andakílsárvirkjunar.

EINKASTÖÐVAR

Alls eru 1 080 einkastöðvar dreifðar um land allt með alls 20 461 kW í uppsettu afli eða 19 kW á stöð að meðaltali. Flestar eru stöðvarnar í eigu 1 054 sveitabýla eða 874 stöðvar með alls 5 917 kW eða 6,8 kW á stöð að meðaltali (5,6 kW á býli). 342 stöðvanna eru vatnsaflsstöðvar.

Annars eru stærstu stöðvarnar í eigu atvinnufyrirtækja, aðallega síldarverksmiðja og frystihúsa. Margar eru reknar sem hreinar varastöðvar.

Engar mælingar eru almennt til um orkuvinnslu einkastöðva, þó er talið, að þær framleiði um 15 000 MWh á ári.

HELZTU FRAMKVÆMDIR

Helztu framkvæmdir í raforkumálum voru sem hér segir:

Þingvellir voru tengdir við Sogskerfið í júlí 1964. 500 kVA aðveitustöð var byggð við Jórukleif í Grafningi og 11 kV lína lögð til Þingvalla.

Lokið var við virkjun Þverár við Hólmavík og er virkjunin nú 1 736 kW að stærð og hafði verið aukin um 1 176 kW eða 210%. En svo sem kunnugt er, sér Þverárvirkjun Hólmavík, Drangsnesi og næstu sveitum fyrir rafmagni, ennfremur eru Reykhólar á Barðaströnd tengdir við virkjunina og undirbúningur er hafinn að því að tengja Saurbæ í Dölum við virkjunina.

Hólar í Hjaltadal og Hofsós voru tengdir við orkuveitusvæði Laxárvatns og Gönguskarðsár. Á Norðausturlandi voru Kópasker og Raufarhöfn samtengd. Ennfremur var sett upp rafstöð í Grímsey, og tók hún til starfa í nóvember.

Á Austurlandi voru dísilstöðvarnar á Vopnafirði og Neskaupstað stækkaðar talsvert.

RAFVÆDD BÝLI

Rafvædd býli á vegum Héraðsrafmagnsveitna ríkisins jukust um 196 á árinu, 8 þeirra höfðu þó áður verið rafvædd af Rafmagnsveitu Reykjavíkur. Eru því alls 2 676 býli rafvædd af Héraðsrafmagnsveitum ríkisins, en 235 af öðrum rafveitum. 1 054 býli hafa eigin rafstöðvar. Alls eru því 3 965 býli rafvædd eða 76,3%, en talið er að 5 200 býli séu í byggð á landinu.

ORKUVINNSLA 1. ÁRSFJÓRÐUNG 1965

Orkuvinnsla 1. ársfjórðungs 1965 nam alls 179 238 MWh og jafngilti það 1,0% aukningu frá 1. ársfjórðungi fyrra árs. Heildarvinnsla vatnsaflsstöðva minnkaði á sama tíma um 0,7%, en vinnsla dísilstöðva óx um 116,1%. Sé nánar litið á tölurnar kemur hins vegar í ljós, að um talsvert mikla aukningu er að ræða á öllum 20 orkuveitusvæðum landsins, að Sogssvæðinu einu undanteknu, en þar minnkaði orkuframleiðslan um 1,3%. En að frádreginni stórnotkun (Áburðarverksmiðjan, Sementsverksmiðjan og Keflavíkurflugvöllur), þá er bæði Sogssvæðið og landið allt með 10,6% aukningu í orkuvinnslu. Stórnotkun raforku hefur sem sé dregizt all mjög saman á nefndu tímabili eða um 23,3%. Áburðarverksmiðjan notaði 38 670 MWh á ársfjórðungnum en 50 419 MWh á sama tíma 1964, og samsvarar þetta 31,2% samdrætti í orkunotkun. En Sogsvirkjunin hefur takmarkað mjög orkusölu til Áburðarverksmiðjunnar, þar sem afgangsorka sú, sem verksmiðjan hefur fengið, er ekki lengur fyrir hendi í sama mæli og áður fyrr.

Eftirfarandi tafla sýnir orkuvinnslu hinna ýmsu orkuveitusvæða og viðkomandi aukningu :

Orkusvæði	1. ársfjórðungur 1965 MWh	1964 MWh	Aukning %
Sogssvæði [1]	141 689	143 591	- 1,3
Rjúkandi	1 498	1 312	14,2
Stykkishólmur	481	338	42,4
Suðvesturland alls [2]	143 668	145 241	- 1,1
Búðardalur	111	102	8,8
Vestfirðir	4 435	4 212	5,3
Þverá	648	571	13,5
Norðvesturland alls	5 194	4 885	6,3
Laxárvatn - Gönguskarðsá	2 730	2 468	10,6
Skeiðsfoss - Garðsá	2 634	2 467	6,8
Laxársvæði	19 834	18 070	9,8
Grímsey	33	-	.
Kópasker - Raufarhöfn	384	283	35,8
Þórshöfn	122	104	17,3
Norðurland alls	25 737	23 392	10,0
Bakkafjörður	20	18	11,1
Vopnafjörður	236	192	22,9
Bakkagerði	49	45	8,9
Grímsársvæði	3 626	3 031	19,6
Stöðvarfjörður	93	79	17,7
Breiðdalsvík	48	43	11,6
Djúpivogur	95	94	1,1
Höfn í Hornafirði	472	440	7,3
Austurland alls	4 639	3 942	17,7
Landið alls [3]	179 238	177 460	1,0
1) Sogssvæði án stórnotkunar	103 019	93 172	10,6
2) Suðvesturland án stórnotkunar	104 998	94 822	10,7
3) Landið allt án stórnotkunar	140 568	127 041	10,6

Svo sem kunnugt er hefur athafnalíf verið óvenju gróskumikið á Norðaustur- og Austurlandi. Kemur þetta glögglega fram í orkuvinnslunni. Kópasker-Raufarhöfn er t. d. með 35,8% aukningu í vinnslu, Vopnafjörður 22,9% og Grímsársvæði 19,6%, svo helztu dæmi séu nefnd. Annars er ekki úr vegi að líta nokkru nánar á sjálft Grímsársvæðið.

	1965 Jan. MWh	Febr. MWh	Marz MWh	Alls MWh	%	1964 Jan. MWh	Febr. MWh	Marz MWh	Alls MWh	%	Aukn. %
Grímsá	482	729	444	1 655	45,5	903	725	846	2 474	81,6	-33,1
Búðará + Fjarðará	117	125	124	366	10,1	121	135	91	347	11,5	5,5
Vatn	599	854	568	2 021	55,6	1 024	860	937	2 821	93,1	- 28,4
Dísill	934	136	535	1 605	44,4	47	157	6	210	6,9	664,0
Samtals	1 533	990	1 103	3 626	100,0	1 071	1 017	943	3 031	100,0	19,6

Sem sjá má hefur dísilorkuvinnsla aukist margfaldlega, en vinnsla Grímsár minnkað um þriðjung, og er nú svo komið, að þáttur Grímsár nær ekki fullum helmingi í orkuvinnslu svæðisins.

Rútur Halldórsson

TAFLA 1, 0

AFL, MESTA ÁLAG OG ORKUVINNSLA

PUBLIC POWER PLANTS

Nr.	Stöðvar/Plants	Ástimplað afl Installed capacity 31.12.1964		Mesta álag á árinu Maximum load	Orkuvinnsla/				
					Jan.	Febr.	Marz	Apríl	Maí
		kW	%	kW	MWh	MWh	MWh	MWh	MWh
	VATNSAFL/HYDRO:								
1.1.	Steingrímsstöð	26 400	17,7	27 400	12 200	11 566	11 497	11 331	11 308
2.	Írafoss	47 800	32,0	44 800	23 979	22 170	22 210	21 460	20 367
3.	Ljósafoss	14 600	9,8	16 200	10 109	9 382	9 549	9 390	8 846
	(Sogið)	(88 800)	(59,5)	(88 400)	(46 288)	(43 118)	(43 256)	(42 181)	(40 521)
4.	Elliðaár	3 160	2,1	2 100	994	1 023	874	610	328
5.	Andakíll	3 520	2,3	3 800	2 842	2 395	2 550	2 422	1 949
6.	Rjúkandi	840	0,6	960	372	386	484	464	313
7.	Mjólká	2 400	1,6	2 505	917	879	822	895	633
8.	Reiðhjalli	400	0,3	412	211	192	218	206	167
9.	Fossav.-og Nónh.vatn	1 160	0,8	...	296	286	370	286	262
10.	Þverá	1 736	1,2	450	201	188	182	163	165
11.	Laxárvatn	464	0,3	490	299	281	287	264	254
12.	Gönguskarðsá	1 064	0,7	1 200	508	448	439	417	398
13.	Skeiðsfoss	3 200	2,1	2 690	821	712	621	660	629
14.	Laxá	12 560	8,4	12 100	6 679	5 910	5 461	5 227	4 511
15.	Grímsá	2 800	1,9	3 282	903	725	846	753	674
16.	Aðrar/Others (3)	574	0,4	.	218	240	202	261	230
	Alls/Total	122 678	82,2	.	61 549	56 783	56 612	54 809	51 034
	GUFUAFL/STEAM:								
2.1.	Elliðaár	7 500	5,0	7 800	35	-	-	-	-
	DÍSILAFL/DIESEL:								
2.	Vestmannaeyjar	3 927	2,6	2 500	62	58	96	54	18
3.	Aðrar/Others (30)	15 153	10,2	.	808	806	651	602	535
	Alls/Total	26 580	17,8	.	905	864	747	656	553
	Samtals/Grand Total	149 258	100,0	.	62 454	57 647	57 359	55 465	51 587
					9,4	8,7	8,6	8,3	7,7

ALMENNINGSRAFSTÖÐVA 1964

IN 1964

Generation 1964									Aukn. vinnslu/ Increase 1963/64	Nýting-artími/ Running hours	Nr.
Júní	Júlí	Ágúst	Sept.	Okt.	Nóv.	Des.	Alls/Total				
MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh	%	%	h	
10 010	10 667	9 531	9 855	11 607	12 535	12 530	134 637	20,2	3,6	4 914	1.1.
18 867	18 430	20 491	18 562	21 910	23 220	23 119	254 785	38,3	4,1	5 687	2.
8 722	8 623	7 124	8 462	9 880	9 847	10 262	110 196	16,6	1,8	6 802	3.
(37 599)	(37 720)	(37 146)	(36 879)	(43 397)	(45 602)	(45 911)	(499 618)	(75,1)	(3,5)	(5 652)	
-	-	-	53	322	648	656	5 508	0,8	14,4	2 622	4.
1 608	2 152	2 033	1 654	2 349	2 665	2 341	26 960	4,0	3,1	7 095	5.
264	327	337	355	412	442	393	4 549	0,7	5,3	4 549	6.
606	768	770	710	746	816	1 083	9 645	1,4	1,2	3 850	7.
-	-	89	143	198	237	224	1 885	0,3	3,1	4 575	8.
334	377	313	325	347	341	226	3 763	0,6	10,8	...	9.
138	154	194	183	225	192	246	2 231	0,3	8,8	4 957	10.
214	231	250	284	301	291	307	3 263	0,5	-0,1	6 659	11.
405	453	423	505	567	545	577	5 685	0,8	23,5	4 737	12.
879	875	751	776	780	800	925	9 229	1,4	-1,4	3 430	13.
4 037	4 420	4 787	5 223	5 994	6 368	7 365	65 982	9,9	1,6	5 453	14.
902	1 466	1 211	1 480	1 460	766	500	11 686	1,8	31,2	3 560	15.
266	317	304	313	261	224	212	3 048	0,5	5,2	.	16.
47 252	49 260	48 608	48 883	57 359	59 937	60 966	653 052	98,1	3,8	.	
-	-	-	-	-	-	3	38	0,0	94,4	5	2.1.
13	418	704	19	26	30	56	1 554	0,2	221,7	621	2.
648	844	832	894	1 138	1 290	1 964	11 012	1,7	5,2	.	
661	1 262	1 536	913	1 164	1 320	2 023	12 604	1,9	8,2	.	
47 913	50 522	50 144	49 796	58 523	61 257	62 989	665 656	100,0	3,9	.	
7,2	7,6	7,5	7,5	8,8	9,2	9,5	100,0	%			

TAFLA 1, 1

AFL, MESTA ÁLAG OG ORKUVINNSLA VARMAAFLSSTÖÐVA 1964

THERMAL POWER PLANTS IN 1964

Nr.	Stöðvar / Plants	Ástimplað afl í árslok Installed capacity	Mesta álag á árinu Max. Load	Orkuvinnsla / Generation 1964												
				Jan.	Feb.	Marz	Apr.	Maí	Júní	Júlí	Ág.	Sept.	Okt.	Nóv.	Des.	Alls/Total
		kW	kW	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh	MWh
	DÍSILL/DIESEL															
1.	Vík í Mýrdal	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.	Vestmannaeyjar	3 927	2 500	62	58	96	54	18	13	418	704	19	26	30	56	1 544
3.	Ólafsvík	1 200	...	5	17	48	58	7	1	4	9	5	30	33	31	248
4.	Stykkishólmur	675	484	111	113	114	79	101	45	69	103	109	114	142	170	1 270
5.	Búðardalur	350	169	36	33	33	30	29	29	33	33	38	49	36	61	440
6.	Patreksfjörður	480	480*	3	4	4	-	-	-	-	-	9	3	3	3	29
7.	Bíldudalur	289	...	2	2	3	4	1	-	0	0	5	0	7	1	25
8.	Flateyri	234	84	1	1	0	0	-	-	0	-	0	0	3	1	6
9.	Suðureyri	128	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.	Ísafjörður	890	...	1	-	-	1	-	-	-	2	-	-	3	1	8
11.	Súðavík	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.	Skagaströnd	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.	Sauðárkrókur	1 200	...	134	55	17	21	14	21	30	55	58	96	105	192	798
14.	Hofsós	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.	Grímsey	60	...	-	-	-	-	-	-	-	-	-	-	10	12	22
16.	Hrísey	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.	Akureyri	2 000	1 925	5	15	-	-	-	-	-	-	-	-	25	35	80
18.	Kópasker	110	60	13	17	17	12	14	10	13	12	16	21	22	12	179
19.	Raufarhöfn	820	436	87	73	76	83	97	132	195	199	159	127	114	133	1 475
20.	Þórshöfn	420	185*	36	33	35	33	33	30	43	48	53	61	42	49	496
21.	Bakkafjörður	75	28	6	6	6	6	6	7	8	8	8	9	6	8	84
22.	Vopnafjörður	1 230	666	70	62	60	58	54	203	246	162	183	229	98	91	1 516
23.	Bakkagerði	160	78	18	14	13	12	11	10	14	17	17	24	18	22	190
24.	Seyðisfjörður	260	280	2	6	0	1	1	1	2	1	3	5	13	44	79
25.	Neskaupstaður	2 200	1 830	43	146	6	-	1	7	20	21	39	154	352	836	1 625
26.	Reyðarfjörður	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.	Fáskrúðsfjörður	240	285*	2	5	-	-	0	3	5	1	4	14	29	64	127
28.	Stöðvarfjörður	162	62*	29	24	26	25	15	12	16	19	20	19	21	30	256
29.	Breiðdalsvík	130	...	15	14	14	12	11	9	8	9	10	9	9	10	130
30.	Djúpivogur	380	114	33	31	30	28	24	20	22	24	29	34	30	38	343
31.	Höfn í Hornafirði	675	531	156	135	149	139	116	108	116	109	129	140	169	120	1 586
	Alls / Total	19 080	.	870	864	747	656	553	661	1 262	1 536	913	1164	1320	2020	12 566
32.	Elliðaár, gufa/steam	7 500	7 800	35	-	-	-	-	-	-	-	-	-	-	3	38
	Samtals / Grand Total	26 580	.	905	864	747	656	553	661	1262	1536	913	1164	1320	2 023	12 604
				7,2	6,9	5,9	5,2	4,4	5,2	10,0	12,2	7,2	9,2	10,5	16,1	100,0%

TAFLA 1, 2

MESTA MÁNAÐARLEGT ÁLAG ALMENNINGSRAFSTÖÐVA 1964

MONTHLY MAXIMUM LOAD IN 1964

Stöðvar/Plants	Jan.	Feb.	Marz	Apríl	Maí	Júní	Júlí	Ágúst	Sept.	Okt.	Nóv.	Des.	Árið/ Year
	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
VATNSAFL/HYDRO													
Steingrímsstöð	27 000	27 000	26 500	26 900	27 200	27 000	26 900	26 000	26 400	27 100	26 800	27 400	27 400
Írafoss	44 800	44 000	43 400	44 000	44 000	44 200	37 300	44 300	33 300	35 700	44 500	43 600	44 800
Ljósafoss	16 000	15 900	15 750	16 050	15 550	15 650	15 700	15 950	15 900	15 650	15 700	16 200	16 200
Elliðaár	2 100	2 000	1 800	1 400	1 350	-	-	-	500	1 350	1 400	1 400	2 100
Andakíll	3 800*	3 800*	3 800*	3 800 *	3 800*	3 800*	3 800*	3 800*	3 800*	3 800*	3 800*	3 800*	3 800
Rjúkandi	848	889	954	960	880	870	930	915	900	883	899	925	960
Mjólká	2 473	2 489	2 473	2 403	2 457	2 360	2 440	2 413	2 403	2 386	2 505	2 500	2 505
Reiðhjalli	412	410	410	408	407	...	...	...	410	410	410	400	412
Fossav. & Nónh. vatn	...	...	...	...	...	...	...	...	...	...	...	...	...
Þverá	450	440	440	440	440	450	450	...	...	...	...	...	450*
Laxárvatn	490	470	490	465	460	470	470	480	480	480	490	490	490
Gönguskarðsá	1 111	1 118	1 103	1 110	1 200	1 080	1 133	1 133	1 125	1 138	1 180	1 073	1 200
Skeiðsfoss	2 500	2 300	2 030	2 130	2 190	2 690	2 470	2 430	2 500	2 310	2 310	2 390	2 690
Laxá	12 000	11 600	10 300	10 700	10 600	10 600	10 400	10 400	10 800	12 000	11 700	12 100	12 100
Grímsá	2 670	2 830	2 830	2 670	2 430	3 104	3 183	3 144	3 282	3 262	2 870	2 740	3 282
Aðrar/Others	.	.	.	.	.	.	.	.	.	.	.	.	.
Alls/Total	.	.	.	.	.	.	.	.	.	.	.	.	.
GUFUAFL/STEAM													
Elliðaár	7 800	-	-	-	-	-	-	-	-	-	-	1 400	7 800
DÍSILAFL/DIESEL													
Vestmannaeyjar	2 300	1 050	1 250	1 130	750	700	2 400	2 500	1 380	1 200	810	2 080	2 500
Aðrar/Others	.	.	.	.	.	.	.	.	.	.	.	.	.
Alls/Total	.	.	.	.	.	.	.	.	.	.	.	.	.
Samtals/ Grand Total	.	.	.	.	.	.	.	.	.	.	.	.	.

TAFLA 1,3

AFL OG ORKUVINNSLA

PUBLIC POWER PLANTS

Nr.	Landshlutar/Areas	Íbúar/ Population		Ástimplað afl/ Installed capacity					
				Vatn/ Hydro	Varmi/ Thermal	Alls/Total		Aukn./ Increase 63/64	kW/íbúa
		1000	%	kW	kW	kW	%	%	kW/capita
0	1	2	3	4	5	6	7	8	9
1.	Suðvesturland/ The South West	133	71,1	96 320	13 552	109 872	73,6	-	0,8
2.	Norðvesturland/The North West	12	6,4	5 696	2 401	8 097	5,4	19,4	0,7
3.	Norðurland/ The North	31	16,6	17 462	5 065	22 527	15,1	- 0,2	0,7
4.	Austurland/ The East	11	5,9	3 200	5 562	8 762	5,9	18,8	0,8
	Samtals/Grand total	187 [1]	100,0	122 678	26 580	149 258	100,0	1,8	0,8

1) Um 92% þjóðarinnar hafa rafmagn frá almenningsrafstöðvum, en 3% frá einkarafstöðvum; 5% eru án rafmagns

Ca. 92% of the population have access to electricity from public utilities, 3% from private plants; 5% are without access to electricity.

2) Orkukaup frá síldarverksm./
Purchase of electricity from auto-producers
Siglufjörður 29 MWh

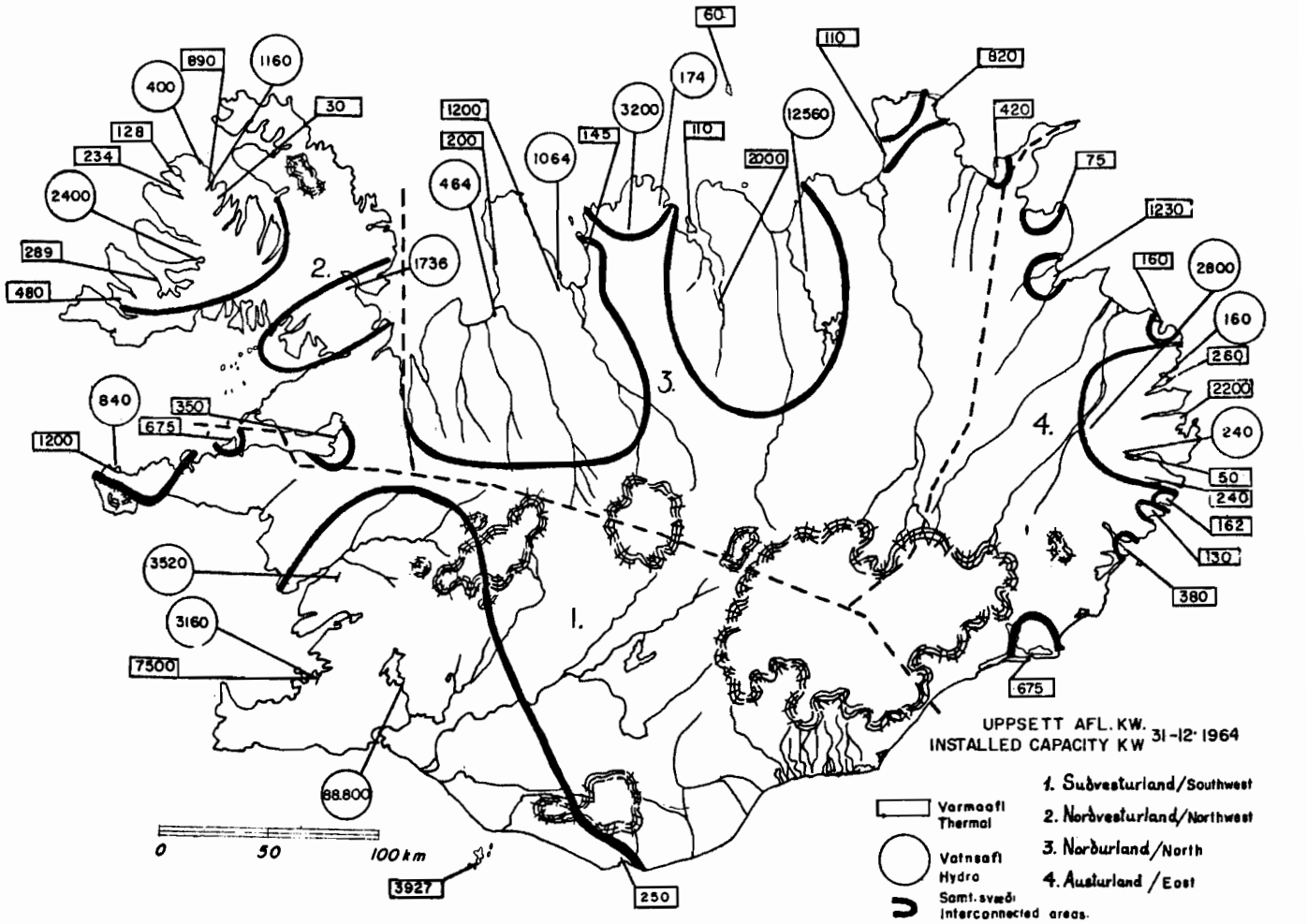
3) Stórnotkun/ Special load	MWh	% af heild / % of total
Áburðarverksmiðjan/Fertilizer plant	142 469	21,4
Sementsverksmiðjan/Cement plant	13 356	2,0
Keflavíkurflugvöllur/ Keflavík Airport	41 045	6,2
(Flutningstöp innifalin/Transmission losses included)		
Alls/Total	196 870	29,6

4) Heildarnotkun/ Total gross consumption
kWh/íbúa kWh/capita 3 560

EFTIR LANDSHLUTUM 1964

ACCORDING TO AREAS

Orkuvinnsla/Generation					Frá einkast. From Pr.Plants	Orka alls Total Energy	- Stórnotkun Less Special Load	Alm. notkun/ Ord. Load			
Vatn/ Hydro	Varmi/ Thermal	Alls/Total		Aukn./ Increase 63/64						Aukn. Incr. 63/64	kWh/íbúa
MWh	MWh	MWh	%	%	MWh	MWh	MWh	MWh	%	%	kWh/capita
10	11	12	13	14	15	16	17	18	19	20	21
536 635	3 110	539 745	81,1	3,6	-	539 745	196 870	342 875	73,2	3,8	2 578
17 524	508	18 032	2,7	4,5	-	18 032	-	18 032	3,8	4,5	1 503
85 466	3 050	88 516	13,3	2,4	29	88 545	-	88 545	18,9	1,5	2 856
13 427	5 936	19 363	2,9	20,5	-	19 363	-	19 363	4,1	20,5	1 760
653 052	12 604	665 656	100,0	3,9	29 [2]	665 685	196 870 [3]	468 815	100,0	4,0	2 507 [4]



TAFLA 1, 31

AFL OG ORKUVINNSLA Á SUÐVESTURLANDI 1964

INSTALLED CAPACITY AND GENERATION IN THE SOUTH WEST

Nr.	Rafstöðvar/Plants	Eigendur Ownership	Ástimplað afl/ Installed capacity/kW			Orkuvinnsla/Generation/MWh		
			Vatn/ Hydro	Varmi/ Thermal	Alls/ Total	Vatn/ Hydro	Varmi/ Thermal	Alls/ Total
0	1	2	3	4	5	6	7	8
1.	Steingrímsstöð	Ríki og bær [3]	26 400	-	26 400	134 637	-	134 637
2.	Írafoss	"	47 800	-	47 800	254 785	-	254 785
3.	Ljósafoss	"	14 600	-	14 600	110 196	-	110 196
4.	Elliðaár	Bæjarfélag [3]	3 160	-	3 160	5 508	-	5 508
5.	Elliðaár, varastöð	"	-	7 500	7 500	-	38	38
6.	Vestmannaeyjar	"	-	3 927	3 927	-	1 554	1 554
7.	Vík í Mýrdal	Rarik [1]	-	250	250	-	-	-
8.	Andakíll	Sveitarfélag [3]	3 520	-	3 520	26 960	-	26 960
	Samtengt/Interconnected		(95 480)	(11 677)	(107 157)	(532 086)	(1 592)	(533 678)
9.	Rjúkandi	Rarik [1]	840	-	840	4 549	-	4 549
10.	Ólafsvík	Rarik [1]	-	1 200	1 200	-	248	248
	Samtengt / Interconnected		(840)	(1 200)	(2 040)	(4 549)	(248)	(4 797)
11.	Stykkishólmur	Rarik [1]	-	675	675	-	1 270	1 270
	Samtals/Total		96 320	13 552	109 872	536 635	3 110	539 745
			87,7%	12,3%	100,0%	99,4%	0,6%	100,0%

1) State owned
2) State and municipally owned
3) Municipally owned

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1) Rarik = Rafmagnsveitur ríkisins
The State Electric Power Works

TAFLA 1, 32

AFL OG ORKUVINNSLA Á NORÐVESTURLANDI 1964

INSTALLED CAPACITY AND GENERATION IN THE NORTH WEST

Nr.	Rafstöðvar/Plants	Eigendur Ownership	Ástimplað afl/ Installed capacity/kW			Orkuvinnsla/Generation/MWh		
			Vatn/ Hydro	Varmi/ Thermal	Alls/ Total	Vatn/ Hydro	Varmi/ Thermal	Alls/ Total
0	1	2	3	4	5	6	7	8
1.	Búðardalur	Rarik [1]	-	350	350	-	440	440
2.	Patreksfjörður	Sveitar-félag [3]	-	480	480	-	29	29
3.	Bíldudalur	Rarik [1]	-	289	289	-	25	25
4.	Mjólká	"	2.400	-	2 400	9 645	-	9 645
5.	Flateyri	"	-	234	234	-	6	6
6.	Suðureyri	"	-	128	128	-	-	-
7.	Reiðhjalli	"	400	-	400	1.885	-	1.885
8.	Fossav. & Nónh. v.	Bæjar-félag [3]	1 160	-	1 160	3 763	-	3 763
9.	Ísafjörður	"	-	890	890	-	8	8
10.	Súðavík	Rarik [1]	-	30	30	-	-	-
	Alls samtengt/Interconnected		(3 960)	(2 051)	(6 011)	(15 293)	(68)	(15 361)
11.	Þverá	Rarik [1]	1 736	-	1 736	2 231	-	2 231
	Samtals/Total		5 696	2 401	8 097	17 524	508	18 032
			70,4%	29,6%	100,0%	97,2%	2,8%	100,0%

1) State owned
2) State and municipally owned
3) Municipally owned

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1) Rarik = Rafmagnsveitur ríkisins
The State Electric Power Works

TAFLA 1, 33

AFL OG ORKUVINNSLA Á NORÐURLANDI 1964

INSTALLED CAPACITY AND GENERATION IN THE NORTH

Nr.	Rafstöðvar/Plants	Eigendur Ownership	Ástimplað afl/ Installed capacity/kW			Orkuvinnsla/Generation/MWh		
			Vatn/ Hydro	Varmi/ Thermal	Alls/ Total	Vatn/ Hydro	Varmi/ Thermal	Alls/ Total
0	1	2	3	4	5	6	7	8
1.	Laxárvatn	Rarik [1]	464	-	464	3 263	-	3 263
2.	Skagaströnd	"	-	200	200	-	-	-
3.	Gönguskarðsá	"	1.064	-	1 064	5 685	-	5 685
4.	Sauðárkrókur	"	-	1.200	1.200	-	798	798
5.	Hofsós	"	-	145	145	-	-	-
	Alls samtengt/Interconnected		(1 528)	(1 545)	(3 073)	(8 948)	(798)	(9 746)
6.	Skeiðsfoss	Bæjarfélag [3]	3 200	-	3 200	9 229	-	9 229
7.	Garðsá	Rarik [1]	174	-	174	1 307	-	1 307
	Alls samtengt/Interconnected		(3 374)	-	(3 374)	(10 536)	-	(10 536)
8.	Grímsey	Rarik [1]		60	60	-	22	22
9.	Hrísey	"	-	110	110	-	-	-
10.	Akureyri	Ríki og bær [2]	-	2 000	2 000	-	80	80
11.	Laxá	"	12.560	-	12 560	65 982	-	65 982
	Alls samtengt/Interconnected		(12 560)	(2 110)	(14 670)	(65 982)	(80)	(66 062)
12.	Kópasker	Rarik [1]	-	110	110	-	179	179
13.	Raufarhöfn	"	-	820	820	-	1 475	1 475
14.	Þórshöfn	"	-	420	420	-	496	496
	Samtals/Total		17 462	5 065	22 527	85 466	3 050	88 516
			77, 6 %	22,4%	100,0%	96,6%	3, 4%	100,0%

1) State owned
2) State and municipally owned
3) Municipally owned

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1) Rarik = Rafmagnsveitur ríkisins
The State Electric Power Works

TAFLA 1, 34

AFL OG ORKUVINNSLA Á AUSTURLANDI 1964

INSTALLED CAPACITY AND GENERATION IN THE EAST

Nr.	Rafstöðvar/Plants	Eigendur Ownership	Ástimplað afl/ Installed capacity/kW			Orkuvinnsla/Generation/MWh		
			Vatn/ Hydro	Varmi/ Thermal	Alls/ Total	Vatn/ Hydro	Varmi/ Thermal	Alls/ Total
0	1	2	3	4	5	6	7	8
1.	Bakkafjörður	Rarik 1)	-	75	75	-	84	84
2.	Vopnafjörður	"	-	1 230	1 230	-	1 516	1 516
3.	Bakkagerði	"	-	160	160	-	190	190
4.	Fjarðará	"	160	-	160	723	-	723
5.	Seyðisfjörður	"	-	260	260	-	79	79
6.	Grímsá	"	2 800	-	2 800	11 686	-	11 686
7.	Neskaupstaður	"	-	2 200	2 200	-	1.625	1 625
8.	Búðará	Sveitar-félag 3)	240	-	240	1 018	-	1 018
9.	Reyðarfjörður	"	-	50	50	-	-	-
10.	Fáskrúðsfjörður	Rarik 1)	-	240	240	-	127	127
	Alls samtengt/Interconnected		(3 200)	(2 750)	(5 950)	(13 427)	(1 831)	(15 258)
11.	Stöðvarfjörður	Rarik 1)	-	162	162	-	256	256
12.	Breiðdalsvík	"	-	130	130	-	130	130
13.	Djúpivogur	"	-	380	380	-	343	343
14.	Höfn í Hornafirði	"	-	675	675	-	1 586	1 586
	Samtals/Total		3 200	5 562	8 762	13 427	5 936	19 363
			36,5%	63,5%	100,0%	69, 4%	30, 6%	100, 0%

1) State owned
2) State and municipally owned
3) Municipally owned

1) Rarik = Rafmagnsveitur ríkisins
The State Electric Power Works

TAFLA 1, 41

ORKUVINNSLA Á SUÐVESTURLANDI 1960-1964

GENERATION OF ELECTRICITY IN S. W. ICELAND 1960-1964

Stöðvar / Plants	Orkuvinnsla / Generation					Aukning / Increase			
	1960	1961	1962	1963	1964	60/61	61/62	62/63	63/64
	MWh	MWh	MWh	MWh	MWh	%	%	%	%
Sogssvæði									
Steingrímsstöð	94 286	123 856	126 818	129 979	134 637	31, 4	2, 4	2, 5	3, 6
Írafoss	209 747	215 479	220 426	244 665	254 785	2, 7	2, 3	11, 1	4, 1
Ljósafoss	96 109	103 546	102 705	108 238	110 196	7, 7	- 0, 8	5, 4	1, 8
Elliðaár	6 806	5 399	4 707	4 818	5 508	-20, 7	-12, 8	2, 4	14, 4
Andakíll	23 839	24 613	26 951	26 154	26 960	3, 2	9, 5	- 3, 0	3, 1
Alls vatn/Hydro	430 787	472 893	481 607	513 854	532 086	9, 9	1, 8	6, 7	3, 6
Elliðaár, varastöð	1 633	63	114	699	38	-96, 1	81, 0	513, 0	-94, 4
Vestmannaeyjar	5 568	5 649	4 934	483	1 554	1, 5	-12, 7	-90, 5	221, 7
Vík í Mýrdal	148	434	416	324	-	193, 2	- 4, 1	-22, 1	.
Alls varmi/Thermal	7 349	6 146	5 464	1 506	1 592	- 16, 4	-11, 1	-72, 6	5, 7
Alls samtengt/ Total Interconnected	438 136	479 039	487 071	515 360	533 678	9, 3	1, 7	5, 8	3, 6
Snæfellsnes									
Rjúkandi	3 589	3 695	4 158	4 320	4 549	3, 0	12, 5	3, 9	5, 3
Ólafsvík	51	341	76	119	248	560, 9	-77, 8	56, 5	108, 2
Alls samtengt	3 640	4 036	4 234	4 439	4 797	10, 9	4, 9	4, 9	8, 1
Stykkishólmur	1 080	1 300	950	1 090	1 270	20, 4	-26, 9	14, 7	16, 5
Alls Snæfellsnes	4 720	5 336	5 184	5 529	6 067	13, 0	- 0, 1	6, 7	9, 7
Samtals S.V. land	442 856	484 375	492 255	520 889	539 745	9, 4	1, 6	5, 8	3, 6
Vatn/Hydro %	98, 1	98, 4	98, 7	99, 5	99, 4				
Varmi/Thermal %	1, 9	1, 6	1, 3	0, 5	0, 6				

TAFLA 1, 42

ORKUVINNSLA Á NORÐVESTURLANDI 1960-1964

GENERATION OF ELECTRICITY IN N. W. ICELAND 1960-1964

Stöðvar / Plants	Orkuvinnsla / Generation					Aukning / Increase			
	1960	1961	1962	1963	1964	60/61	61/62	62/63	63/64
	MWh	MWh	MWh	MWh	MWh	%	%	%	%
Vestfirðir									
Mjólká	8 313	11 087	9 693	9 530	9 645	33,4	- 12,6	- 1,7	1,2
Reiðhjalli	1 047	1 267	1 363	1 828	1 885	21,0	7,6	34,2	3,1
Fossav. og Nónh. v.	2 724	2 595	3 806	3 395	3 763	- 4,7	46,7	-10,8	10,8
Alls vatn/Hydro	12 084	14 949	14 862	14 753	15 293	23,7	- 0,6	- 0,7	3,7
Patreksfjörður	0	11	115	57	29	-	.	-50,4	-49,1
Bíldudalur	17	46	59	13	25	170,5	28,3	-77,9	92,4
Þingeyri	10	.	.	.	.	.	-	-	-
Flateyri	8	18	48	15	6	125,0	166,8	-67,8	-60,0
Suðureyri	1	-	-	-	-	.	-	-	-
Ísafjörður	987	367	227	48	8	-62,7	-38,2	-78,9	-83,4
Súðavík	-	-	-	-	-	-	-	-	-
Alls varmi/Thermal	1 023	442	449	133	68	- 56,9	1,6	-70,3	-48,9
Alls samtengt/ Total Interconnected	13 107	15 391	15 311	14 886	15 361	17,4	- 0,5	- 2,8	3,2
Þverá	1 520	1 579	1 919	2 051	2 231	3,9	21,5	6,9	8,8
Búðardalur	75	153	231	316	440	103,9	51,0	36,8	39,2
Samtals N. V. land	14 702	17 123	17 461	17 253	18 032	16 4	2,0	- 1,9	4,5
Vatn/Hydro %	92,5	96,5	96,1	97,4	97,2				
Varmi/Thermal %	7,5	3,5	3,9	2,6	2,8				

TAFLA 1, 43

ORKUVINNSLA Á NORÐURLANDI 1960-1964

GENERATION OF ELECTRICITY IN N. ICELAND 1960-1964

Stöðvar / Plants	Orkuvinnsla / Generation					Aukning / Increase			
	1960	1961	1962	1963	1964	60/61	61/62	62/63	63/64
	MWh	MWh	MWh	MWh	MWh	%	%	%	%
Skagafjörður-Húnaþing									
Laxárvatn	2 134	2 003	2 874	3 265	3 263	- 6,1	43,5	13,6	- 0,1
Gönguskarðsá	3 557	4 715	4 811	4 604	5 685	32,6	2,0	- 4,3	23,5
Alls vatn/Hydro	5 691	6 718	7 685	7 869	8 948	18,1	14,4	2,4	13,7
Skagaströnd	300	45	-	-	-	- 85,0	.	.	.
Sauðárkrókur	-	114	271	756	798	.	137,7	179,0	5,6
Hofsós	206	214	222	215	-	3,9	3,7	- 3,2	.
Alls varmi/Thermal	506	373	493	971	798	- 26,3	32,2	97,0	17,8
Alls samtengt/ Total Interconnected	6 197	7 091	8 178	8 840	9 746	14,4	15,4	8,1	10,2
Siglufjörður-Ólafsfj.									
Skeiðsfoss	8 619	9 561	11 079	9 364	9 229	10,9	15,9	-15,5	- 1,4
Garðsá	384	660	1 233	1 189	1 307	72,0	81,9	- 3,7	9,9
Alls samtengt	9 003	10 221	12 312	10 553	10 536	13,5	20,4	-17,4	- 0,2
Laxársvæði									
Laxá	51 894	56 706	60 970	64 971	65 982	9,3	7,5	6,6	1,6
Akureyri	-	164	33	187	80	.	-67,8	467,0	57,7
Alls samtengt	51 894	56 870	61 003	65 158	66 062	9,6	7,3	6,8	1,4
Grímsey	.	.	.	.	22	.	.	.	.
Kópasker	.	.	60	178	179	.	.	196,9	0,6
Raufarhöfn	559	687	997	1 247	1 475	22,9	45,1	25,0	18,3
Þórshöfn	260	310	395	452	496	19,2	27,4	14,4	9,7
Samtals N. land	67 913	75 179	82 945	86 428	88 516	10,7	10,3	4,2	2,4
Vatn/Hydro %	98,0	98,0	97,6	96,5	96,5				
Varmi/Thermal %	2,0	2,0	2,4	3,5	3,5				

TAFLA 1, 44

ORKUVINNSLA Á AUSTURLANDI 1960- 1964

GENERATION OF ELECTRICITY IN E. ICELAND 1960- 1964

Stöðvar / Plants	Orkuvinnsla / Generation					Aukning / Increase			
	1960	1961	1962	1963	1964	60/61	61/62	62/63	63/64
	MWh	MWh	MWh	MWh	MWh	%	%	%	%
Grímsársvæði									
Grímsá	7 154	8 135	7 600	8 908	11 686	13, 7	- 6, 6	17, 2	31, 2
Fjarðará	268	260	702	690	723	- 3, 0	170, 0	- 1, 7	4, 8
Búðará	923	984	1 102	1 018	1 018	6, 6	12, 0	- 7, 6	-
Alls vatn/Hydro	8 345	9 379	9 404	10 616	13 427	12, 4	0, 3	12, 9	26, 5
Seyðisfjörður	7	4	138	192	79	- 42, 9	.	39, 1	-58, 9
Neskaupstaður	144	113	648	1 675	1 625	- 21, 5	.	158, 9	3, 0
Eskifjörður	3	.	.	.	.	.	.	.	.
Reyðarfjörður	-	-	-	-	-	-	-	-	-
Fáskrúðsfjörður	20	20	158	220	127	-	.	39, 2	42, 3
Alls varmi/Thermal	174	137	944	2 087	1 831	- 21, 3	590, 0	121, 1	-12, 3
Alls samtengt/ Total Interconnected	8 519	9 516	10 348	12 703	15 258	11, 7	8, 8	22, 8	20, 1
Bakkafjörður	.	.	48	65	84	.	.	35, 5	29, 2
Vopnafjörður	442	713	1 185	1 101	1 516	61, 3	66, 3	- 7, 1	37, 7
Bakkagerði	130	76	125	147	190	41, 5	-64, 5	17, 6	29, 3
Stöðvarfjörður	210	131	250	238	256	37, 6	-91, 0	- 4, 8	7, 6
Breiðdalsvík	75	80	90	144	130	6, 7	12, 5	60, 0	- 9, 7
Djúpivogur	300	233	261	296	343	- 22, 3	12, 0	13, 4	15, 9
Höfn í Hornafirði	830	1 127	1 063	1 373	1 586	35, 8	5, 7	29, 2	15, 6
Samtals Austurland	10 506	11 876	13 370	16 067	19 363	13, 0	12, 7	20, 1	20, 5
Vatn/Hydro %	79, 4	79, 0	70, 4	66, 0	69, 4				
Varmi/Thermal %	20, 6	21, 0	29, 6	34, 0	30, 6				

TAFLA 1, 5

STÓRNOTKUN OG ALMENN NOTKUN
SPECIAL LOAD AND GENERAL LOAD

Áburðarverksmiðjan/The Fertilizer Plant [1]

	1960	1961	1962	1963	1964
Jan.	9 016	12 523	10 840	10 857	12 111
Feb.	7 927	10 716	11 024	10 056	11 610
Marz	10 903	11 017	12 781	12 481	12 724
Apríl	12 867	13 704	12 764	11 836	12 989
Maí	13 954	14 013	10 802	12 294	14 110
Júní	11 329	13 540	8 482	13 448	13 426
Júlí	13 038	13 250	7 630	12 353	13 533
Ágúst	12 908	13 143	11 885	13 845	12 826
Sept.	12 647	13 512	11 385	12 317	8 742
Okt.	13 009	13 297	12 194	12 190	11 378
Nóv.	12 644	12 661	12 087	8 374	11 866
Des.	12 488	10 298	11 679	6 874	7 154
Alls/ Total	142 730	151 674	133 553	136 925	142 469
Aukn./ Increase	25,9	6,3	-11,9	2,5	4,1

Sementsverksmiðjan/The Cement Plant [2]

1960	1961	1962	1963	1964
1 012	949	995	1 024	1 124
828	1 153	977	979	1 008
688	876	1 098	759	1 004
1 242	206	176	1 163	955
1 251	685	1 187	1 146	1 255
994	391	1 235	1 172	1 171
1 316	1 117	1 221	1 235	1 144
1 384	1 348	1 345	1 342	1 170
1 155	1 266	1 169	1 324	1 121
1 029	1 541	1 275	1 298	1 160
1 056	1 457	1 159	1 203	1 155
1 216	220	1 025	680	1 089
13 171	11 209	12 862	13 325	13 356
- 2,6	- 14,9	14,7	3,6	0,2

Keflavíkurflugvöllur/
NATO Base at Keflavík Airport [2]

	1961	1962	1963	1964
Jan.	3 655	3 701	3 333	4 169
Feb.	2 796	3 366	3 174	3 005
Marz	3 152	3 692	3 596	3 664
Apríl	3 192	3 746	3 412	3 209
Maí	2 894	3 503	3 317	3 397
Júní	2 614	3 204	3 011	3 001
Júlí	3 015	3 279	3 217	3 105
Ágúst	3 164	3 262	3 176	3 322
Sept.	2 943	3 482	3 380	3 303
Okt.	3 486	3 238	3 716	3 536
Nóv.	3 479	3 477	3 238	3 720
Des.	3 706	3 688	3 819	3 614
Alls/ Total	38 096	41 638	40 389	41 045
Aukn. % Increase	155,8	9,3	- 3,0	1,6

Stórnotkun alls/
Total Special Load

1960	1961	1962	1963	1964
10 028	17 127	15 536	15 214	17 404
8 755	14 665	15 367	14 209	15 623
11 591	15 045	17 571	16 836	17 392
14 109	17 102	16 686	16 411	17 153
15 205	17 592	15 492	16 757	18 762
12 323	16 545	12 921	17 631	17 598
14 354	17 382	12 130	16 805	17 782
16 675	17 655	16 492	18 363	17 318
16 616	17 721	16 036	17 021	13 166
17 203	18 324	16 707	17 204	16 074
17 023	17 597	16 723	12 815	16 741
16 910	14 224	16 392	11 373	11 857
170 792	200 979	188 053	190 639	196 870
34,6	17,7	- 6,4	1,4	3,3

1) + 7% flutn. töp / + 7% Transmission Losses
2) + 10% " / + 10% " "

RAFORKU 1960 - 1964

OF ELECTRICITY 1960 - 1964

Almenn notkun / Ordinary Load

	1960	1961	1962	1963	1964
Jan.	36 605	37 419	41 360	46 134	45 050
Febr.	34 367	33 665	36 306	39 112	42 024
Marz	34 481	36 119	39 409	39 402	39 967
Apríl	29 528	31 439	31 926	36 547	38 312
Maí	26 007	27 744	29 256	34 720	32 825
Júní	23 286	23 731	26 291	27 880	30 315
Júlí	23 367	25 352	26 711	29 839	32 740
Ágúst	24 428	27 130	29 536	32 502	32 826
Sept.	27 293	28 608	31 580	34 700	36 630
Okt.	32 295	34 311	37 834	39 877	42 449
Nóv.	34 239	37 703	41 785	44 728	44 516
Des.	39 289	44 353	45 984	44 557	51 132
Alls/ Total	365 185	387 574	417 978	449 998	468 786
Aukn. % Increase	2, 2	6, 1	7, 8	7, 7	4, 2

Orkuvinnsla alls/ Total Generation

	1960	1961	1962	1963	1964
Jan.	46 633	54 546	56 896	61 348	62 454
Feb.	43 122	48 330	51 673	53 321	57 647
Marz	46 072	51 164	56 980	56 238	57 359
Apríl	43 637	48 541	48 612	52 958	55 465
Maí	41 212	45 336	44 748	51 477	51 587
Júní	35 609	40 276	39 212	45 511	47 913
Júlí	37 721	42 734	38 841	46 644	50 522
Ágúst	41 103	44 785	46 028	50 865	50 144
Sept.	43 909	46 329	47 616	51 721	49 796
Okt.	49 498	52 635	54 541	57 081	58 523
Nóv.	51 262	55 300	58 508	57 543	61 257
Des.	56 199	58 577	62 376	55 930	62 989
Alls/ Total	535 977	588 553	606 031	640 637	665 656
Aukn. % Increase	10, 7	9, 8	3, 0	5, 7	3, 9

TAFLA 1,6

ALMENN RAFORKUNOTKUN EFTIR ÁRSFJÓRÐUNGUM 1958-1964

GENERAL LOAD BY QUARTERS 1958-1964

Tímabil/ periods	1958 GWh	1959 GWh	1960 GWh	1961 GWh	1962 GWh	1963 GWh	1964 GWh	
I. ársfj. /quarter	95,9	99,4	105,5	107,2	117,1	124,7	127,0	
II. "	70,4	78,4	78,8	82,9	87,9	99,1	101,5	
III. "	65,4	75,0	75,1	81,1	87,5	97,0	102,2	
IV. "	96,2	104,5	105,8	116,4	125,5	129,2	138,1	
Samtals/Total	327,9	357,3	365,2	387,6	418,0	450,0	468,8	
Aukn/ Increase	8,7%	9,0%	2,2%	6,1%	7,8%	7,1%	4,2%	
	GWh í %	GWh í %	GWh í %	GWh í %	GWh í %	GWh í %	GWh í %	Meðaltal % Average %
I. ársfj. / quarter	29,2	27,8	28,9	27,7	28,0	27,7	27,1	28,1
II. "	21,5	22,0	21,6	21,4	21,1	22,0	21,7	21,6
III. "	19,9	21,0	20,5	20,9	20,9	21,6	21,8	20,9
IV. "	29,4	29,2	29,0	30,0	30,0	28,7	29,4	29,4
Samtals/ Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Ath.:

Heildar raforkuvinnsla almenningsrafstöðva að frádreginni stórnotkun, þ.e. Áburðarverksmiðjan, Sementsverksmiðjan og Keflavíkurflugvöllur.

Generation of electricity less special load, i.e. Fertilizer Plant, Cement Plant and Keflavík Airport.

TAFLA 1, 7

ORKUVINNSLA OG STÓRNOTKUN Á SUÐVESTURLANDI 1959-1964

GENERATION OF ELECTRICITY AND SUBDIVISION OF LOAD IN S. W. ICELAND 1959-1964

Stöðvar/Plants	1959 MWh	1960 MWh	1961 MWh	1962 MWh	1963 MWh	1964 MWh
Steingrímsstöð	149	94 286	123 856	126 818	129 979	134 637
Írafoss	234 490	209 747	215 479	220 426	244 665	254 785
Ljósafoss	110 690	96 109	103 546	102 705	108 238	110 196
Alls Sogið/Total Sog	345 329	400 142	442 881	449 949	482 882	499 618
Elliðaár	11 695	6 806	5 399	4 707	4 818	5 508
Andakíll	25 914	23 839	24 613	26 951	26 154	26 960
Alls vatnsafl/Total Hydro	382 938	430 787	472 893	481 607	513 854	532 086
Elliðaár, varmi/Steam	2 779	1 633	63	114	699	38
Vestmannaeyjar/Diesel	5 186	5 568	5 649	4 934	483	1 554
Vík í Mýrdal/Diesel	223	247	434	416	324	-
Alls samtengt/ Total Interconnected	391 126	438 235	479 039	487 071	515 360	533 678
Aukning/Increase	.	(12, 0%)	(9, 3%)	(1, 7%)	(5, 8%)	(3, 6%)
- Stórnotkun/ Less Special Load	126 858	170 792	200 979	188 053	190 639	196 815
Áburðarverksmiðjan/ Fertilizer Plant	113 338	142 730	151 674	133 553	136 925	142 469
Sementsverksmiðjan/ Cement Plant	13 520	13 171	11 209	12 862	13 325	13 356
Keflavíkurflugvöllur/ Keflavík Airport	-	14 891	38 096	41 638	40 389	40 990
Almenn notkun/ Interconnected Gen. Load	264 268	267 443	278 060	299 018	324 721	336 863
Aukning/Increase	.	(1, 2%)	(4, 0%)	(7, 5%)	(8, 6%)	(3, 7%)
Aðrar stöðvar/ Other Plants	3 920	4 720	5 336	5 184	5 529	6 067
Rjúkandi/Hydro	3 263	3 589	3 695	4 158	4 320	4 549
Dísilstöðvar/Diesel	657	1 131	1 641	1 026	1 209	1 518
Alls almenn notkun/ Total General Load	268 188	272 163	283 396	304 202	330 250	342 930
Alls orkuvinnsla á Suðvesturlandi/ Total Generation in S.W.Iceland	395 046	442 955	484 375	492 255	520 889	539 745
Aukning/Increase	.	(12, 1%)	(9, 4%)	(1, 6%)	(5, 8%)	(3, 6%)

TAFLA 1, 8

RAFSTÖÐVAR SUNDURLIÐAÐAR EFTIR EIGENDUM 1964

OWNERSHIP OF PUBLIC POWER PLANTS

Nr.	Eigendur rafstöðva/ Ownership	Ástimplað afl, kW/ Installed Capacity				Orkuvinnsla, MWh/ Generation				Aukn. vinnslu Incr. Gen. 1963/64
		Vatn/ Hydro	Varmi/ Thermal	Alls/ Total	%	Vatn/ Hydro	Varmi/ Thermal	Alls/ Total	%	%
0	1	2	3	4	5	6	7	8	9	10
1.	Rafmagnsveitur ríkisins/ State Electric Power Works	10 038	11 733	21 771	14,5	40 974	10 895	51 869	7,8	11,4
2.	Ríki og bæjarfélög/ State and Municipal Power Works	101 360	2 000	103 360	69,4	565 600	80	565 680	85,0	3,2
3.	Bæjar- og sveitarfélög/ Municipal Power Works	11 280	12 847	24 127	16,1	46 478	1 629	48 107	7,2	4,5
	Samtals/Total	122 678	26 580	149 258	100,0	653 052	12 604	665 656	100,0	3,9
		82,2	17,8	100,0	%	98,1	1,9	100,0	%	

Nr.	Rafstöðvar/ Power Plants	Ástimplað afl kW Installed Capacity
1.	Rafmagnsveitur ríkisins :	
	State Electric Power Works	(21 771)
	Vatnsafl/Hydro :	(10 038)
1.	Rjúkandi	840
2.	Mjólká	2 400
3.	Reiðhjalli	400
4.	Þverá	1 736
5.	Laxárvatn	464
6.	Gönguskarðsá	1 064
7.	Garðsá	174
8.	Fjarðará	160
9.	Grímsá	2 800
	Varmaafl/Thermal :	(11 733)
1.	Vík í Mýrdal	250
2.	Ólafsvík	1 200
3.	Stykkishólmur	675
4.	Búðardalur	350
5.	Bíldudalur	289
6.	Flateyri	234
7.	Suðureyri	128
8.	Súðavík	30
9.	Skagaströnd	200
10.	Sauðárkrókur	1 200
11.	Hofsós	145
12.	Grímsey	60
13.	Hrísey	110
14.	Kópasker	110
15.	Raufarhöfn	820
16.	Þórshöfn	420
17.	Bakkafjörður	75
18.	Vopnafjörður	1 230
19.	Bakkagerði	160
20.	Seyðisfjörður	260
21.	Neskaupstaður	2 200
22.	Fáskrúðsfjörður	240
23.	Stöðvarfjörður	162
24.	Breiðdalsvík	130
25.	Djúpivogur	380
26.	Höfn í Hornafirði	675
2.	Ríki og bæjarfélög :	
	State and Municipal Power Works	(103 360)
	Vatnsafl/Hydro :	(101 360)
1.	Steingrímsstöð	26 400
2.	Írafoss	47 800
3.	Ljósafoss	14 600
4.	Laxá	12 560
	Varmaafl/Thermal :	(2 000)
1.	Akureyri	2 000
3.	Bæjar- og sveitafélög :	
	Municipal Power Works	(24 127)
	Vatnsafl/Hydro :	(11 280)
1.	Elliðaár	3 160
2.	Andakíll	3 520
3.	Fossav. & Nónh. v.	1 160
4.	Skeiðsfoss	3 200
5.	Búðará	240
	Varmaafl/Thermal :	(12 847)
1.	Vestmannaeyjar	3 927
2.	Elliðaár	7 500
3.	Patreksfjörður	480
4.	Ísafjörður	890
5.	Reyðarfjörður	50

TAFLA 1, 9

EINKASTÖÐVAR 31. 12. 1964

PRIVATE POWER PLANTS

Nr.	Rafstöðvar / Plants	Vatnsafl/Hydro		Varmaafl/Thermal		Samtals/Total	
		Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW
0	1	2	3	4	5	6	7
1.	Sveitabýli/Farms (1054)	342	3 703,7	532	2 213,5	874	5 917,2
2.	Skólar, félagsheimili o.þ.h. / Schools, Clubs, etc.	5	193,0	25	303,5	30	496,5
3.	Atvinnufyrirtæki í kaupst. / Industries, Urban	1	3,0	14	3 683,5	15	3 686,5
4.	Atvinnufyrirtæki í kaupst.varast. / Industries, Urban, reserve	-	-	68	4 141,0	68	4 141,0
5.	Atvinnufyrirtæki í sýslum/ Industries, Rural	4	221,2	49	3 271,0	53	3 492,2
6.	Atvinnufyrirtæki í sýslum varast./ Industries, Rural, reserve	-	-	40	2 728,0	40	2 728,0
	(Atvinnufyrirtæki alls) / (Total industries)	(5)	(224,2)	(171)	(13 823,5)	(176)	(14 047,7)
	Einkastöðvar samtals/ Private Plants Total	352	4 120,9	728	16 340,5	1 080	20 461,4
	Almenningsrafstöðvar/ Public Power Plants	18	122 678,0	32	26 580,0	50	149 258,0
	Allar stöðvar samtals/ Grand total	370	126 798,9	760	42 920,5	1 130	169 719,4

1) Þar af 3 gufuaflsstöðvar, alls 2 125,0 kW 3 steam power plants
2) " " 1 gufuaflsstöð, " 7 500,0 " 1 " " "
3) " " 4 gufuaflsstöðvar, alls 9 625,0 kW 4 steam power plants

EINKASTÖÐVAR EFTIR LANDSHLUTUM

PRIVATE POWER PLANTS ACCORDING TO AREAS

Nr.	Landshlutar / Areas	Sveitabýli Farms	Skólar o.þ.h. Schools, etc.	Fyrirtæki Industries	Samtals Total	
		kW	kW	kW	kW	%
0	1	2	3	4	5	6
1.	Suðvesturland/ SW	1 833,7	69,5	5 549,0	7 452,2	36,4
2.	Norðvesturland/ NW	1 248,0	212,5	1 800,7	3 261,2	15,9
3.	Norðurland/ N	1 913,0	138,0	5 599,5	7 650,5	37,4
4.	Austurland/E	922,5	76,5	1 098,5	2 097,5	10,3
	Samtals/Total	5 917,2	496,5	14 047,7	20 461,4	100,0
		28,9%	2,4%	68,7%	100,0%	

TAFLA 1, 91

EINKARAFSTÖÐVAR SKÓLA, FÉLAGSHEIMILA O. Þ. H.

PRIVATE POWER PLANTS; SCHOOLS, ETC.

Nr.		Vatnsafl/Hydro		Varmaafl/Thermal		Samtals/Total	
	Sýslur/Counties	Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW
0	1	2	3	4	5	6	7
1.	Gullbringusýsla	-	-	-	-	-	-
2.	Kjósarsýsla	-	-	-	-	-	-
3.	Borgarfjarðarsýsla	-	-	-	-	-	-
4.	Mýrasýsla	-	-	-	-	-	-
5.	Snæfells- og Hnappadalss.	-	-	5	20, 0	5	20, 0
6.	Dalasýsla	-	-	2	30, 5	2	30, 5
7.	A. Barðastrandarsýsla	-	-	-	-	-	-
8.	V. Barðastrandarsýsla	-	-	2	55, 0	2	55, 0
9.	V. Ísafjarðarsýsla	1	35, 0	-	-	1	35, 0
10.	N. Ísafjarðarsýsla	-	-	2	80, 0	2	80, 0
11.	Strandasýsla	-	-	2	12, 0	2	12, 0
12.	V. Húnavatnssýsla	-	-	-	-	-	-
13.	A. Húnavatnssýsla	-	-	-	-	-	-
14.	Skagafjarðarsýsla	1	50, 0	-	-	1	50, 0
15.	Eyjafjarðarsýsla	-	-	-	-	-	-
16.	S. Þingeyjarsýsla	1	38, 0	1	11, 0	2	49, 0
17.	N. Þingeyjarsýsla	1	14, 0	1	25, 0	2	39, 0
18.	N. Múlasýsla	-	-	3	20, 5	3	20, 5
19.	S. Múlasýsla	1	56, 0	-	-	1	56, 0
20.	A. Skaftafellssýsla	-	-	-	-	-	-
21.	V. Skaftafellssýsla	-	-	-	-	-	-
22.	Rangárvallasýsla	-	-	-	-	-	-
23.	Árnessýsla	-	-	7	49, 5	7	49, 5
24.	Vestmannaeyjar	-	-	-	-	-	-
	Samtals/Total	5	193, 0	25	303, 5	30	496, 5

TAFLA 1,92

EINKASTÖÐVAR SVEITABÝLA

PRIVATE POWER PLANTS: FARMS

Vatnsafl/Hydro			Varmaafl/Thermal			Samtals/Total			Nr.
Stöðvar Plants tala/Nos	Afl Capacity kW	Býli Farms tala/Nos	Stöðvar Plants tala/ Nos	Afl Capacity kW	Býli Farms tala/Nos	Stöðvar Plants tala/Nos	Afl Capacity kW	Býli Farms tala/Nos	
2	3	4	5	6	7	8	9	10	0
-	-	-	3	23,5	3	3	23,5	3	1.
3	34,0	3	1	4,0	1	4	38,0	4	2.
4	33,5	4	8	30,0	8	12	63,5	12	3.
5	44,5	6	25	127,0	25	30	171,5	31	4.
11	142,0	15	49	197,5	55	60	339,5	70	5.
7	87,0	7	56	215,5	59	63	302,5	66	6.
6	55,0	9	20	84,0	23	26	139,0	32	7.
15	251,5	24	30	111,0	30	45	362,5	54	8.
6	63,0	6	15	67,5	15	21	130,5	21	9.
1	8,0	1	19	82,0	19	20	90,0	20	10.
7	40,0	11	44	183,5	51	51	223,5	62	11.
6	55,0	8	10	42,0	11	16	97,0	19	12.
16	127,0	18	15	62,0	16	31	189,0	34	13.
9	92,0	13	19	89,0	19	28	181,0	32	14.
18	174,0	24	5	29,5	5	23	203,5	29	15.
49	751,5	70	21	110,0	25	70	861,5	95	16.
15	172,0	24	51	209,0	64	66	381,0	88	17.
17	185,0	21	39	160,5	40	56	345,5	61	18.
22	217,5	27	43	176,5	44	65	394,0	71	19.
20	143,5	33	13	39,5	13	33	183,0	46	20.
66	572,0	101	17	50,0	17	83	622,0	118	21.
22	283,2	30	4	13,0	4	26	296,2	34	22.
17	172,5	25	23	102,5	25	40	275,0	50	23.
-	-	-	2	4,5	2	2	4,5	2	24.
342	3 703,7	480	532	2 213,5	574	874	5 917,2	1 054	

TAFLA 1,93

EINKASTÖÐVAR ATVINNUFYRIRTÆKJA

PRIVATE POWER PLANTS:

Nr.	Sýslur / Counties	Vatnsafl / Hydro		Varmaafl / Thermal	
		Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW
0	1	2	3	4	5
1.	Gullbringusýsla	-	-	3	6,5
2.	Kjósarsýsla	-	-	-	-
3.	Borgarfjarðarsýsla	-	-	2	32,5
4.	Mýrasýsla	-	-	1	43,5
5.	Snæfells- og Hnappadalssýsla	-	-	4	165,0
6.	Dalasýsla	-	-	1	12,5
7.	A. Barðastrandarsýsla	-	-	-	-
8.	V. Barðastrandarsýsla	-	-	3	303,0
9.	V. Ísafjarðarsýsla	2	16,2	4	89,0
10.	N. Ísafjarðarsýsla	-	-	3	62,0
11.	Strandasýsla	1	95,0	4	63,0
12.	V. Húnavatnssýsla	-	-	-	-
13.	A. Húnavatnssýsla	-	-	2	1 050,0 [1]
14.	Skagafjarðarsýsla	-	-	4	82,5
15.	Eyjafjarðarsýsla	-	-	4	10,5
16.	S. Þingeyjarsýsla	-	-	1	3,0
17.	N. Þingeyjarsýsla	-	-	2	699,0
18.	N. Múlasýsla	-	-	3	306,5
19.	S. Múlasýsla	-	-	3	231,0
20.	A. Skaftafellssýsla	-	-	1	50,0
21.	V. Skaftafellssýsla	1	110,0	-	-
22.	Rangárvallasýsla	-	-	-	-
23.	Árnessýsla	-	-	4	61,5
	Samtals / Total	4	221,2	49	3 271,0

1) Þar af gufuaflsstöð 1 000,0 kW
Whereof 1 steam power plant 1 000 kW

Í SÝSLUM

INDUSTRIES AND OTHER UNDERTAKINGS IN COUNTIES

Samtals/Total		Varaafl/Reserve		Samtals/Total		
Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW	Nr.
6	7	8	9	10	11	
3	6,5	3	113,0	6	119,5	1.
-	-	-	-	-	-	2.
2	32,5	3	460,0	5	492,5	3.
1	43,5	1	50,0	2	93,5	4.
4	165,0	2	13,0	6	178,0	5.
1	12,5	-	-	1	12,5	6.
-	-	-	-	-	-	7.
3	303,0	-	-	3	303,0	8.
6	105,2	1	30,0	7	135,2	9.
3	62,0	-	-	3	62,0	10.
5	158,0	7	1 005,0	12	1 163,0	11.
-	-	4	55,0	4	55,0	12.
2	1 050,0	1	20,0	3	1 070,0	13.
4	82,5	2	65,0	6	147,5	14.
4	10,5	4	422,0	8	432,5	15.
1	3,0	1	50,0	2	53,0	16.
2	699,0	-	-	2	699,0	17.
3	306,5	-	-	3	306,5	18.
3	231,0	6	175,0	9	406,0	19.
1	50,0	1	20,0	2	70,0	20.
1	110,0	1	30,0	2	140,0	21.
-	-	1	15,0	1	15,0	22.
4	61,5	2	205,0	6	266,5	23.
53	3 492,2	40	2 728,0	93	6 220,2	

TAFLA 1,94

EINKASTÖÐVAR ATVINNUFYRIRTÆKJA Í KAUPSTÖÐUM

PRIVATE POWER PLANTS: INDUSTRIES AND OTHER COMMERCIAL UNDERTAKINGS IN TOWNS

Nr.	Kaupstaðir / Towns	Vatnsafl/Hydro		Varmaafl/Thermal		Varaafl/Reserve		Samtals/Total	
		Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW	Stöðvar Plants tala/Nos	Afl Capacity kW
0	1	2	3	4	5	6	7	8	9
1.	Reykjavík	-	-	-	-	32	2 085, 5	32	2 085, 5
2.	Hafnarfjörður	-	-	-	-	1	32, 0	1	32, 0
3.	Akranes	-	-	-	-	6	464, 0	6	464, 0
4.	Ísafjörður	-	-	2	125, 0	-	-	2	125, 0
5.	Siglufjörður	-	-	3	2 038, 0 [1]	-	-	3	2 038, 0
6.	Ólafsfjörður	-	-	-	-	1	50, 0	1	50, 0
7.	Akureyri	-	-	1	125, 0 [2]	24	829, 5	25	954, 5
8.	Húsavík	-	-	-	-	1	100, 0	1	100, 0
9.	Seyðisfjörður	1	3, 0	2	313, 0	-	-	3	316, 0
10.	Vestmannaeyjar	-	-	6	1 082, 5	3	580, 0	9	1 662, 5
	Samtals/Total	1	3, 0	14	3 683, 5	68	4 141, 0	83	7 827, 5

1) Þar af 1 gufuaflsstöð 1 000, 0 kW / Whereof 1 steam power plant 1 000 kW

2) Gufuaflsstöð / Steam

TAFLA 2,1

HÉRAÐSRAFMAGNSVEITUR RÍKISINS: RAFLÝST BÝLI 1959 - 1964

THE STATE ELECTRIC UTILITIES: ELECTRIFIED FARMS 1959-1964

Nr.	Veitur/ Utilities	1959	1960		1961		1962		1963		1964	
		Alls/ Total	Aukn./ Increase	Alls/ Total	Aukn./ Increase	Alls/ Total	Aukn./ Increase	Alls/ Total	Aukn./ Increase	Alls/ Total	Aukn./ Increase	Alls/ Total
1.	Gullbringuveita	45	-	45	-	45	3	48	1	49	8 [1]	57
2.	Borgarfjarðarveita	203	15	218	1	219	6	225	2	227	10	237
3.	Snæfellsnesveita	45	-	45	-	45	-	45	28	73	-	73
4.	Dalaveita	-	15	15	-	15	9	24	-	24	12	36
5.	Barðastrandarveita	-	-	-	10	10	14	24	14	38	-	38
6.	Vestfjarðaveita	18	17	35	1	36	1	37	11	48	-	48
7.	Strandaveita	23	-	23	-	23	1	24	2	26	-	26
8.	Húnaveita	115	10	225	14	139	10	149	22	171	4	175
9.	Skagafjarðarveita	171	23	194	2	196	2	198	39	237	42	279
10.	Eyjafjarðarveita	236	24	260	3	263	14	277	32	309	13	322
11.	Þingeyjarveita	161	5	166	15	181	44	225	4	229	36	265
12.	Austurlandsveita	59	12	71	14	85	1	86	29	115	2	117
13.	Skaftafellsveita	-	11	11	27	38	36	74	16	90	17	107
14.	Rangárvallaveita	294	28	322	48	370	27	397	9	406	41	447
15.	Árnesveita	311	55	366	2	368	20	388	50	438	11	449
	Samtals/Total	1 681	215	1 896	137	2 033	188	2 221	259	2 480	196	2 676

1) 8 býli yfirtekin af orkuveitusvæði Rafmagnsveitu Reykjavíkur í Kjósarsýslu

TAFLA 2,2

ORKUKAUP OG ORKUVINNSLA RAFMAGNSVEITNA RÍKISINS 1964

THE STATE ELECTRIC POWER WORKS: GENERATION AND PURCHASES OF ELECTRICITY

Nr.		Afl/Power kW	Orka/Energy MWh	Orka/Energy %	Aukning/ Increase 1963/1964 MWh in %	Nýt. tími/ Utilization hours h
1.	Aðkeypt orka/ Purchased Electricity					
1.	Sog	21 500	108 048	60,1	3,3	5 025
2.	Andakíll	561	2 029	1,1	2,2	3 617
3.	Skeiðsfoss	459	711	0,4	10,0	1 549
4.	Laxá	4 475	16 632	9,3	6,5	3 717
5.	Ísafjörður, Rafv.	140	416	0,2	4,3	2 971
	Alls	.	127 836	71,1	3,5	.
2.	Eigin stöðvar/Own Plants					
1.	Rjúkandi	960	4 549	2,5	5,3	4 739
2.	Mjólká	2 505	9 645	5,4	1,2	3 850
3.	Reiðhjalli	412	1 885	1,1	3,1	4 575
4.	Þverá	450	2 231	1,2	8,8	4 958
5.	Laxárvatn	490	3 263	1,8	- 0,1	6 659
6.	Gönguskarðsá	1 200	5 685	3,2	23,5	4 738
7.	Garðsá	183	1 307	0,7	9,9	7 142
8.	Fjarðará	172	723	0,4	4,8	4 203
9.	Grímsá	3 282	11 686	6,5	21,3	3 561
	Alls vatnsafl/ Hydro	.	40 974	22,8	12,6	.
10.	Dísilafl/ Diesel	.	10 895	6,1	7,1	.
	Alls / Total	.	51 869	28,9	11,4	.
3. 1.	Einkastöðvar/Pr.Plants	-	-	-	-	-
	Samtals/Grand Total	.	179 705	100,0	5,7	.

TAFLA 2,3

ORKUSALA RAFMAGNSVEITNA RÍKISINS 1964

THE STATE ELECTRIC POWER WORKS: BULK SALES OF ELECTRICITY

Nr.	Kaupandi/Buyer	Afl/Power kW	Orka/Energy MWh	Nýtingartími/ Utilization hours h	Aukn./Incr. 1963 / 1964 MWh í %
1.	Rafveitur bæjar-og sveitarfél./ Municipal Electric Utilities				
1.	Vatnsleysuströnd	246	764	3 106	- 1,7
2.	Njarðvíkur	965	3 950	4 093	4,7
3.	Keflavík	3 086	12 659	4 102	- 1,8
4.	Garður	413	1 529	3 702	12,8
5.	Sandgerði	990	2 678	2 705	0,3
6.	Grindavík	950	3 822	4 023	10,2
7.	Eyrarbakki	385	1 505	3 909	0,8
8.	Stokkseyri	280	1 130	4 036	4,7
9.	Selfoss	1 434	5 219	3 639	3,4
10.	Hveragerði	418	1 300	3 110	10,6
11.	Vestmannaeyjar	1 602	7 842	4 895	8,3
12.	Patreksfjörður	499	1 990	3 988	12,9
13.	Ísafjörður	621	1 772	2 853	- 13,2
14.	Sauðárkrókur	706	2 700	3 824	14,7
15.	Húsavík	1 078	4 900	4 545	4,5
16.	Reyðarfjörður	346	503	1 460	91,4
	Alls	14 019	54 263	.	4,2
2.	Héraðsrafm. veitur ríkisins/ The State Electric Utilities				
1.	Rangárvallaveita	1 200	4 635	3 863	15,5
2.	Árnesveita	2 150	8 285	3 853	54,8
3.	Gullbringuveita	350	1 182	3 377	6,2
4.	Borgarfjarðarveita	1 282	4 583	3 575	11,8
5.	Snæfellsnesveita	1 958	5 819	2 972	5,2
6.	Dalaveita	169	440	2 604	34,2
7.	Vestfjarðaveita	2 188	8 215	3 771	8,5
8.	Strandaveita	540	2 231	4 131	8,8
9.	Húnaveita	1 290	4 554	3 530	5,7
10.	Skagafjarðarveita	706	2 298	3 255	13,8
11.	Eyjafjarðarveita	2 900	10 136	3 495	16,4
12.	Þingeyjarveita	1 606	5 629	3 505	2,1
13.	Austurlandsveita	5 060	16 291	3 220	21,5
14.	Skaftafellsveita	741	2 286	3 085	22,4
	Alls	22 140	76 584	.	16,3
	Allar veitur samtals/ Total Utilities	36 159	130 847	.	11,0
3.	Andakílsárvirkjun/ Andakíll Power Plant	2 246	8 157	3 632	- 9,1
	Alls	38 405	139 004	.	9,5
4.	Keflavíkurflugvöllur/ NATO Base at Keflavík Airport	5 660	37 314	6 593	1,6
	Samtals/Grand Total	44 065	176 318	.	7,8

TAFLA 3, 1

MÁNAÐARLEG ORKUVINNSLA FJÓRÐA ÁRSFJÓRÐUNG 1964, MWh

MONTHLY GENERATION OF ELECTRICITY FOURTH QUARTER 1964, MWh

Stöðvar/Plants	Okt.	Nóv.	Des.	Alls/Total	4. ársfj. 1963 4. quarter 1963	Aukning/ Increase %
VATNSAFL/ HYDRO						
Steingrímsstöð	11 607	12 535	12 530	36 672	33 165	10,6
Írafoss	21 910	23 220	23 119	68 249	63 652	7,2
Ljósafoss	9 880	9 847	10 262	29 989	28 128	6,6
Elliðaár	322	648	656	1 626	2 103	- 22,7
Andakíll	2 349	2 665	2 341	7 355	7 183	2,4
Rjúkandi	412	442	393	1 247	1 176	6,0
Mjólká	746	816	1 083	2 645	2 918	- 9,4
Reiðhjalli	198	237	224	659	611	6,9
Fossav. & Nónh. v.	347	341	226	914	642	42,4
Þverá	225	192	246	663	602	10,1
Laxárvatn	301	291	307	899	829	8,4
Gönguskarðsá	567	545	577	1 689	1 483	13,9
Skeiðsfoss	780	800	925	2 505	2 634	- 4,9
Laxá	5 994	6 368	7 365	19 727	19 187	2,8
Grímsá	1 460	766	500	2 726	2 529	7,8
Aðrar/ Others	261	224	212	697	720	- 3,2
Alls/Total	57 359	59 937	60 966	178 262	167 562	6,4
GUFUAFL/ STEAM						
Elliðaár	-	-	3	3	308	- 99,0
DÍSILAFL/ DIESEL						
Vestmannaeyjar	26	30	56	112	139	- 19,4
Aðrar / Others	1 138	1 290	1 964	4 392	2 545	72,6
Alls/ Total	1 164	1 320	2 023	4 507	2 992	50,6
Samtals/ Grand Total	58 523	61 257	62 989	182 769	170 554	7,2

TAFLA 3, 2

MÁNAÐARLEG ORKUVINNSLA FYRSTA ÁRSFJÓRÐUNG 1965, MWh

MONTHLY GENERATION OF ELECTRICITY FIRST QUARTER 1965, MWh

Stöðvar/Plants	Janúar	Febrúar	Marz	Alls/Total	1. ársfj. '64 1.quarter '64	Aukning Increase %
VATNSAFL/HYDRO						
Steingrímsstöð	12 282	11 727	12 175	36 184	35 263	2, 6
Írafoss	23 044	20 915	21 848	65 807	68 359	- 3, 7
Ljósafoss	10 286	9 375	9 973	29 634	29 040	2, 0
Elliðaár	716	566	470	1 752	2 891	- 39, 4
Andakíll	2 474	2 480	2 270	7 224	7 787	- 7, 2
Rjúkandi	378	421	560	1 359	1 242	9, 5
Mjólká	1 071	737	1 117	2 925	2 618	11, 7
Reiðhjalli	203	213	236	652	621	5, 0
Fossav. & Nónh. v.	202	380	258	840	952	- 11, 8
Þverá	232	201	215	648	571	13, 5
Laxárvatn	307	288	305	900	867	3, 8
Gönguskarðsá	558	477	476	1 511	1 395	8, 3
Skeiðsfoss	856	702	787	2 345	2 154	8, 9
Laxá	7 214	5 720	6 774	19 708	18 050	9, 2
Grímsá	482	729	444	1 655	2 474	- 33, 1
Aðrar/Others	207	218	230	655	660	- 0, 8
Alls vatn/Total Hydro	60 512	55 149	58 138	173 799	174 944	- 0, 7
GUFUAFL/STEAM						
Elliðaár	9	72	84	165	35	371, 9
DÍSILAFL/DIESEL						
Vestmannaeyjar	316	294	313	923	216	327, 2
Aðrar/Others	1 815	976	1 560	4 351	2 265	92, 1
Alls varmi/Total Thermal	2 140	1 342	1 957	5 439	2 516	116, 1
Samtals/Grand Total	62 652	56 491	60 095	179 238	177 460	1, 0

TAFLA 3, 3

MÁNAÐARLEG ORKUVINNSLA FJÓRÐA ÁRSFJÓRÐUNGS 1964, MWh

MONTHLY GENERATION OF ELECTRICITY FOURTH QUARTER 1964, MWh

Stöðvar/ Plants	Okt.	Nóv.	Des.	Alls/Total	4. ársfj. '63 4. quarter'63	Aukning Increase %
Steingrímsstöð	11 607	12 535	12 530	36 672	33 165	10,6
Írafoss	21 910	23 220	23 119	68 249	63 652	7,2
Ljósafoss	9 880	9 847	10 262	29 989	28 128	6,6
Alls Sogið / Total Sog	43 397	45 602	45 911	134 910	124 945	8,0
Elliðaár	322	648	656	1 626	2 103	- 22,7
Andakíll	2 349	2 665	2 341	7 355	7 183	2,4
Alls vatnsafl/Total Hydro	46 068	48 915	48 908	143 891	134 231	7,2
Elliðaár, varastöð/Steam	-	-	3	3	308	- 99,0
Vestmannaeyjar/Diesel	26	30	56	112	139	- 19,4
Vík í Mýrdal/ Diesel	-	-	-	-	-	.
Alls samtengt/ Total Interconnected	46 094	48 945	48 967	144 006	134 678	6,9
- Stórnotkun/ Less Special Load	16 074	16 741	11 857	44 672	41 392	7,9
Áburðarverksmiðjan/ [1] Fertilizer Plant	11 378	11 866	7 154	30 398	27 438	10,8
Sementsverksmiðjan [2] Cement Plant	1 160	1 155	1 089	3 404	3 181	7,0
Keflavíkurflugvöllur [3] Keflavík Airport	3 536	3 720	3 614	10 870	10 773	0,9
Almenn notkun / Interconnected General Load	30 020	32 204	37 110	99 334	93 286	6,5
Aðrar stöðvar/ Other Plants	556	617	594	1 767	1 546	14,3
Rjúkandi/Hydro	412	442	393	1 247	1 176	6,0
Aðrar / Others (2) Diesel	144	175	201	520	370	40,6
Alls almenn notkun/ Total General Load	30 576	32 821	37 704	101 101	94 832	6,6
Alls orkuvinnsla á Suðvesturlandi / Total Generation in S. W. Iceland	46 650	49 562	49 561	145 773	136 224	7,0

1) + 7% flutn. töp / + 7% Transmission Losses

2) + 10% " " / + 10% " "

TAFLA 3, 4

ORKUVINNSLA OG STÓRNOTKUN Á SUÐVESTURLANDI 1. ÁRSFJÓRÐUNG 1965, MWh

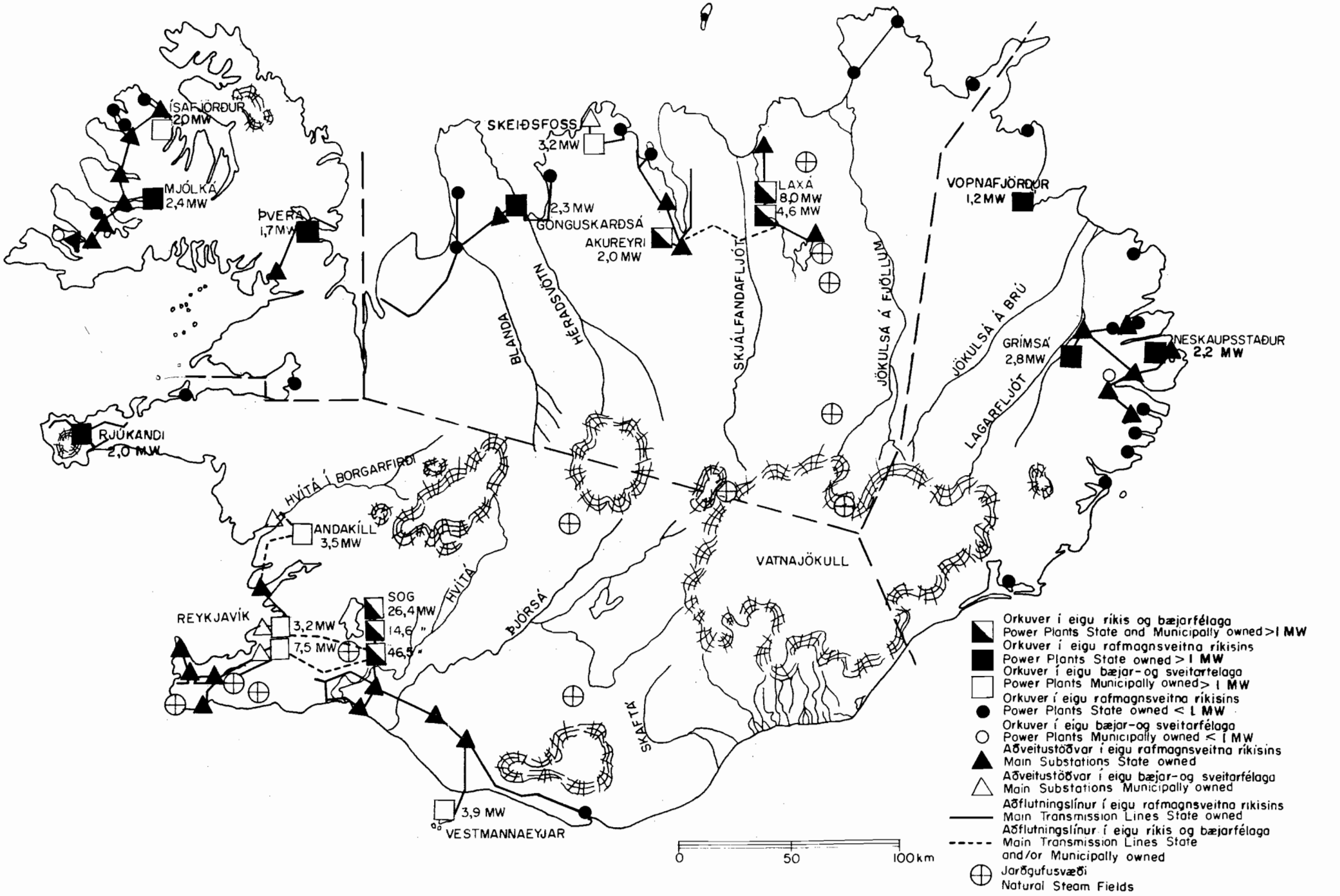
GENERATION OF ELECTRICITY AND SUBDIVISION OF LOAD IN S.W.ICELAND 1. QUARTER 1965, MWh

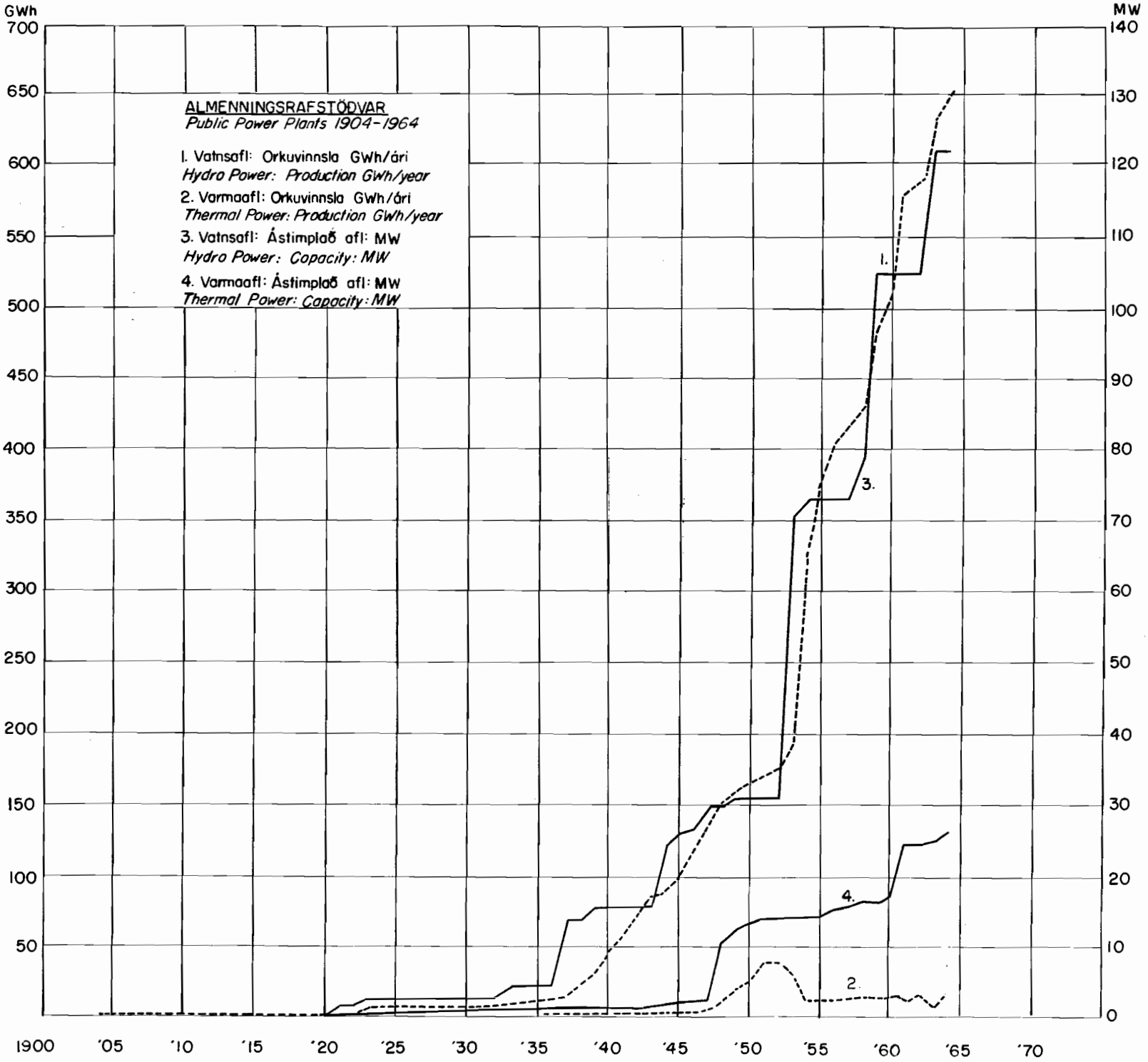
Stöðvar/Plants	Janúar	Febrúar	Marz	Alls/Total	1. ársfj. '64 1.quarter '64	Aukning/ Increase %
Steingrímsstöð	12 282	11 727	12 175	36 184	35 263	2, 6
Írafoss	23 044	20 915	21 848	65 807	68 359	- 3, 7
Ljósafoss	10 286	9 375	9 973	29 634	29 040	2, 0
Alls Sogið/Total Sog	45 612	42 017	43 996	131 625	132 662	- 0, 8
Elliðaár	716	566	470	1 752	2 891	- 39, 4
Andakíll	2 474	2 480	2 270	7 224	7 787	- 7, 2
Alls vatnsafl/Total Hydro	48 802	45 063	46 736	140 601	143 340	- 1, 9
Elliðaár,varastöð/Steam	9	72	84	165	35	371, 9
Vestmannaeyjar/Diesel	316	294	313	923	216	327, 2
Vík í Mýrdal/ Diesel	-	-	-	-	-	.
Alls samtengt/ Total Interconnected	49 127	45 429	47 133	141 689	143 591	- 1, 3
- Stórnotkun/ Less Special Load	12 700	14 055	11 915	38 670	50 419	- 23, 3
Áburðarverksmiðjan/ 1) Fertilizer Plant	8 084	9 601	7 407	25 092	36 445	- 31, 2
Sementsverksmiðjan/ 2) Cement Plant	1 024	806	1 071	2 901	3 136	- 7, 5
Keflavíkurflugvöllur/ 2) Keflavík Airport	3 592	3 648	3 437	10 677	10 838	- 1, 5
Almenn notkun/ Interconnected General Load	36 427	31 374	35 218	103 019	93 172	10, 6
Aðrar stöðvar/ Other Plants	541	623	815	1 979	1 650	19, 9
Rjúkandi/Hydro	378	421	560	1 359	1 242	9, 5
Aðrar/Others (2) Diesel	163	202	255	620	408	51, 9
Alls almenn notkun/ Total General Load	36 968	31 997	36 033	104 998	94 822	10, 7
Alls orkuvinnsla á Suðvesturlandi / Total Generation in S.W.Iceland	49 668	46 052	47 948	143 668	145 241	- 1, 1

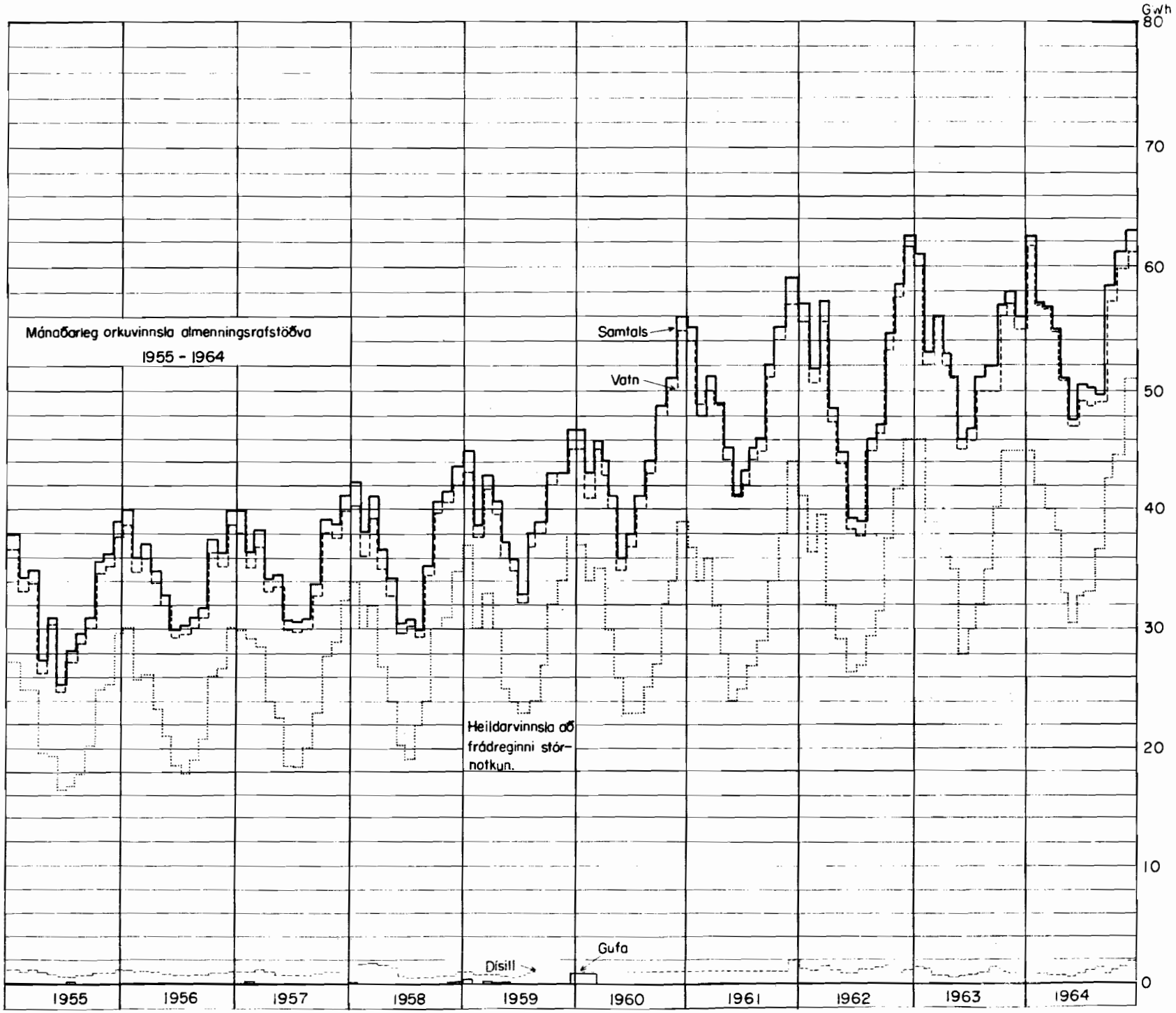
1) + 7% flutn. töp/ + 7% Transmission Losses

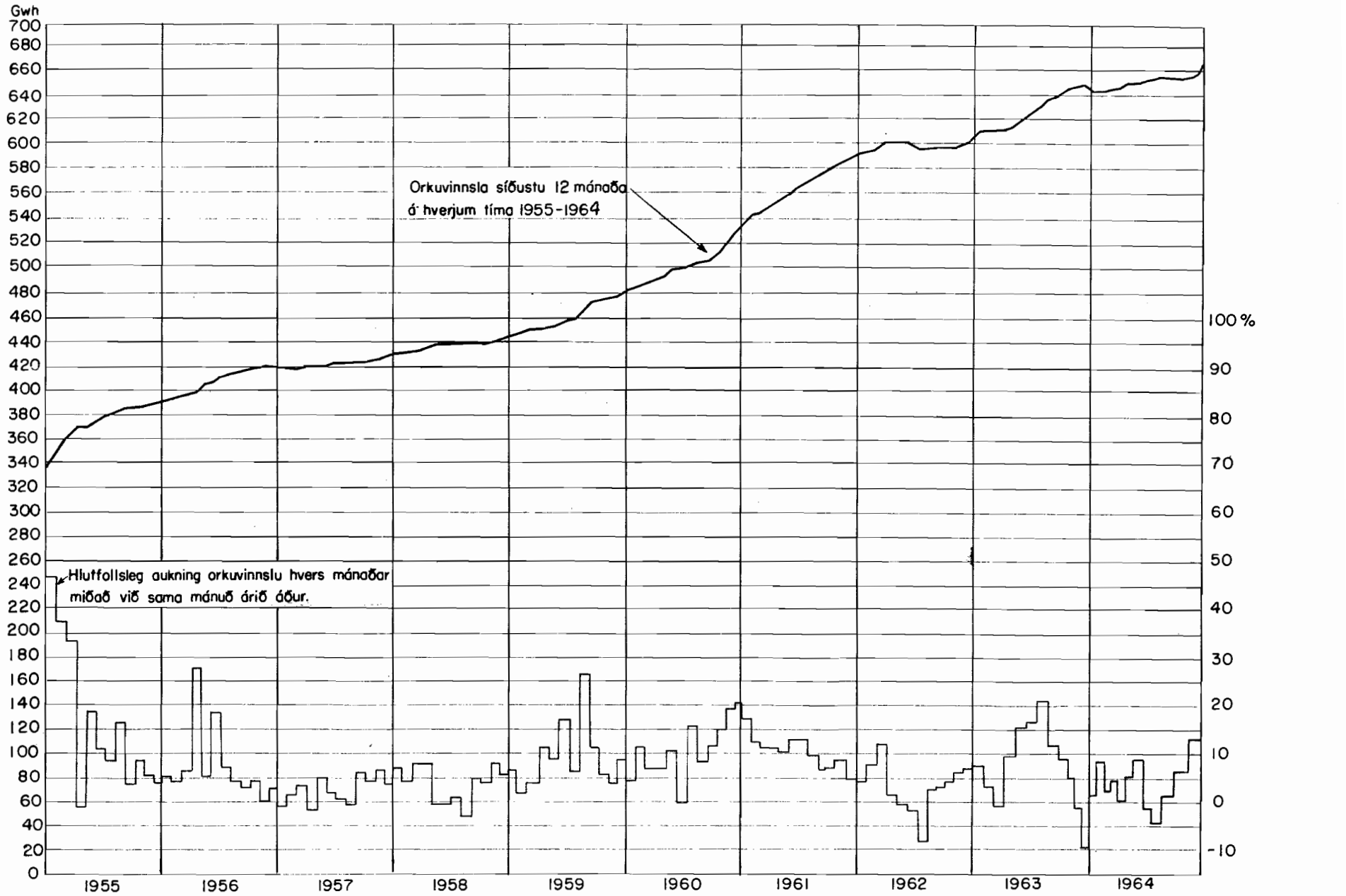
2) + 10% " " / + 10% " "

ORKUVER, AÐFLUTNINGSLÍNUR OG HELZTU AÐVEITUSTÖÐVAR Á ÍSLANDI
POWER STATIONS, TRANSMISSION LINES AND MAIN SUBSTATIONS IN ICELAND
31.12.1964

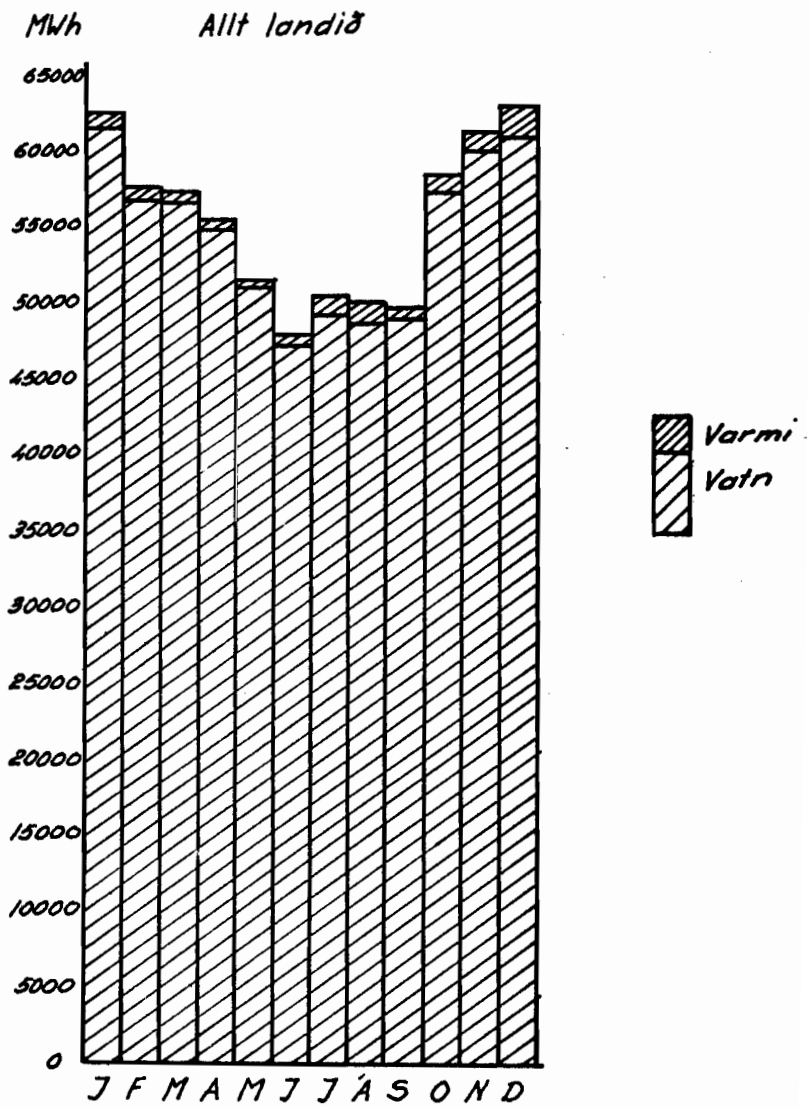



GWh
MW
ALMENNINGSRAFSTÖÐVAR
Public Power Plants 1904-1964
1. Vatnsafl: Orkuvinnsla GWh/ári
Hydro Power: Production GWh/year
2. Varmaafl: Orkuvinnsla GWh/ári
Thermal Power: Production GWh/year
3. Vatnsafl: Ástimplað afl: MW
Hydro Power: Capacity: MW
4. Varmaafl: Ástimplað afl: MW
Thermal Power: Capacity: MW
1.
2.
3.
4.
700
650
600
550
500
450
400
350
300
250
200
150
100
50
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
1900
'05
'10
'15
'20
'25
'30
'35
'40
'45
'50
'55
'60
'65
'70

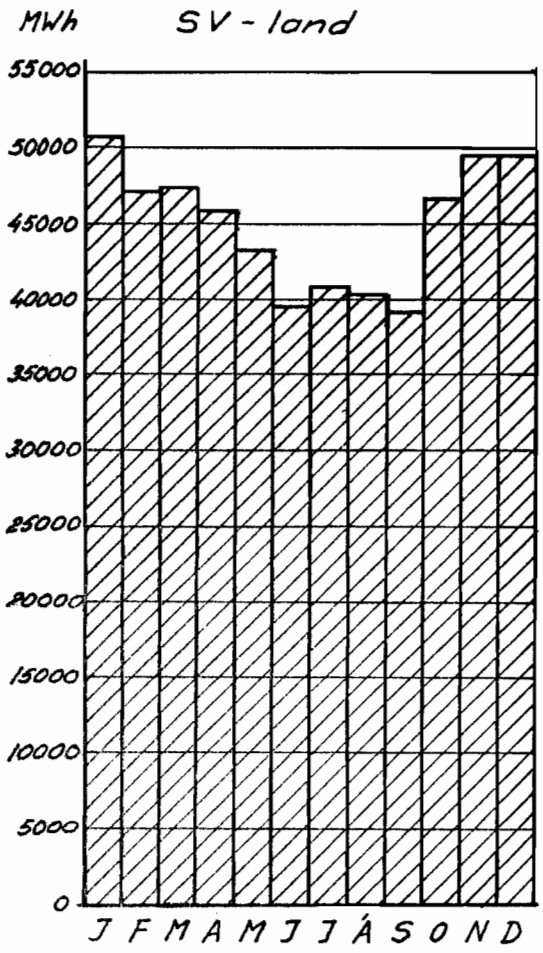

Mánaðarleg orkuvinnsla almenningsrafstöðva
1955 - 1964
Samtals
Vatn
Heildarvinnsla að frádreginni stór-notkun.
Dísil
Gufa
GWh
80
70
60
50
40
30
20
10
0
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964

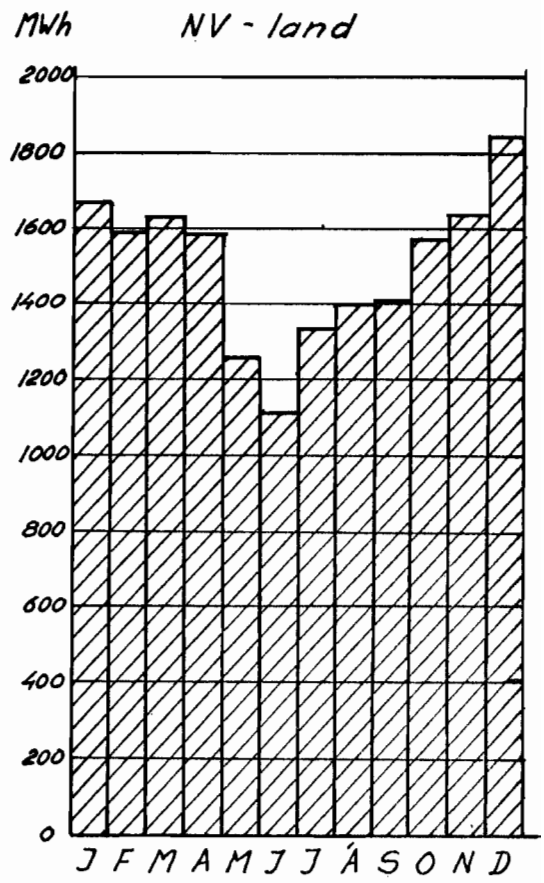

Gwh
700
680
660
640
620
600
580
560
540
520
500
480
460
440
420
400
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
Orkuvinnsla síðustu 12 mánaða
á hverjum tíma 1955-1964
Hlutfallsleg aukning orkuvinnslu hvers mánaðar
miðað við sama mánuð árið áður.
100 %
90
80
70
60
50
40
30
20
10
0
-10
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964

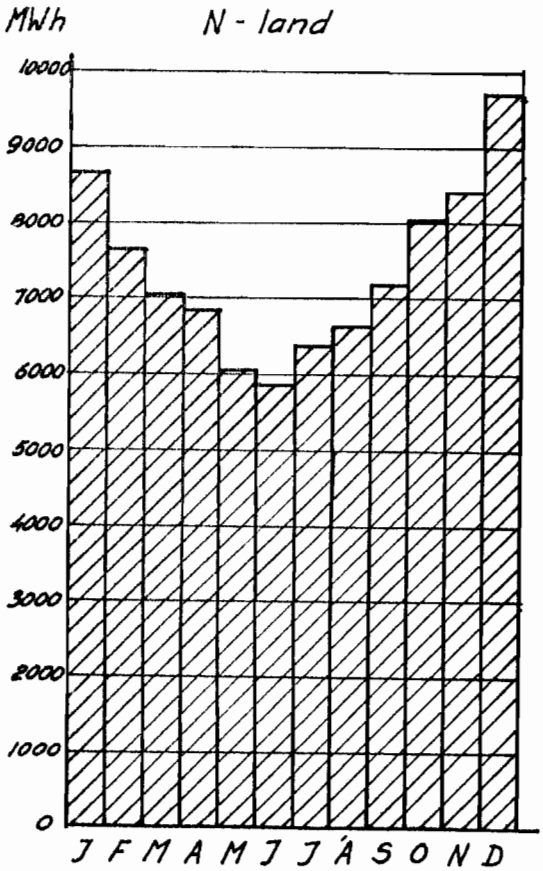
MÁNAÐARLEG ORKUVINNSLA 1964

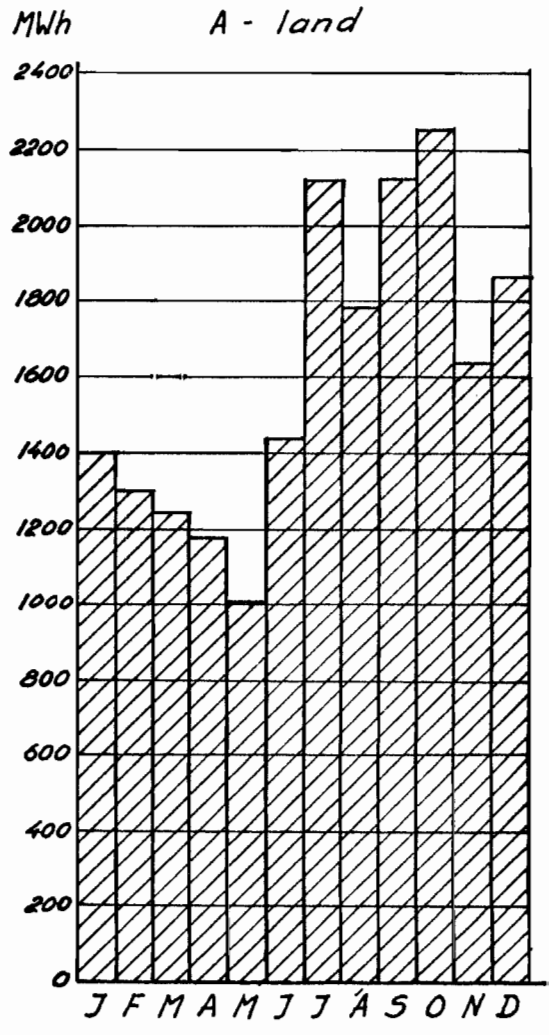


MÁNAÐARLEG ORKUVINNSLA 1964

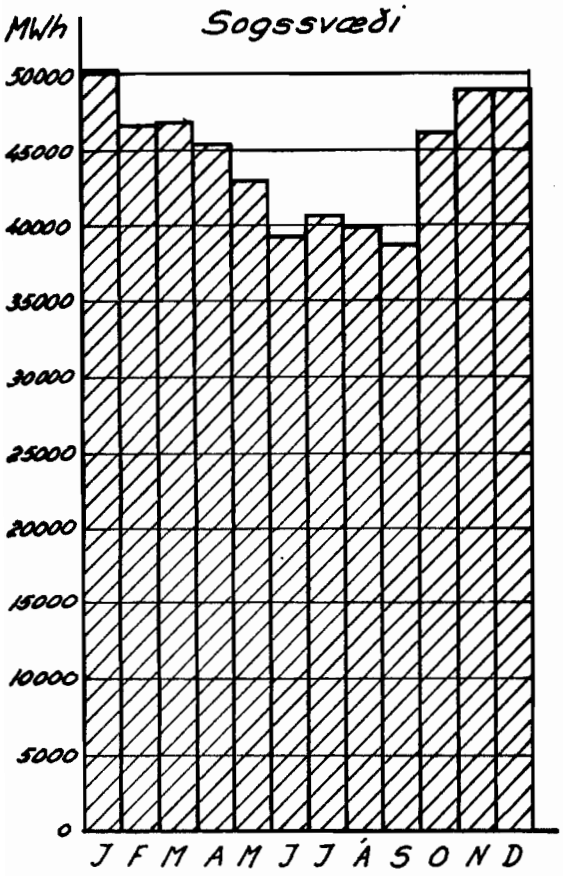


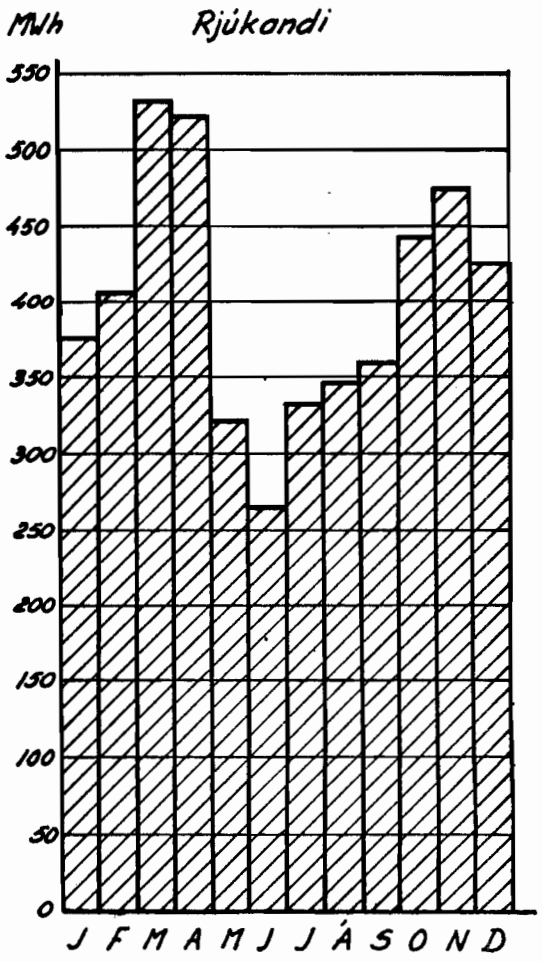


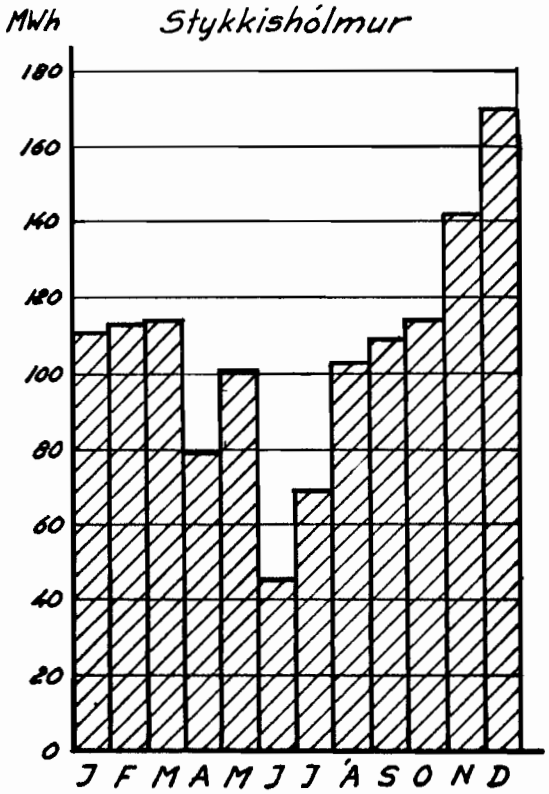




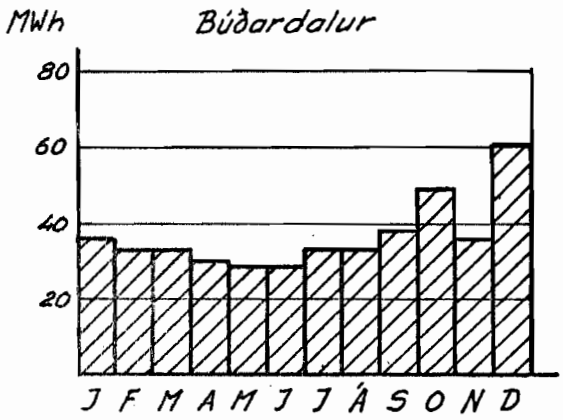
MÁNAÐARLEG ORKUVINNSLA 1964

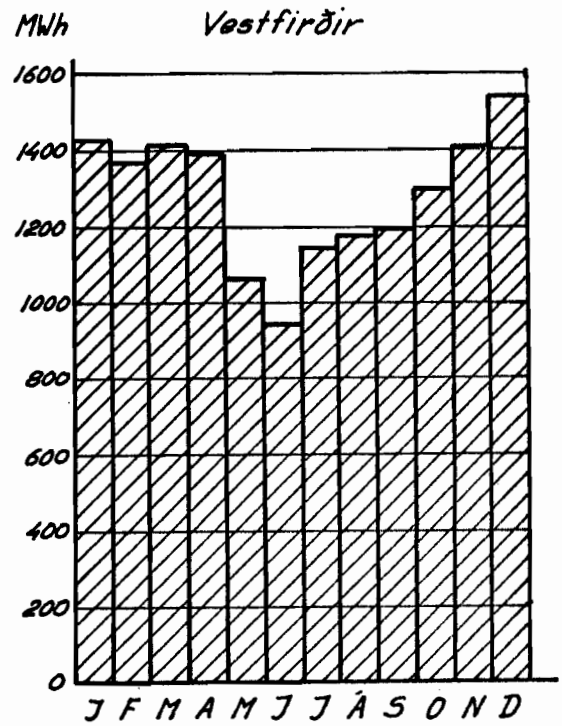


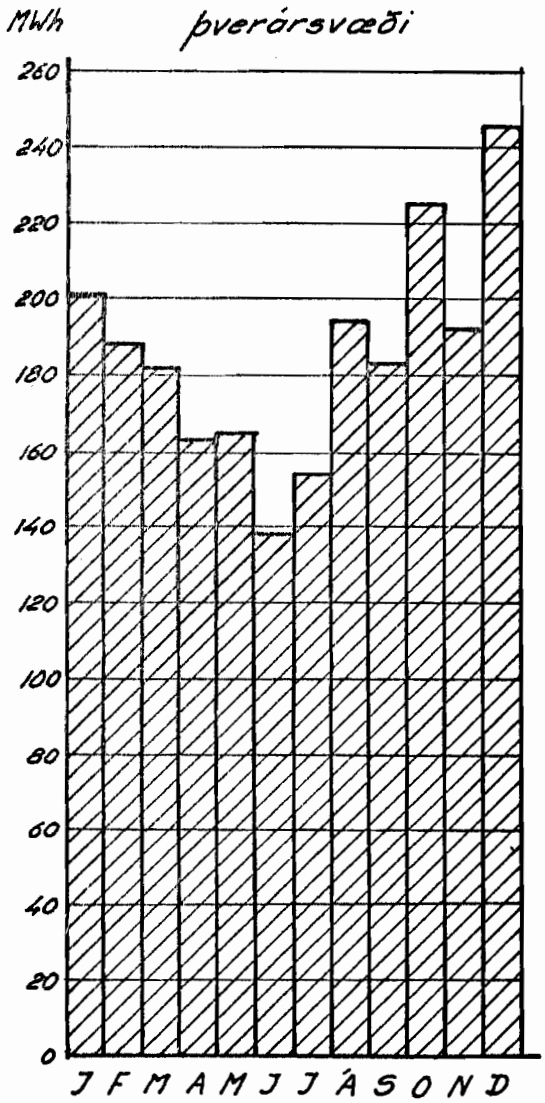




MÁNAÐARLEG ORKUVINNSLA 1964

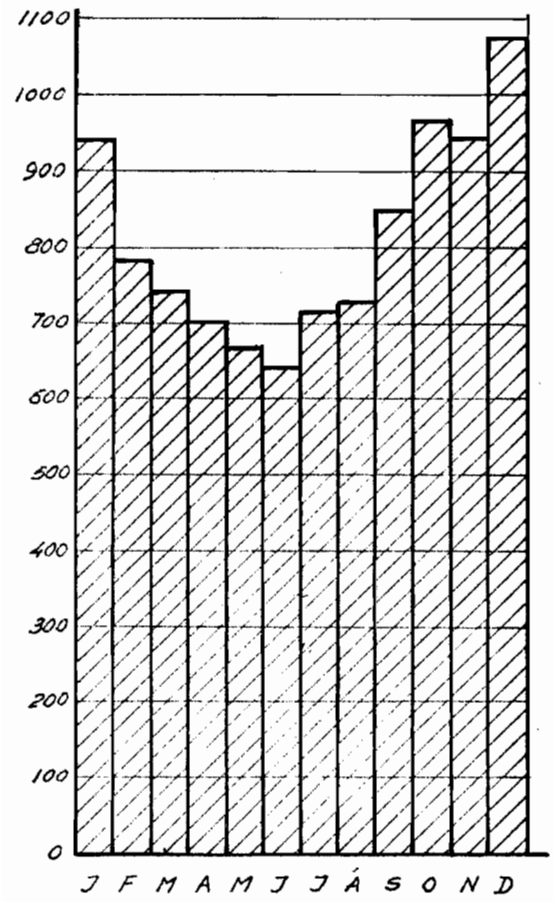




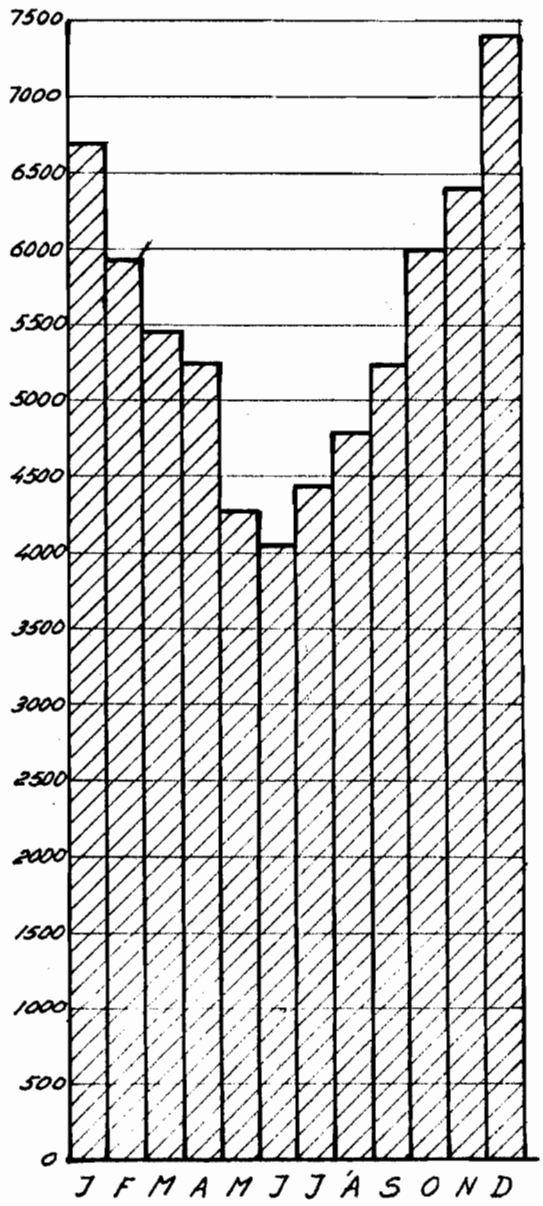


MÁNAÐARLEG ORKUVINNSLA 1964

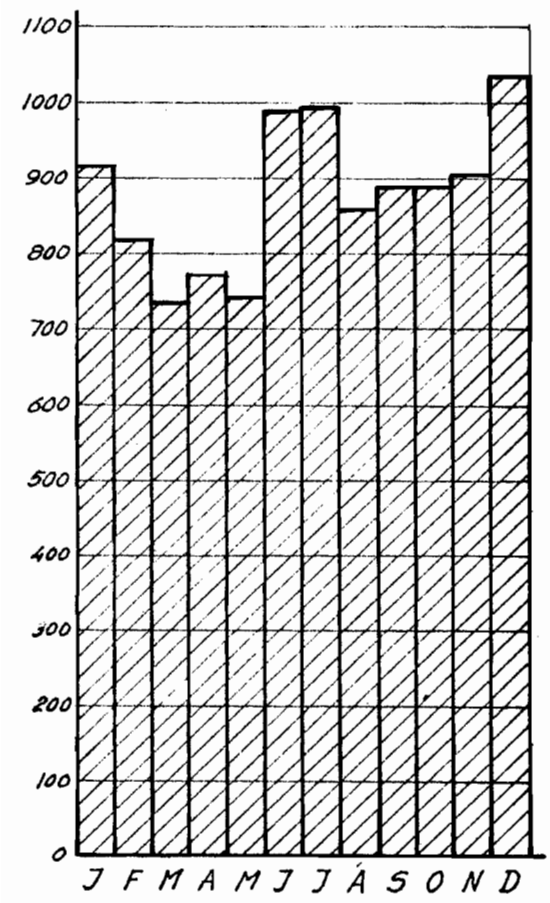
MWh Laxárvatn - Gönguskarðsá



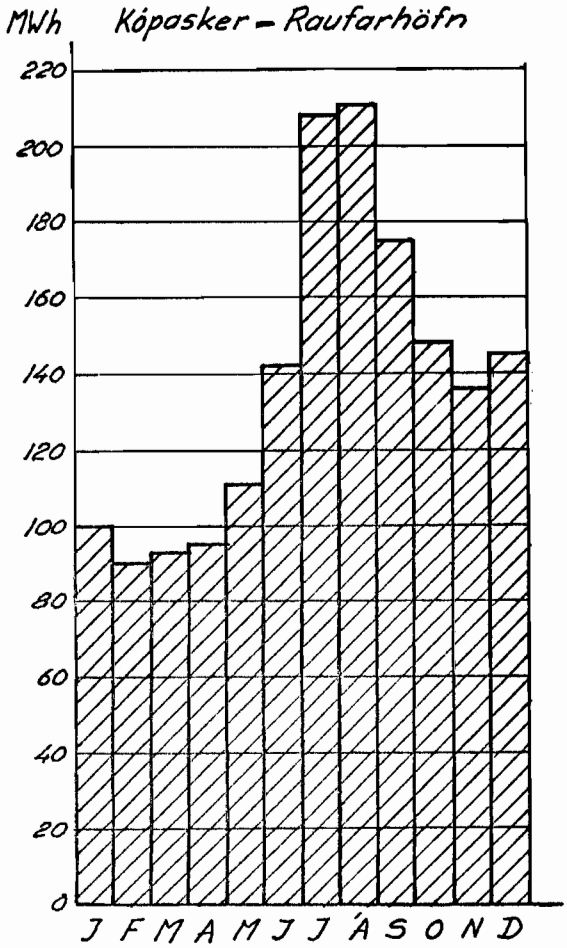
MWh Laxársvæði

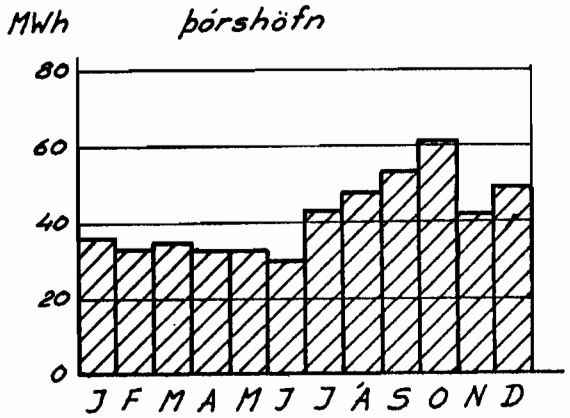


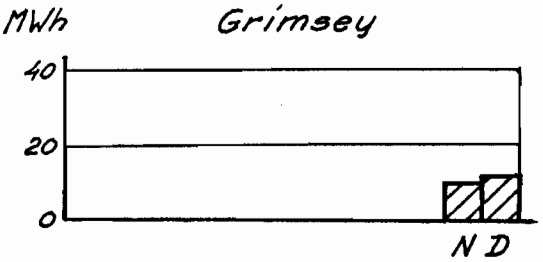
MWh Skeiðsfoss



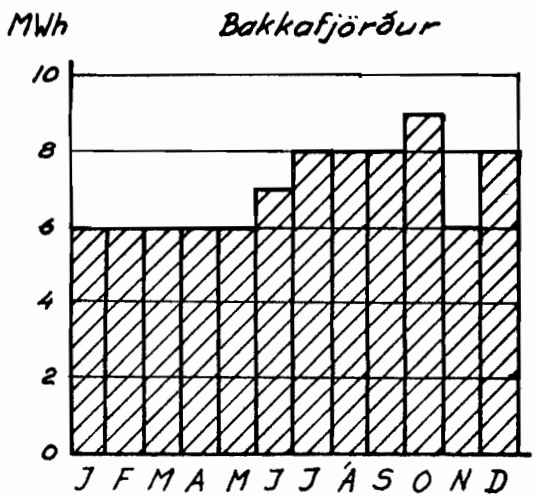
MÁNAÐARLEG ORKUVINNSLA 1964

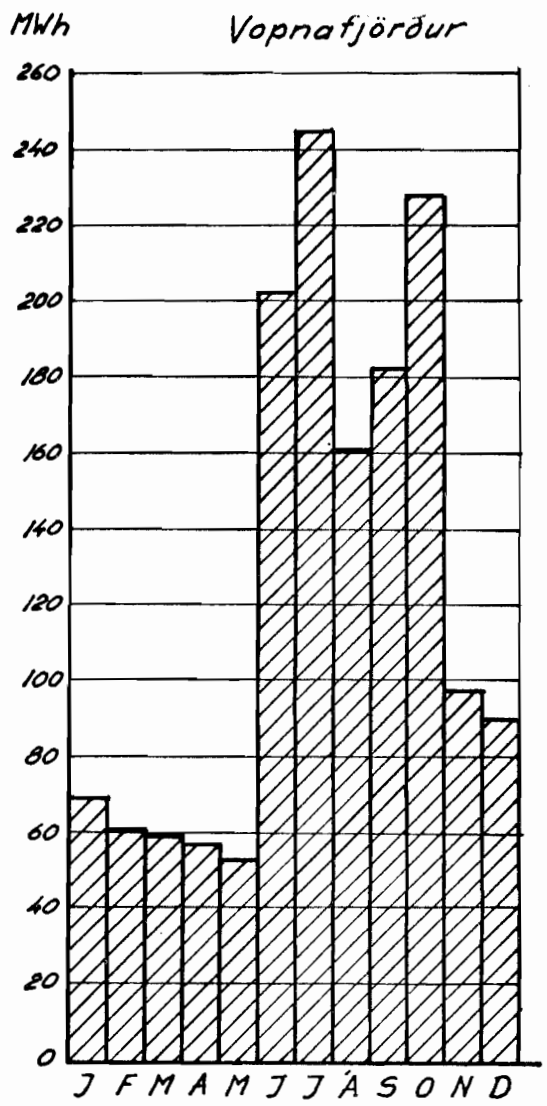


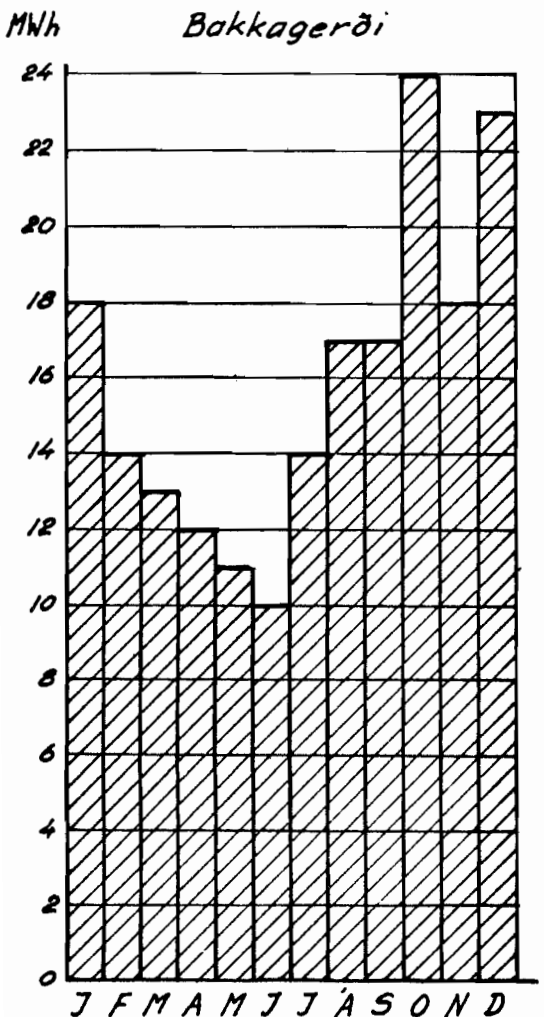


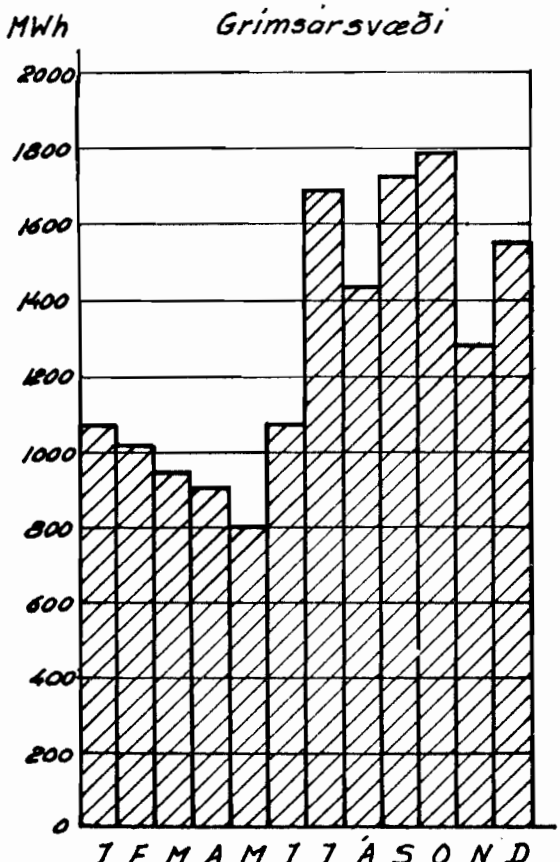


MÁNAÐARLEG ORKUVINNSLA 1964

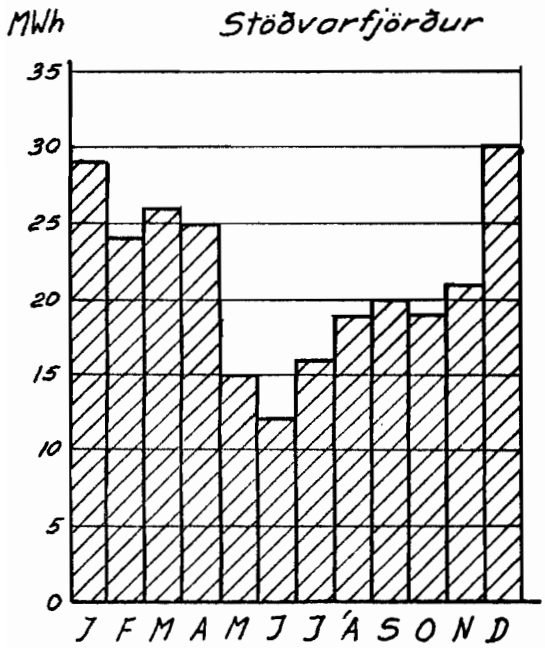


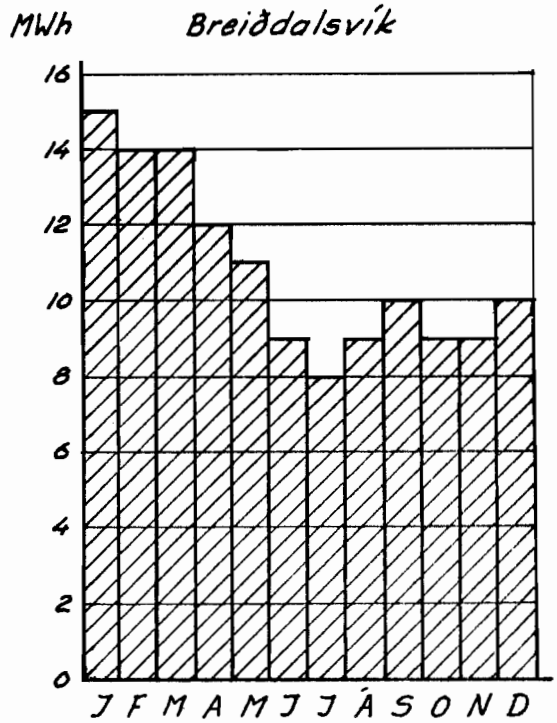


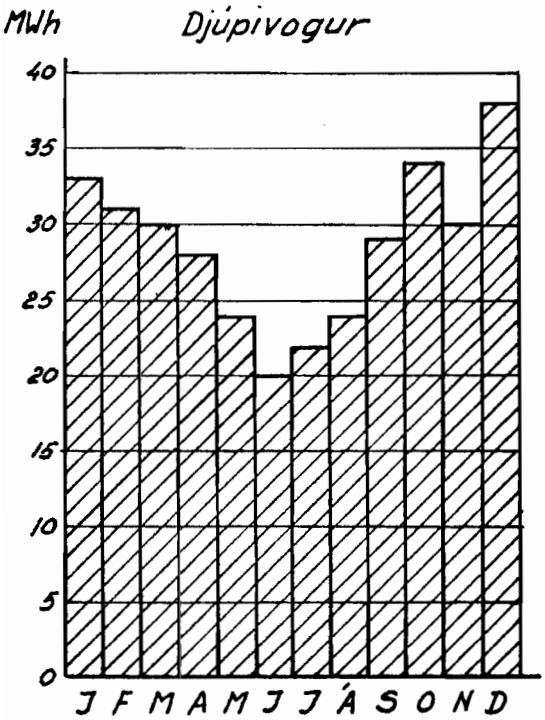


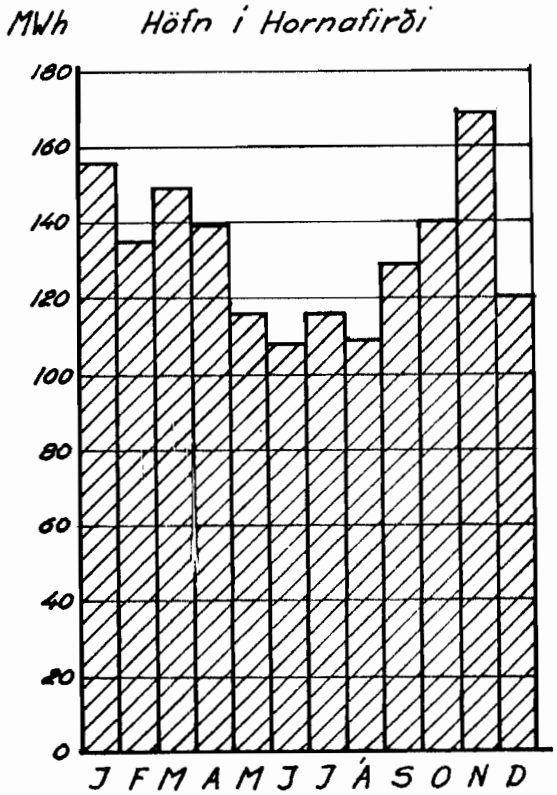


MÁNAÐARLEG ORKUVINNSLA 1964

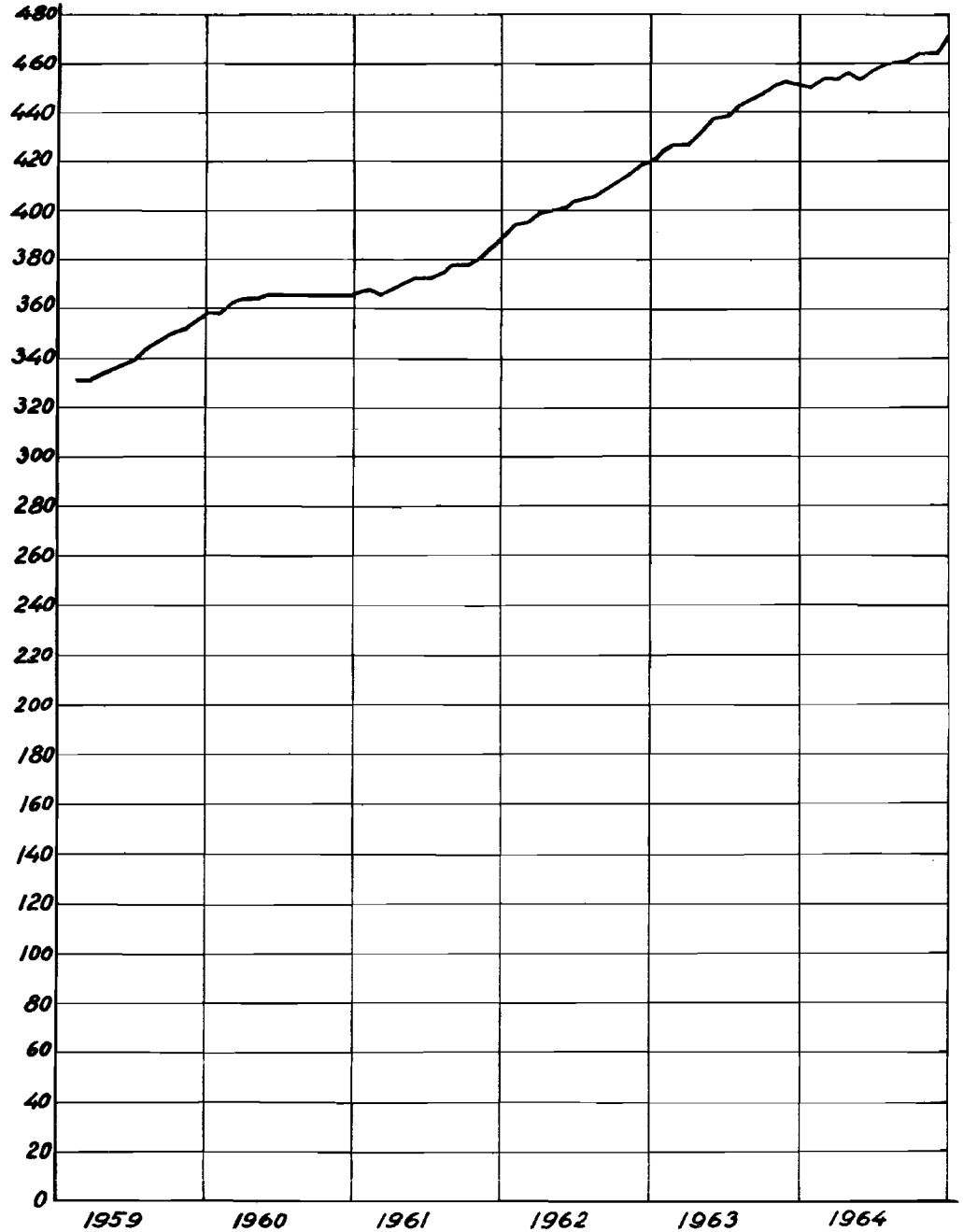




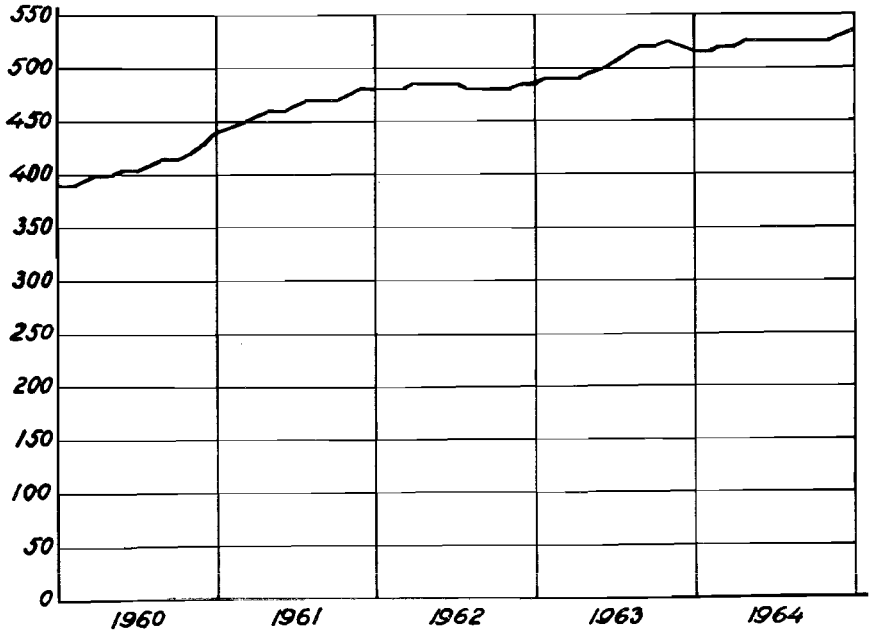




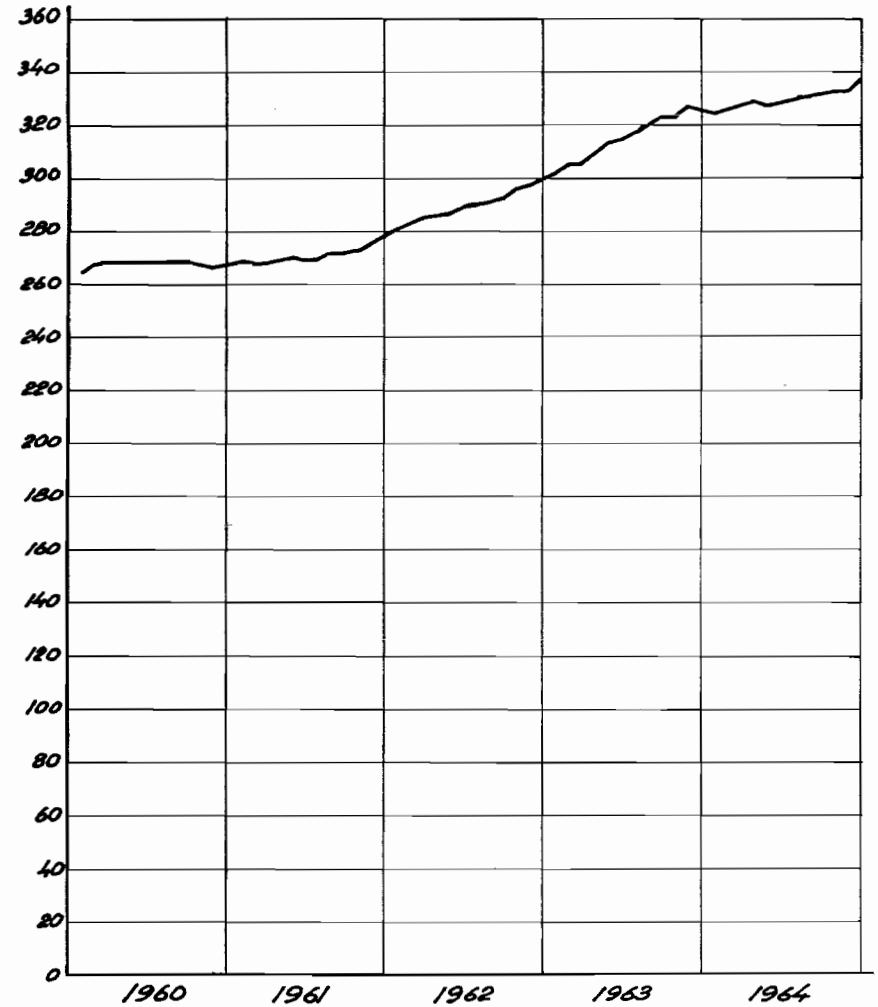
Almenn orkunotkun (að frádreginni stórnotkun), allt landið,
GWh síðustu 12 mánaða á hverjum tíma 1959-1964



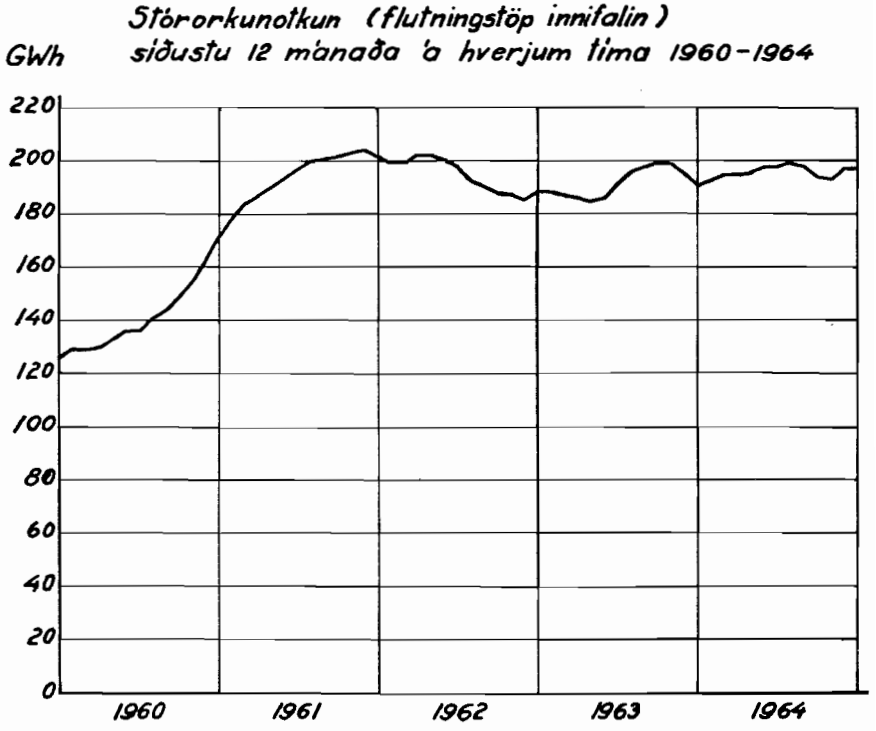
Orkuvinnsla á Sogssvæðinu
GWh síðustu 12 mánaða á hverjum tíma 1960-1964



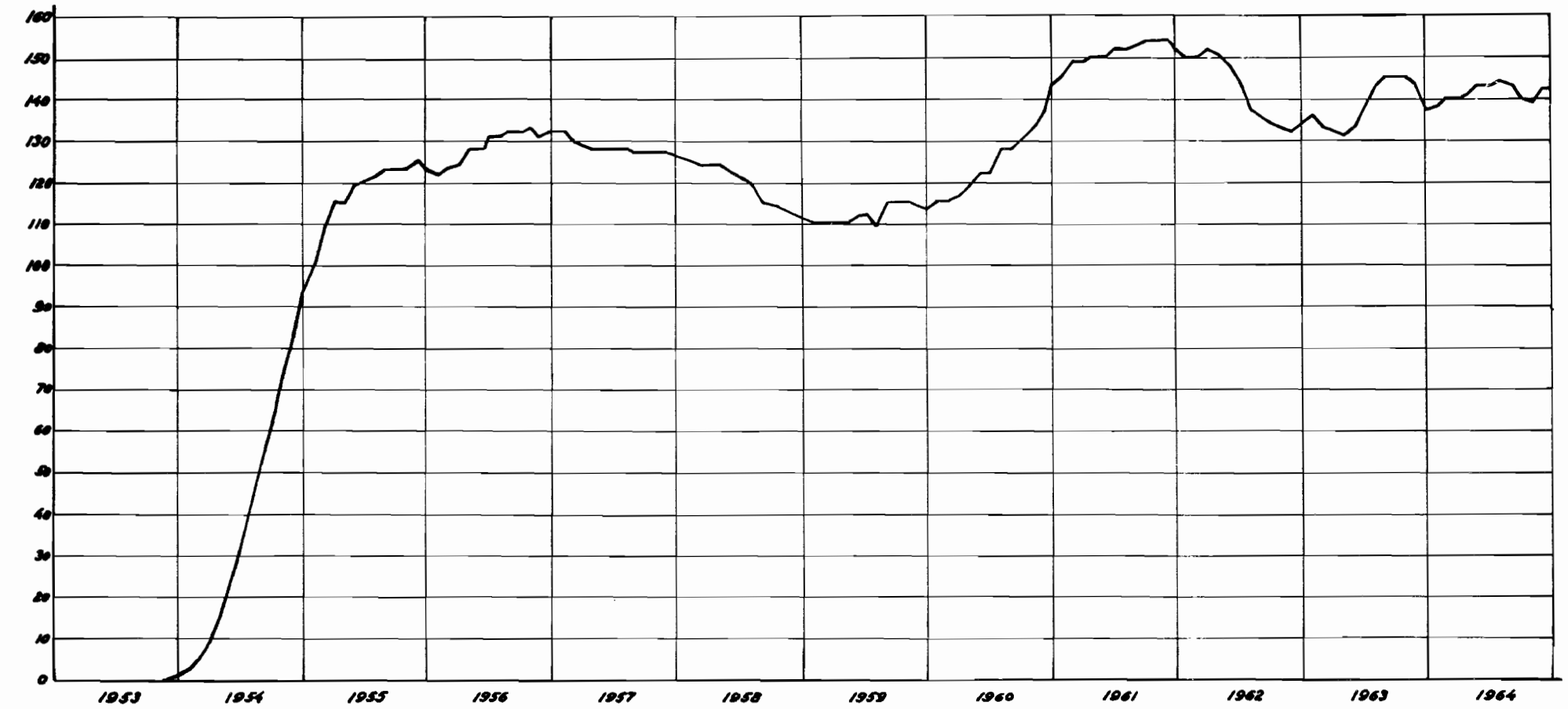
Almenn orkunotkun á Sogssvæðinu
síðustu 12 mánaða á hverjum tíma 1960-1964



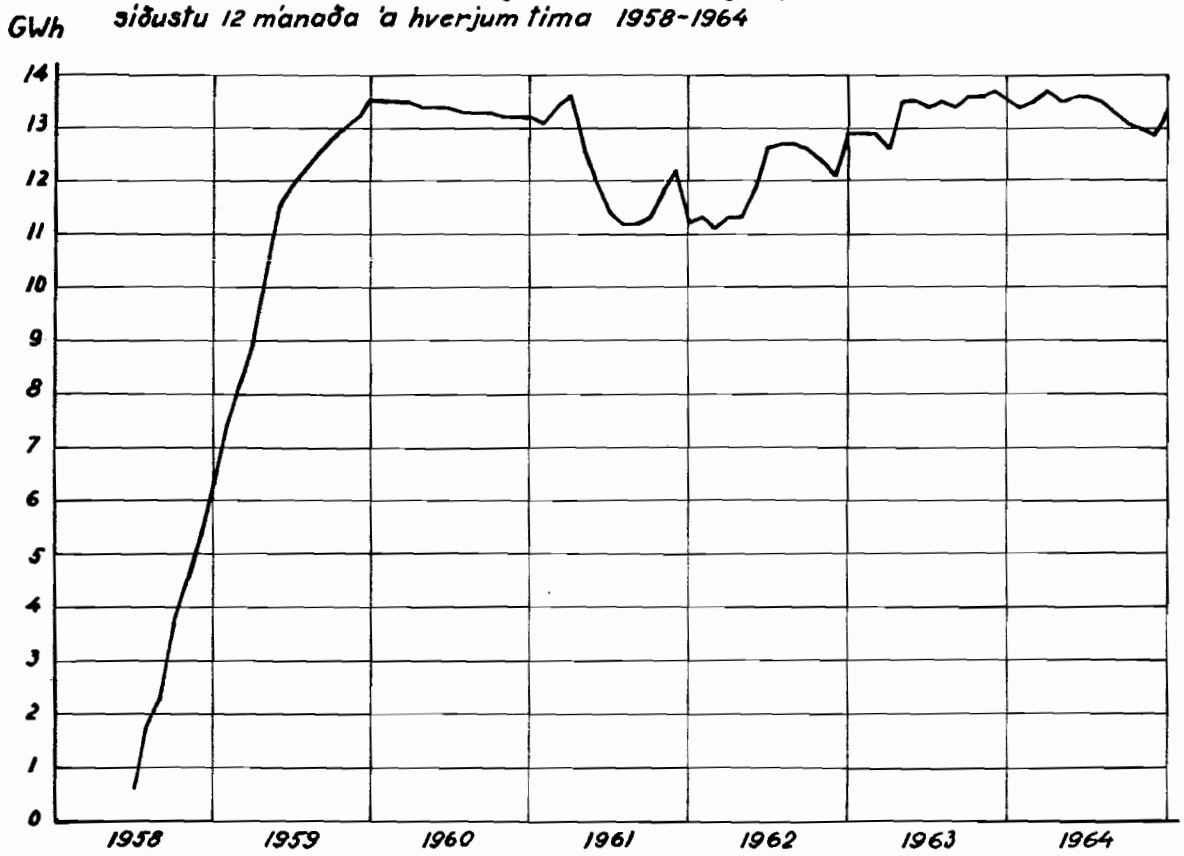
Stórorkunotkun (flutningstöp innifalin)
síðustu 12 mánaða á hverjum tíma 1960-1964



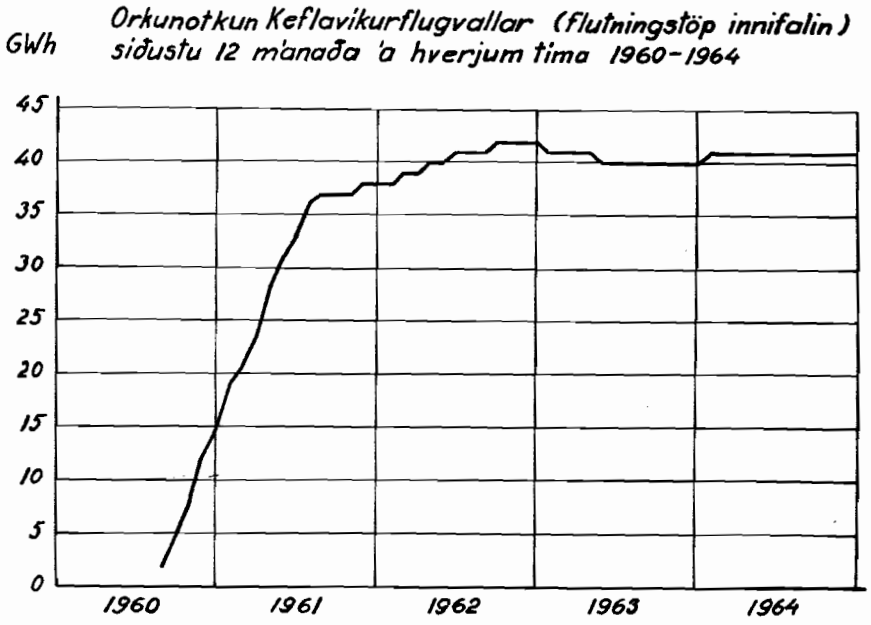
Orkunotkun Áburðarverksmiðjunnar
síðustu 12 mánaða á hverjum tíma 1953-1964 (flutningstöp innifalin)



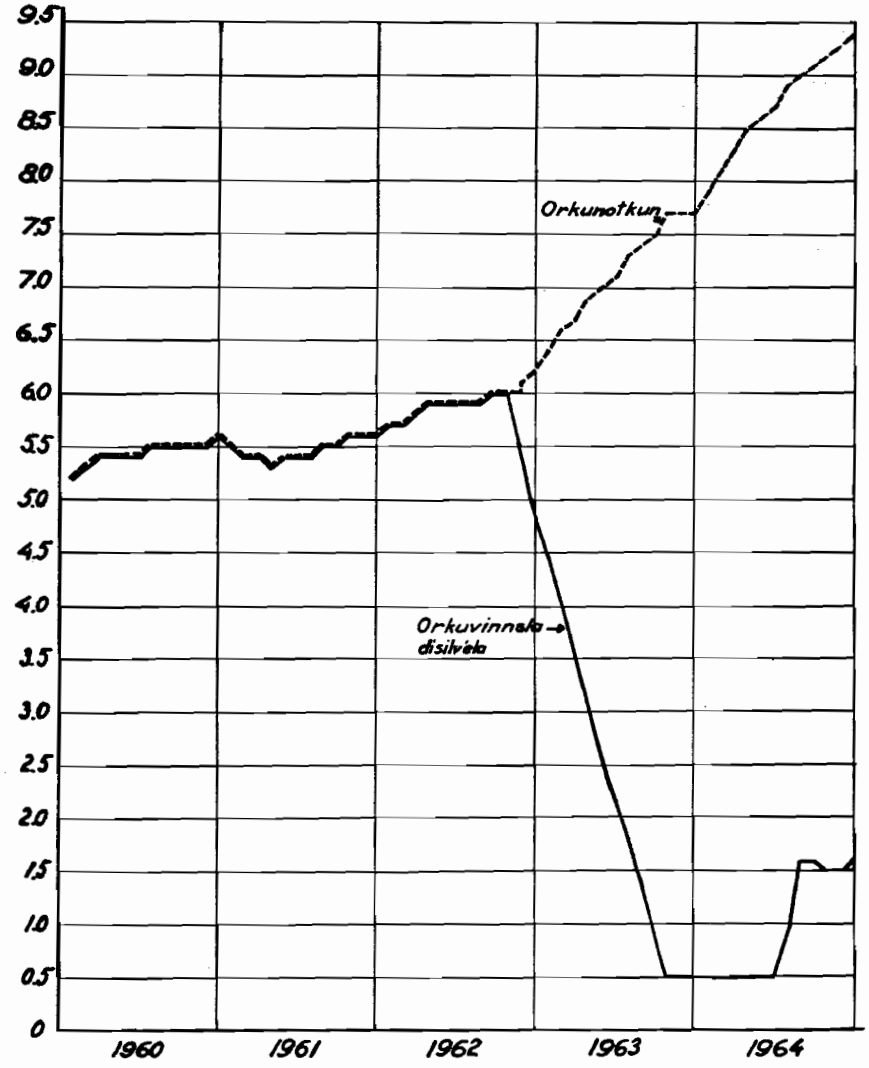
Orkunotkun Sementverksmiðjunnar (flutningstöp innifalin)
síðustu 12 mánaða 'a hverjum tima 1958-1964



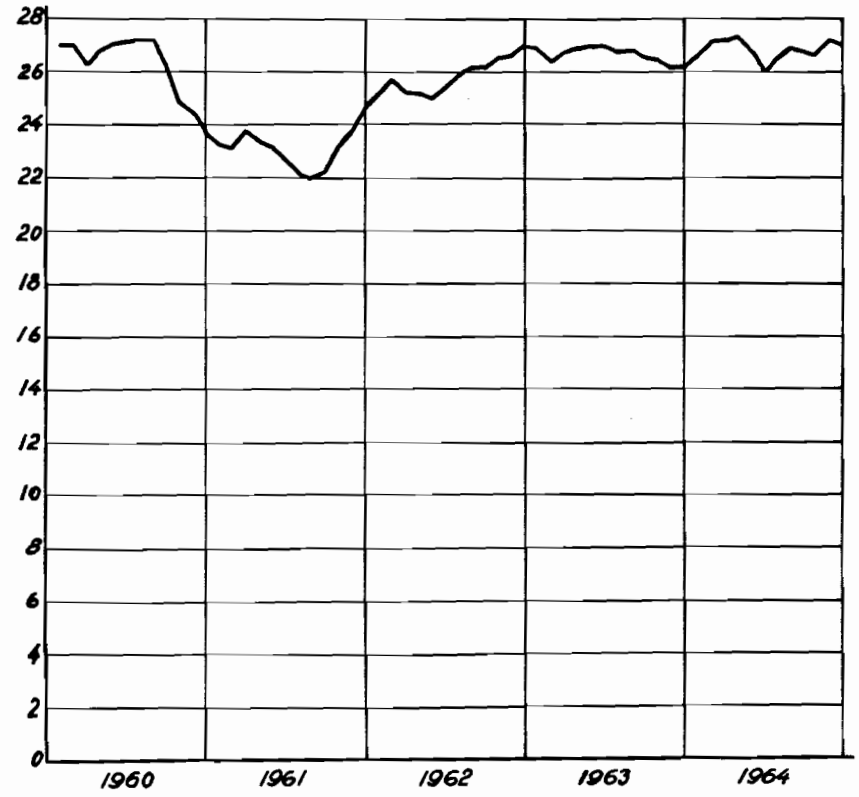
Orkunotkun Keflavíkurflugvallar (flutningstöp innifalin)
síðustu 12 mánaða 'a hverjum tima 1960-1964



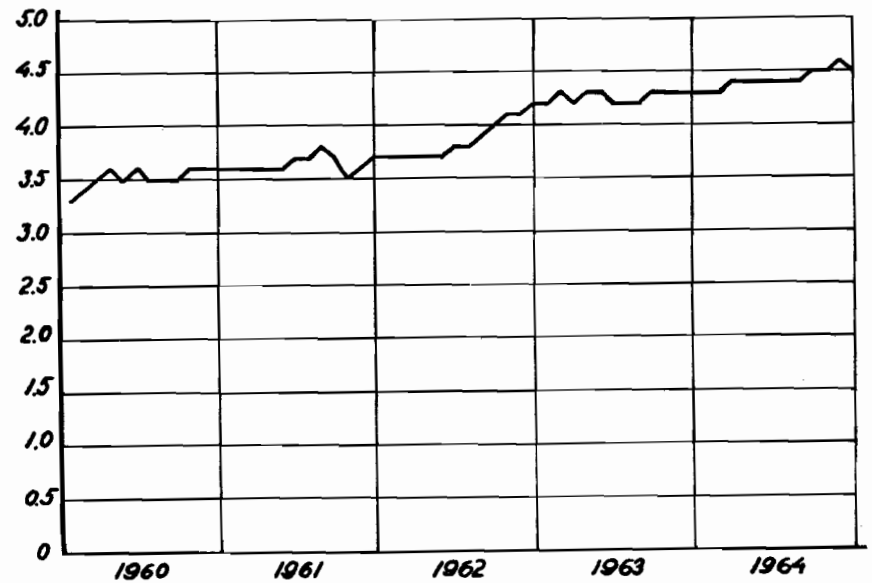
Orkunotkun Vestmannaeyja
GWh síðustu 12 mánaða á hverjum tíma 1960-1964



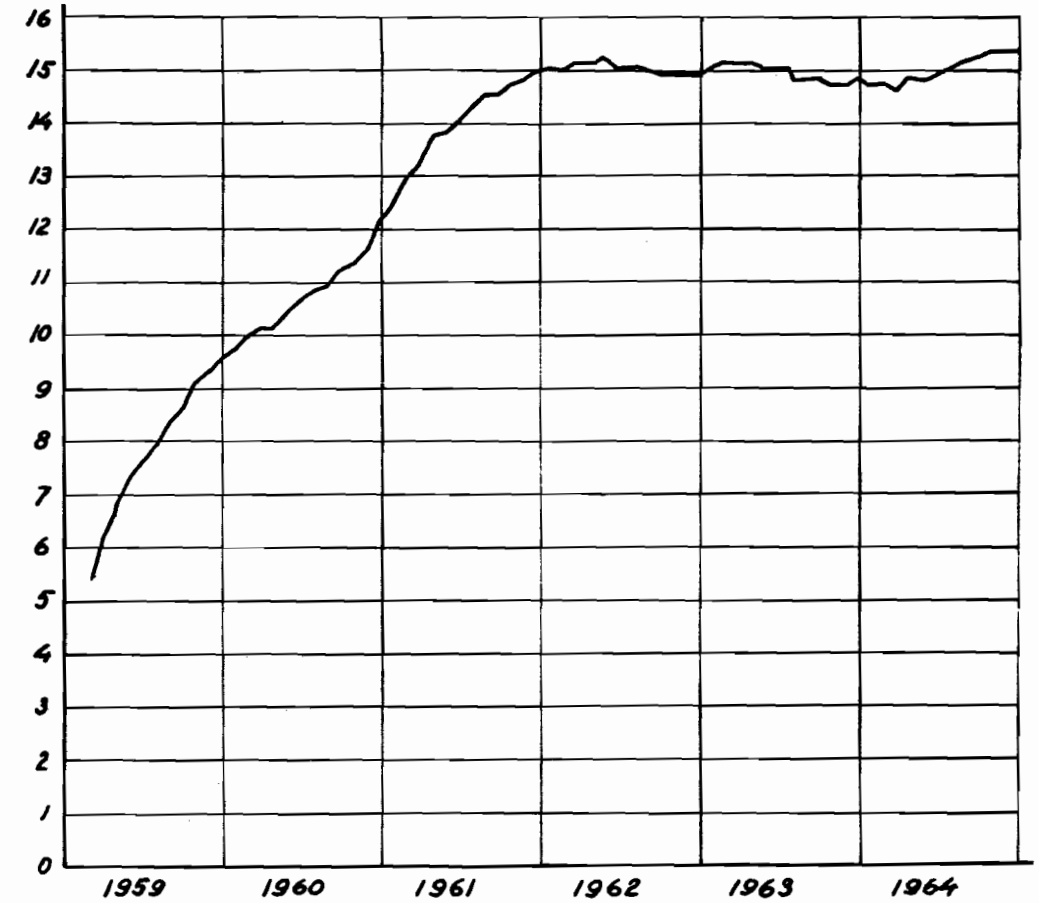
Orkuvinnsla Andakílsárvirkjunar
GWh síðustu 12 mánaða á hverjum tíma 1960-1964



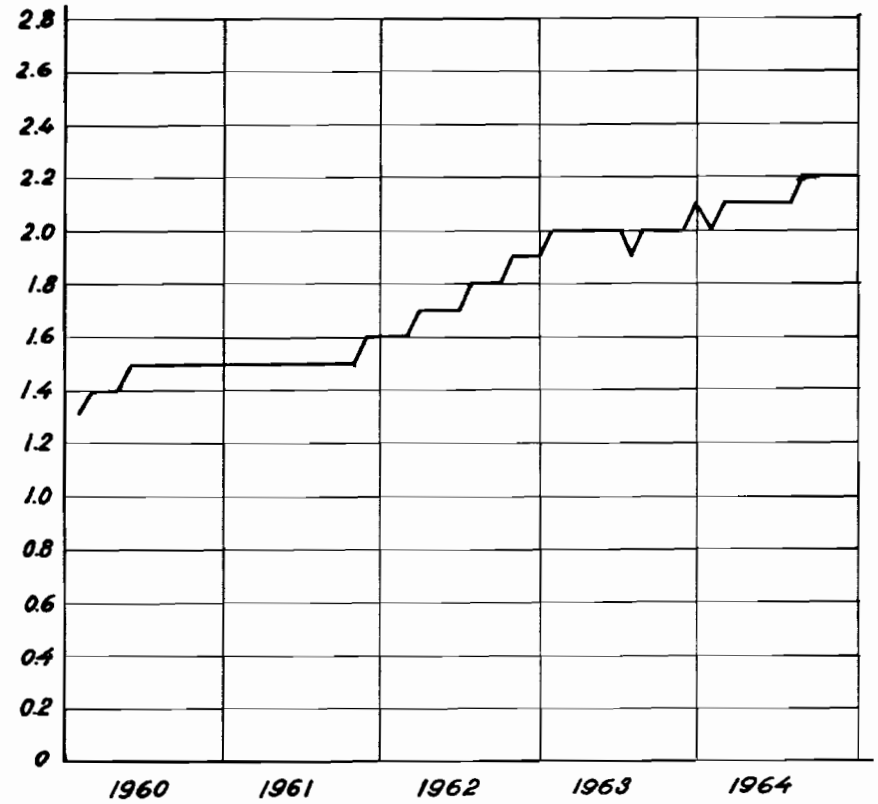
Orkuvinnsla Rjúkandavirkjunar
síðustu 12 mánaða á hverjum tíma 1960–1964



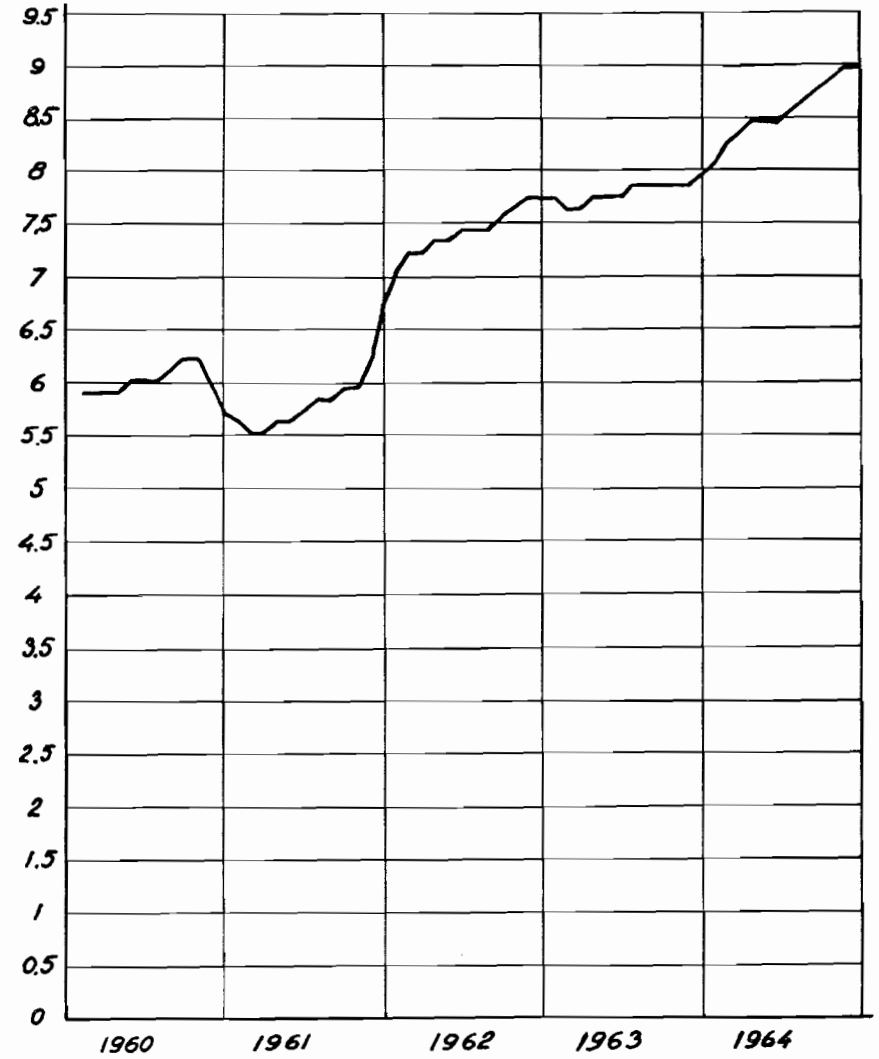
Orkuvinnsla samtengdra vatnsaflsstöðva á Vestfjörðum
síðustu 12 mánaða á hverjum tíma 1959–1964



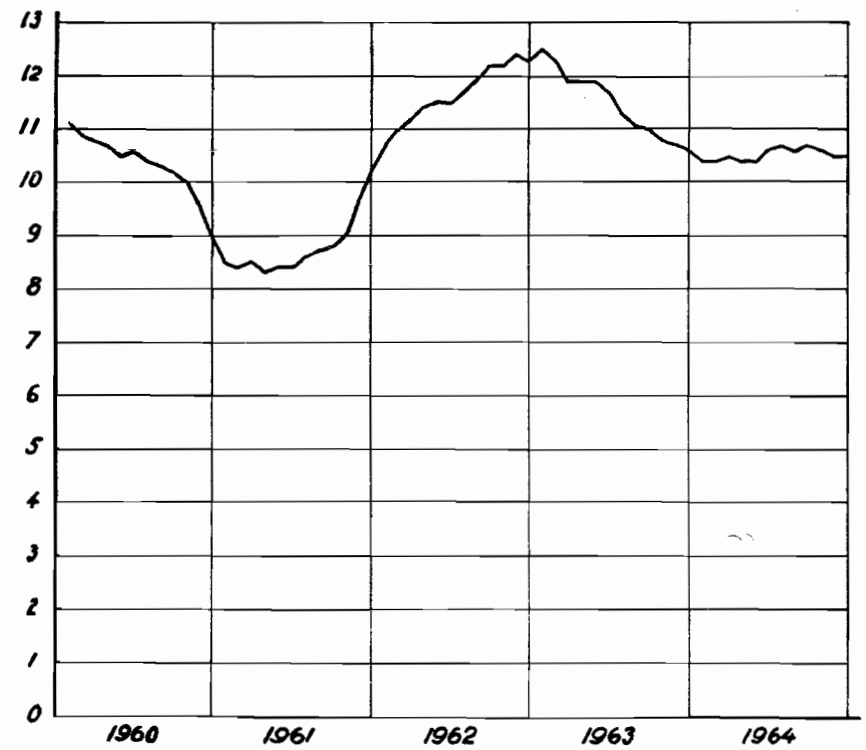
Orkuvinnsla þver'árvirkjunar
GWh síðustu 12 mánaða á hverjum tíma 1960–1964



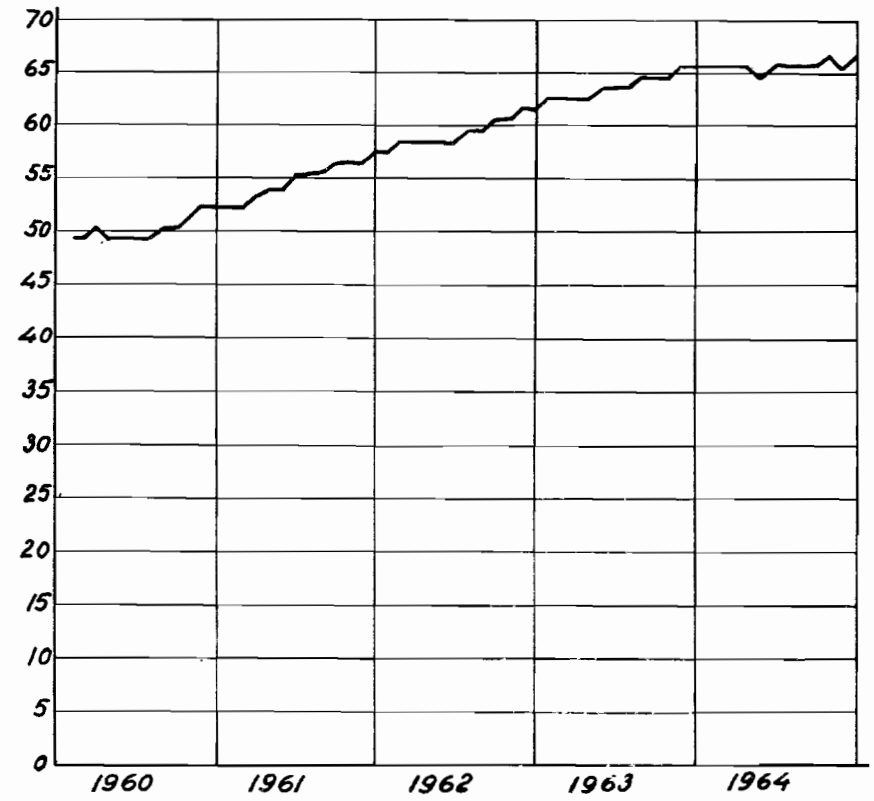
Orkuvinnsla Laxárvatns- og Gönguskarðsárvirkjana
GWh síðustu 12 mánaða á hverjum tíma 1960–1964



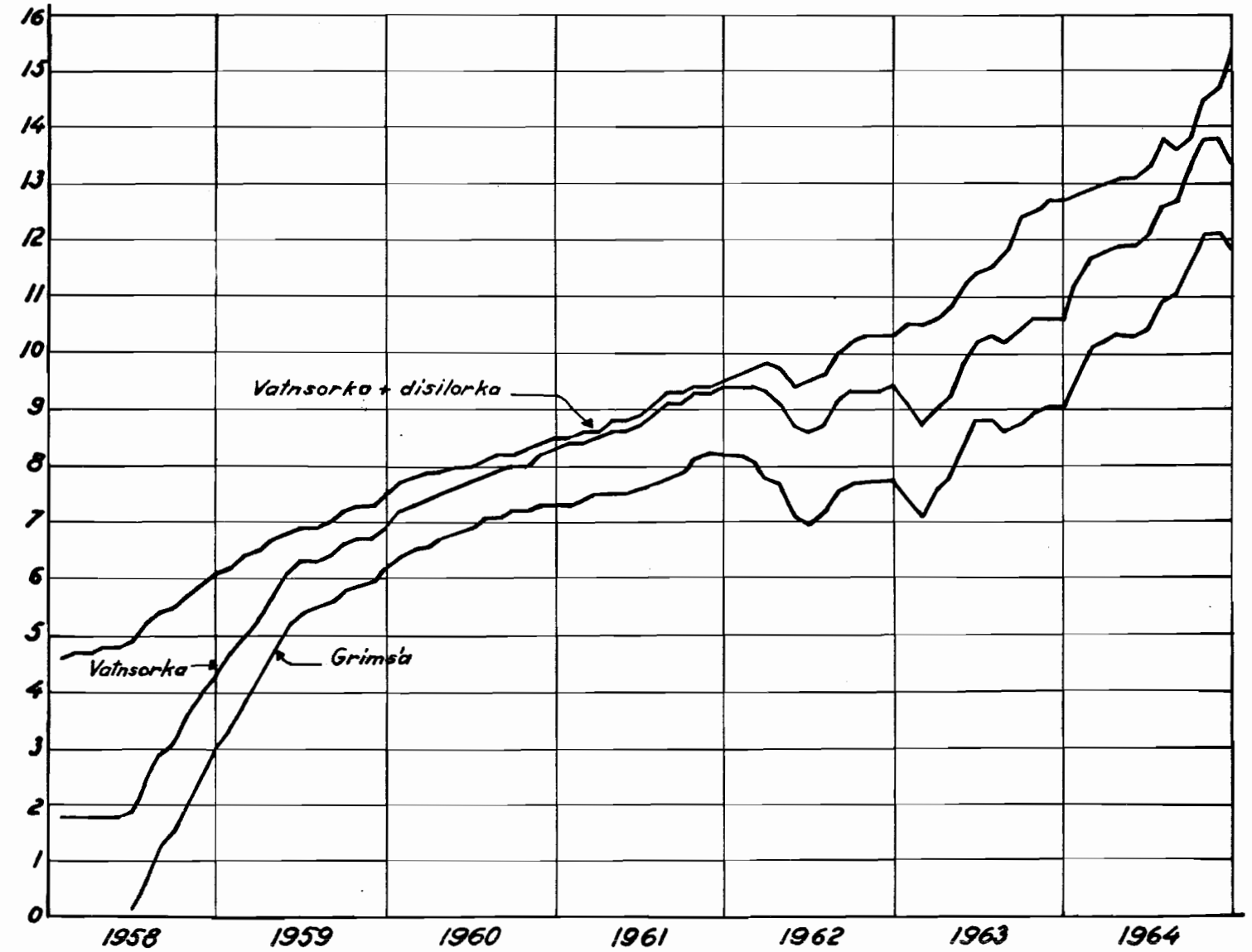
Orkuvinnsla Skeiðfoss- og Garðsárvirkjunar
síðustu 12 mánaða á hverjum tíma 1960-1964

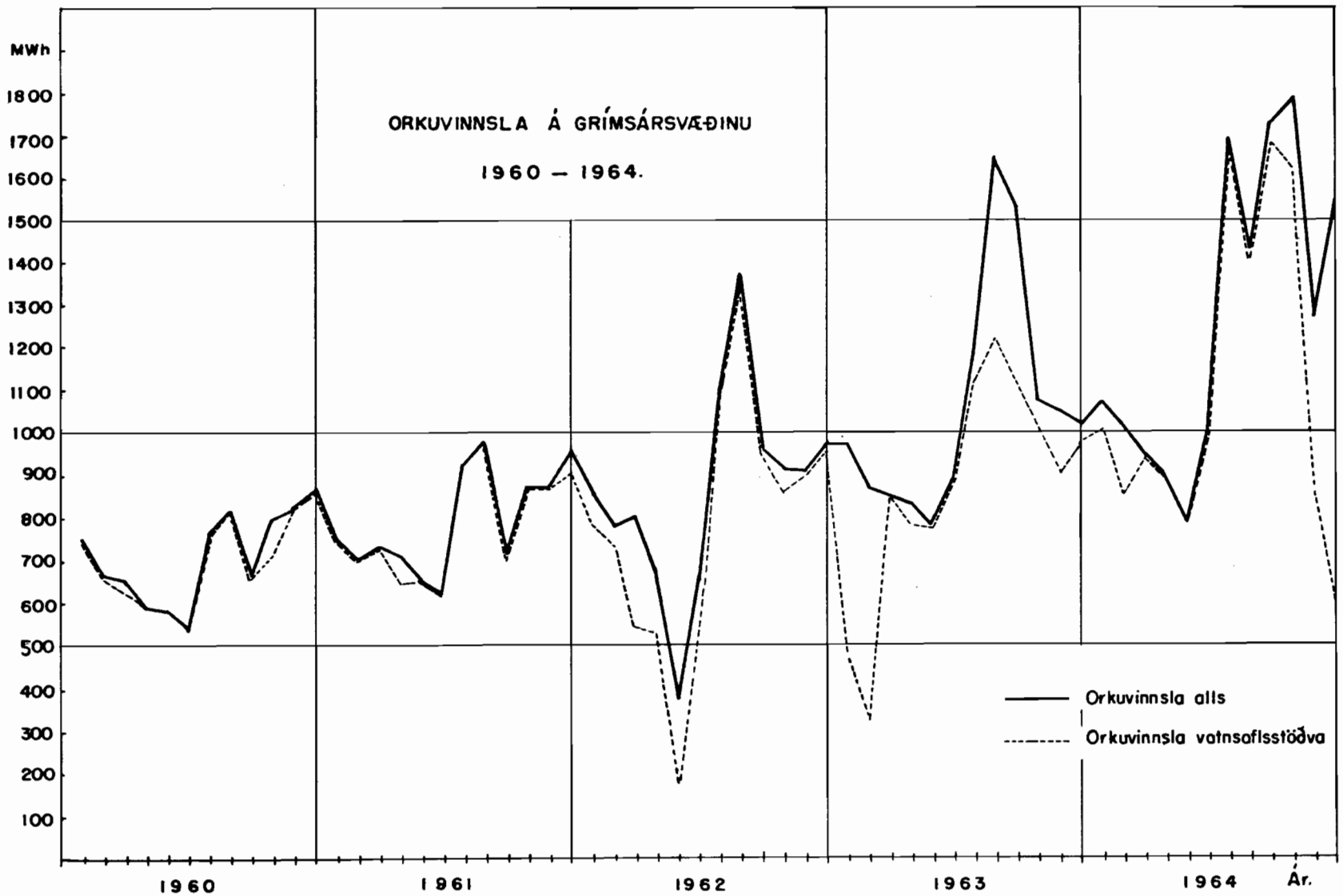


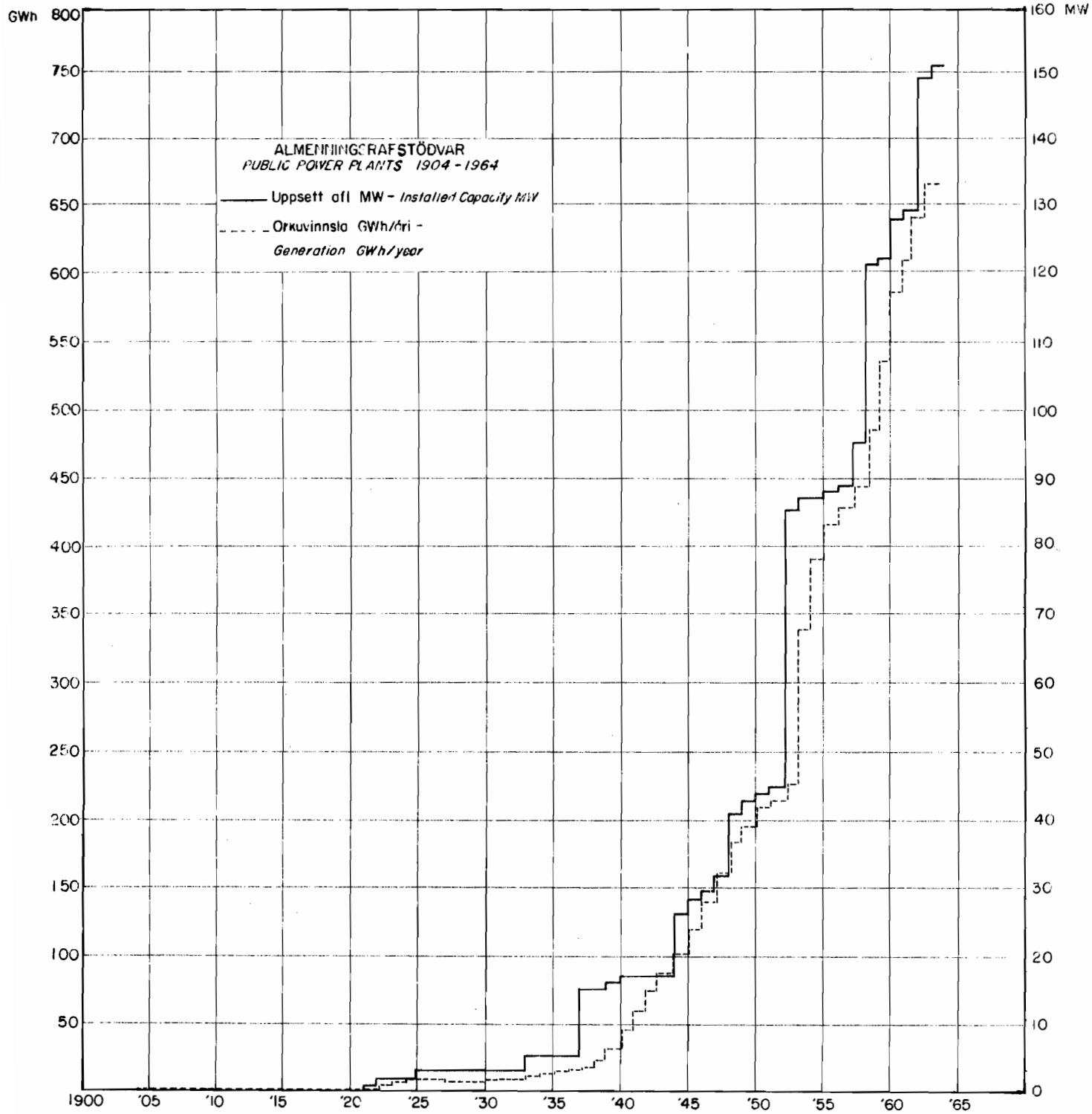
Orkuvinnsla Laxárvirkjunar og varastöðvar
síðustu 12 mánaða á hverjum tíma 1960-1964



Orkuvinnsla Grimsárvæðis
síðustu 12 mánaða á hverjum tíma 1958-1964




MWh
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
ORKUVINNSLA Á GRÍMSÁRSVÆÐINU
1960 – 1964.
Orkuvinnsla alls
Orkuvinnsla vatnsaflsstöðva
1960
1961
1962
1963
1964
Ár.


ALMENNINGSRAFSTÖDVAR
PUBLIC POWER PLANTS 1904 - 1964
Uppsett afl MW - Installed Capacity MW
Orkuvinnsla GWh/ári - Generation GWh/year
GWh
MW
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
160
150
140
130
120
110
100
90
80
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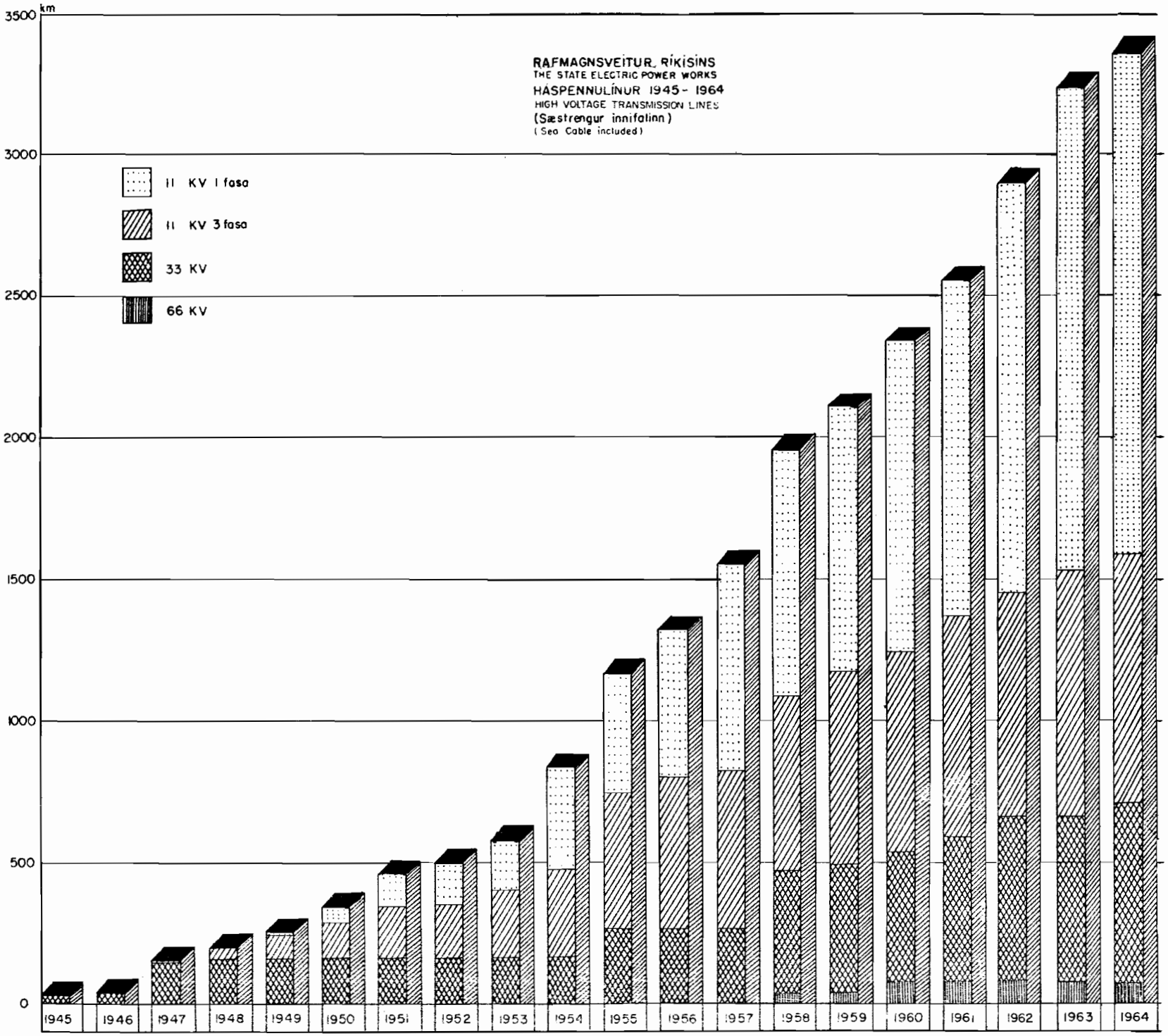

km
3500
3000
2500
2000
1500
1000
500
0
RAFMAGNSVEITUR RÍKISINS
THE STATE ELECTRIC POWER WORKS
HÁSPENNULÍNUR 1945 - 1964
HIGH VOLTAGE TRANSMISSION LINES
(Sæstrengur innifalinn)
(Sea Cable included)
11 KV 1 fasa
11 KV 3 fasa
33 KV
66 KV
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964

SOME INFORMATION ABOUT ICELAND

ITS WATER RESOURCES AND ENERGY POTENTIAL

1. Statistical Data

1.1 Geographical Data

Latitude	63°24´ - 66°32´, N
Longitude (Greenwich)	13°30´ - 24°32´, W
Length, W-E (max)	490 km
Breadth, N-S (max)	312 km

	1000 km^2
Area, total	103
Cultivated land, estimated at	1
Other land with vegetation	24
Lakes	3
Glaciers	12
Lava	6
Sand	4
Other desert land	53

Population, Dec. 1, 1964 ..... 189.785* (1.8 per km^2)

(Reykjavik - - - ..... 76.921*)

Net increase 1959-63, annual average ... 1.9%

Born alive 2.7%
Died 0.7%

Net migration .. - 0.1%

Average life (1951-60)

Men ..... 70.7 years
Women ..... 75.0 -

Marriages (1959-63) 7.6°/oo
Separations ..... 2.5 -
Divorces ..... 0.9 -

1.2 National Economy

Occupations

Farming	13.5%
Fisheries	10.0%
Fish processing	10.0%
Other manufacturing	13.0%
Construction	10.0%
Commerce, communications	21.5%
Other services	14.5%
Pensions, publ. relief etc.	7.5%
	100.0%

Farming (about 5.200 farms)

Cattle	56 000
Horses	30 000
Sheep	777 000
Poultry	107 000
Pigs	1 000

Number of dairies 15

Milk processed in dairies	100 000 000 l
Total milk production	120 000 000 l
Mutton production	12 000 000 kg

Fisheries (830 craft, totalling 75 000 G. R. T.)

1963	total catch	774 000 tons
	(of which herring	395 000 -)
1964	Herring	542 000 tons
	Cod, haddoch and flat fish	425 000 -
	Capelin	9 000 -
	Crustacea	3 000 -
	Total	979 000 tons

Exports, imports, balance of payments

Imports 1964	5650 mill. kr.	c.i.f.
Exports -	4776 - -	f.o.b.
Adverse balance	874 million kr.	

The net balance of payments for 1964 (including services) is not yet available. In 1963 it was 220 million kr. and will probably be similar in 1964.

Fish and fishery products	92% of exports
Agricultural products	6% - -

Principal trading partners 1964

	Exports	Imports
United Kingdom	17.5%	13.3%
United States	16.1%	11.9%
Soviet Union	9.1%	8.4%
Western Germany	8.6%	10.3%
Sweden	7.3%	5.4%
Denmark	3.6%	7.0%
Norway	6.3%	10.8%
Nigeria	4.8%	-

Principal exports

Frozen fish	24.0%
Herring meal	12.5%
Salted herring	11.0%
Salted fish	9.0%
Herring oil	9.0%
Iced fish (incl. herring)	7.0%
Dried fish	7.0%

Import of Fuels in 1964

	Metric tons
Coal	12 695
Coke	899
Heavy Fuel Oil	101 634
Gas Oil	250 090
Kerosine	7 621
Gasoline	42 831
Aviation Gasoline	15 231

Estimated Consumption of Energy in 1964

(expressed as useful energy, i.e. excluding transmission and conventional losses)

Total consumption 3000 GWh

Supplied by	hydro power	17%
	geothermal energy	18%
	imported fuels	65%

Shipping

End 1963 67 vessels, 67 000 G. R. T.

Aircraft (in overseas operation)

1965 (January) 11 aircraft (1026 seats)

Passenger transports (overseas), 1963

	Foreigners	Icelanders	Total
By sea	2 800	3 212	6 012
By air	14 775	9 912	24 687
	17 575	13 124	30 699

Living Standards

Calories per day	3240
Minimum hourly daytime wages, July 1964	Kr. 36.18
Average yearly income of married workers and seamen, 1963	Kr. 125 000
According to income tax returns 1963 75% of married male taxpayers, ages 25-66 years lived in own houses	

Per 1000 inhabitants :

Passenger cars	125
Radio sets	460
Telephones	254
Energy consumption per head, coal equivalent metr. tons	4.4
Milk consumption per day per person	0.66 ltr

Production and Capital Formation

Gross National Product in 1964 at 1962 prices

Millions of I kr.	13 845
Per head, US $	1 710
Growth per annum	5,5%

Gross Fixed Capital Formation in 1964 at 1962 prices

Millions of I kr.	4 170
Percent of G.N.P.	30

Currency

Icel. kr.

100 kr.	16.08 D. Kr.
100 kr.	11.39 F. Fr.
100 kr.	9.27 D. Dm.
100 kr.	2.32 US $
100 kr.	0/16/7 UK £

1.3 Electric Power Industry

Installed Capacity and Generation of Electricity

	Installed Capacity 31.12.64 MW	%	Generation in 1964 GWh	%	Average 5 year increase 1959-1964 %	Average 10 year increase 1954-1964 %
Public Power Plants						
Hydro Power	123	82,2	653	98,1	6,8	7,1
Thermal Power	26	17,8	13	1,9	- 1,8	1,1
Total	149	100,0	666	100,0	6,6	7,1
Ownership						
State	22	14,5	52	7,8		
State and Municipal	103	69,4	566	85,0		
Municipal	24	16,1	48	7,2		
Total	149	100,0	666	100,0		

Private Power Plants	Installed Capacity 31.12.1964 Hydro MW	Thermal MW	Total MW
Farms	4	2	6
Industry, Schools, etc.	0	14	14
Total	4	16	20

Total Private Generation of electricity, estimated at 15 GWh

Gross Consumption of electricity in 1964, 3 640 kWh/capita

Consumption and Sale of Electricity in 1963

Consumption	Retail Sales GWh	%	Revenue M.kr.	%	Average Prices kr/kWh
Domestic Consumption	116,9	22,1	118,6	39,0	1,01
Space Heating	83,2	15,7	20,9	6,9	0,25
Commercial Lighting	29,3	5,5	48,8	16,0	1,67
Handicrafts	13,7	2,6	23,8	7,8	1,74
Large Power Industry	77,6	14,6	49,5	16,3	0,64
Public Lighting	8,8	1,7	9,0	3,0	1,02
Other Concumption	23,4	4,4	11,7	3,8	0,50
Total Ordinary Consumption	352,9	66,6	282,3	92,8	0,80
Fertilizer Plant	128,0	24,2	6,6	2,2	0,05
Cement Plant	12,0	2,3	3,0	1,0	0,25
Keflavik Airport (Nato-Base)	36,7	6,9	12,3	4,0	0,36
Total Special Consumption	176,7	33,4	21,9	7,2	0,12
Total Consumption	529,6	100,0	304,2	100,0	0,57
Transmission and distribution Losses, etc.	111,8				
Total Generation	641,4				

Degree of Electrification (31. 12. 1964)

Percentage of Population with access to electricity	97%

Rural Electrification (31. 12. 1964)

	No. of farms	%
Power from public networks	2 911	56. 0
- - own hydro plants	480	9. 2
- - - diesel -	574	11. 1
Total electrified	3 965	76. 3
Without electricity	1 235	23. 7
Total farms	5 200 *	100. 0

Total hydro generation in 1964 in percentage of the estimated technically available potential 1. 9

1. 4 Utilization of Geothermal Energy

Total geothermal energy production 860 Tcal

(equivalent to about 120 000 tons of crude oil)

Population served by central heating systems utilizing natural hot water	60 000
Average temperature of the water in the houses, about	75° C
Area of greenhouses using natural heat (31. 12. 1964)	105 000 m^2

2. Notes on the Climate and Hydrology of Iceland

2.1 Climate

The climate of Iceland is of rather mild maritime type with relative mild but windy winter and rather cool summers.

For indication of temperature and precipitation some monthly and annual means are given for three meteorological stations: Reykjavík, Akureyri in the northern part of the country and Hólar in the southeasternmost part (see figure 1).

	Temperature C°				Precipitation mm			
	January	June	July	Year	May	June	Oct.	Year
Reykjavík	- 0.4	9.5	11.2	5.0	42	41	97	805
Akureyri	- 1.5	9.3	10.9	3.9	15	22	57	474
Hólar	0.3	9.3	10.9	4.9	90	83	170	1632

Average duration of bright sunshine in Reykjavík a year (1930-49) 1 236.0 hours
" " " " " " " in December 6.4 "
" " " " " " " " May 187.9 "

The mean daily range of temperature is negligible during winter but ca 2°C in summer. Maximum temperature on warmest days in summer may exceed 20°C and minimum on coldest days in winter is usually below - 20°C in the inland and on the northern coast.

Spring and early summer is the dryest part of the year with some 15-20 days pr. month without rain in the southern part of the country and up to 24 days on the northern side.

2.2 Hydrology

Runoff

The average runoff for the country as a whole is approx. 55 litres per second per square kilometre. The geographical distribution is shown in Fig. 1. The highest runoff occurs near the south and west coast, in mountaineous regions; the lowest in inland areas in the north and east.

Most drainage basins are relatively small; the largest is that of Jökulsá á Fjöllum in the north 7950 sq. kilometres; Thjórsá in the south 7530 sq. kilometres and Hvítá, also in the south, 6100 sq. kilometres. In spite of this modest size of the catchments, the relatively high runoff per unit area create rivers of appreciable mangitudes. Thus the mean discharge of the three rivers mentioned above is 190, 394 and 392 kilolitres per second, respectively.

Stream-types

Icelandic streams may be divided into two basic types, viz. (1) glacial streams and (2) clearwater or non-glacial streams, according to whether or not they receive a substantial part of their summer discharge from glacier meltwater. As a matter of fact, a pure glacial stream can only exist at the snout of a glacier, since after leaving the glacier it receives additional water as surface runoff from non-glaciated areas, and as groundwater. However, in common usage, these streams are called glacial streams throughout their whole length, mainly because of the characteristic milky to brownish colour of such streams which they retain all the way to mouth. The colour stems from fine particles of glacial flour - an erosion product from the bed of the glaciers - that are suspended in the water. About ten percent of Iceland is covered with glaciers and all the major streams in the country are glacier streams.

The clearwater streams may again be divided into two subgroups viz. (1) dragá or direct run-off streams and (2) lindá or ground-water fed streams, according to whether the river is fed predominantly by surface or subsurface run-off. That again depends primarily on the geology of the basin, especially its permeability. Dragá streams thus tend to be associated with impermeable basins; lindá streams with permeable ones. Naturally, since the permeability may vary between wide limits within even a small basin, most clearwater streams are more or less a mixture of the two types. However, the characteristics of each are very marked in the case of many Icelandic rivers, notably the lindá features of many streams in the volcanic regions of the country where large areas are covered with highly permeable materials like volcanic ash and lava, with practically no surface runoff. These lindá rivers may have a remarkably even flow throughout the year; a feature of great practical importance from a development standpoint.

Many of the largest rivers of Iceland are found in the volcanic areas.

Each of the three stream types, glacial dragá and lindá rivers has its typical annual flow pattern. This is illustrated in Fig. 2. The ordinates are expressed as percentages of the mean in order to enlighten comparison. Actually, the mean discharge of all three examples is very nearly the same, 30 kl/s. Note particularly the extreme uniformity of the lindá river.

Many Icelandic streams, and especially the major ones are mixtures of all three stream types. This fact, especially the lindá component of the glacial rivers is of great practial importance, since it is primarily this component which determines the low flow doncitions of these rivers.

Water resources

Since Iceland has abundant precipitation, water supply for domestic and industrial purposes has never been a serious problem here except in a few special cases, and probably will not be for a long time to come. Hydro-electric power generation

is by far the most important potential use of the water resources of the country. Almost negligible quantities are uses for irregation a few weeks of the year and there is no river navigation or floating of timber. Freshwater fisheries are already of some importance and have good development possibilities. They are probably the only economic activity that may offer any noteworthy competion with power generation for use of the water in the future. Flood damage is practically non-existent and flood control is therefore of very small economic importance. Water resources developments in Iceland, therefore, are essentially single purpose undertakings and will continue to be so for a long time. That purpose is power generation.

Fig. 1

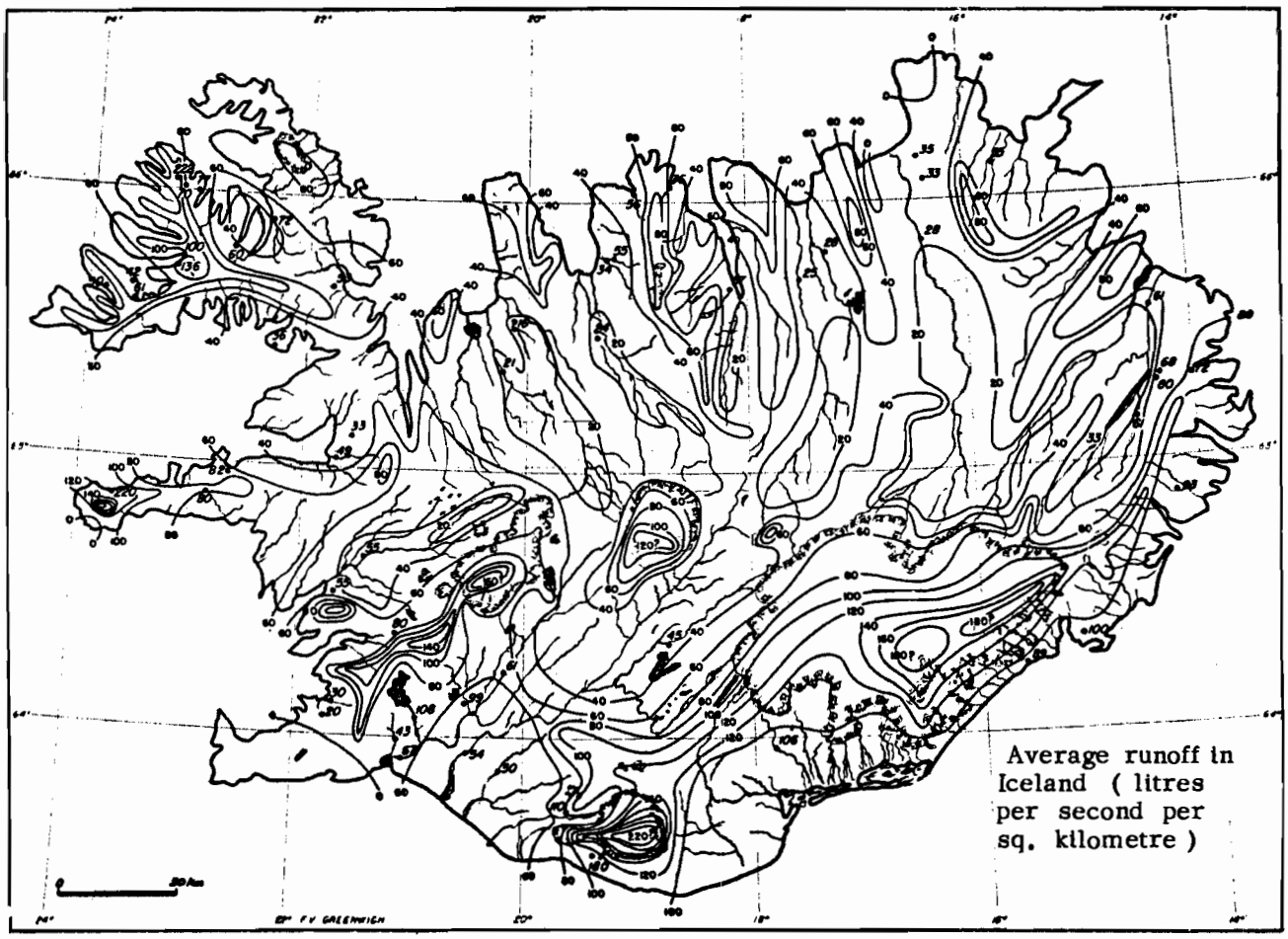
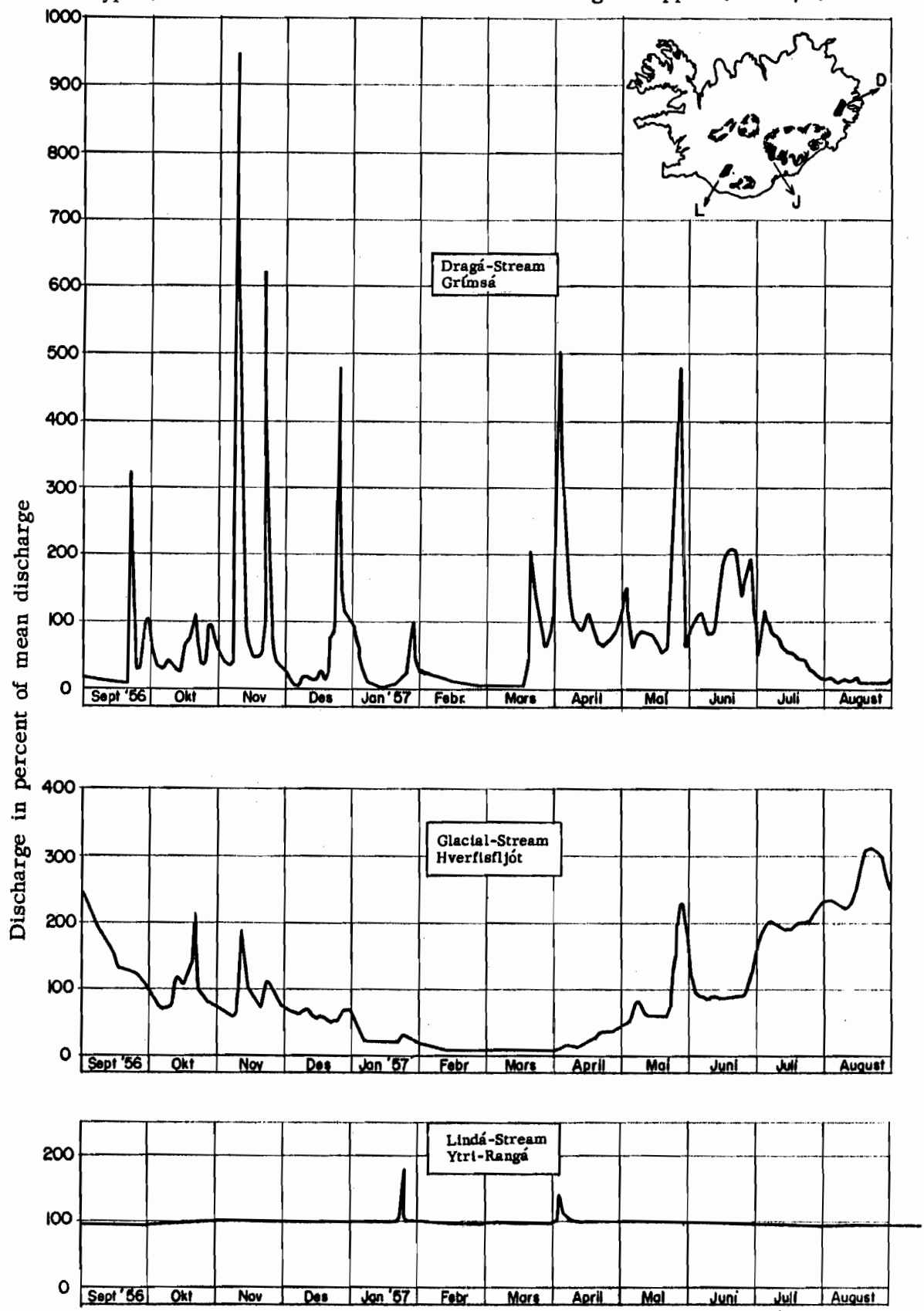


Fig. 2

Comparison of the annual flow pattern of dragá, glacial and lindá stream types. - All three rivers have a mean discharge of approx. 30 kl/s.



3. The Energy Resources of Iceland

3.1 The Hydro Power Potential

The total technically harnessable water power in Iceland is estimated at 35.000 GWh a year under normal and 31.000 GWh a year under adverse hydrological conditions.

Figure 3 shows the geographical distribution of the power potential. The river basins with the greatest potential are the Thjórsá Basin in the south, with around 30% ; Hvítá Basin, also in the south with 13% ; the Jökulsá á Fjöllum Basin in the north, with 12% and the Jökulsá á Brú Basin in the east, with 13% of the total resources.

The distribution of the power potential is favourable when compared to the population distribution since the greatest potential is found a short distance from the most densely populated regions.

Only about 2 percent of this power has been developed as yet. The water power resources are considered among the principal natural assets of the country, along with the fishing banks, the grasslands and the geothermal energy potential.

The above figures 35.000 and 31.000 GWh a year, represent the aggregate output of about 90 potential sites, the development of which is considered technically feasible. Many of these sites have only a small output. There are about 36 sites with an annual energy of 200 GWh or more each and their aggregate output is estimated at 30.000 GWh a year under normal hydraulicity conditions, or 86 percent of the total. The geographical distribution of these sites is shown by the circles in Fig. 4 where in a few cases adjacent sites have for reasons of clarity been reproduced by a single circle.

No attempt has as yet been made to assess the part of the technical potential that is economically harnessable, since in most cases the necessary site data are insufficient for cost estimation. It is expected that many of the smaller sites (below 200 GWh a year) will not prove economical but that most of the larger ones will be so.

Fig. 3

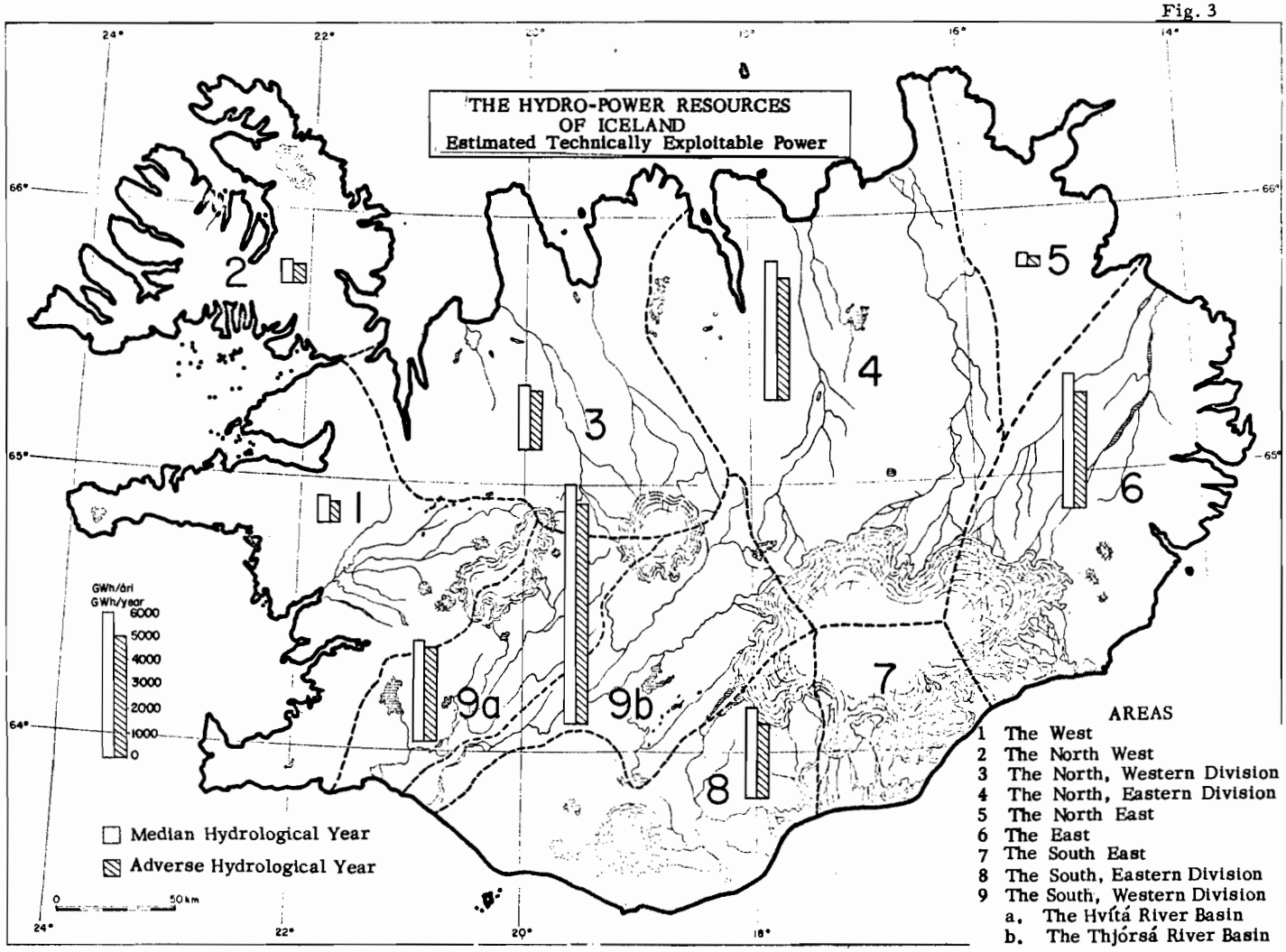
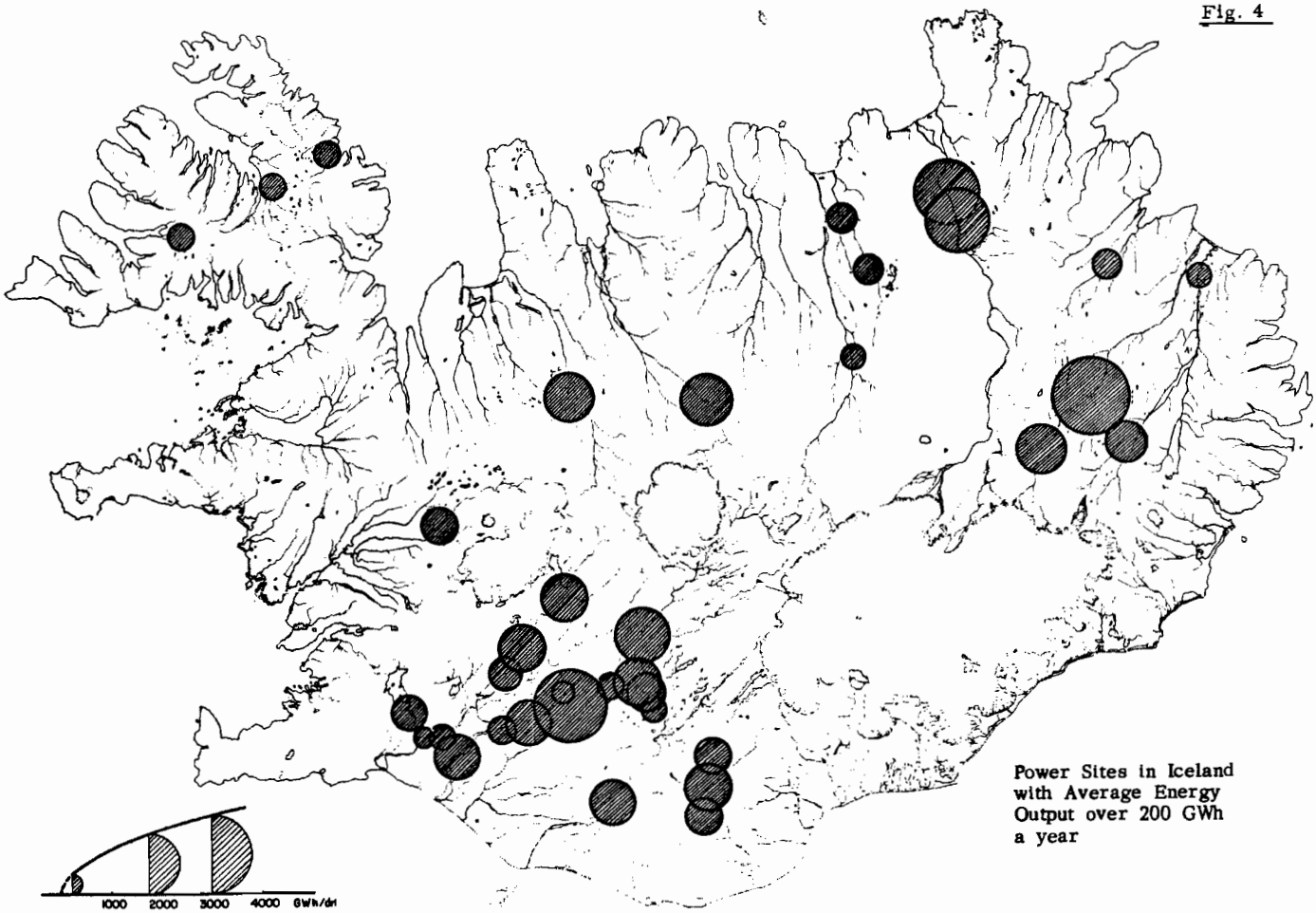


Fig. 4



Mean annual energy output of the site

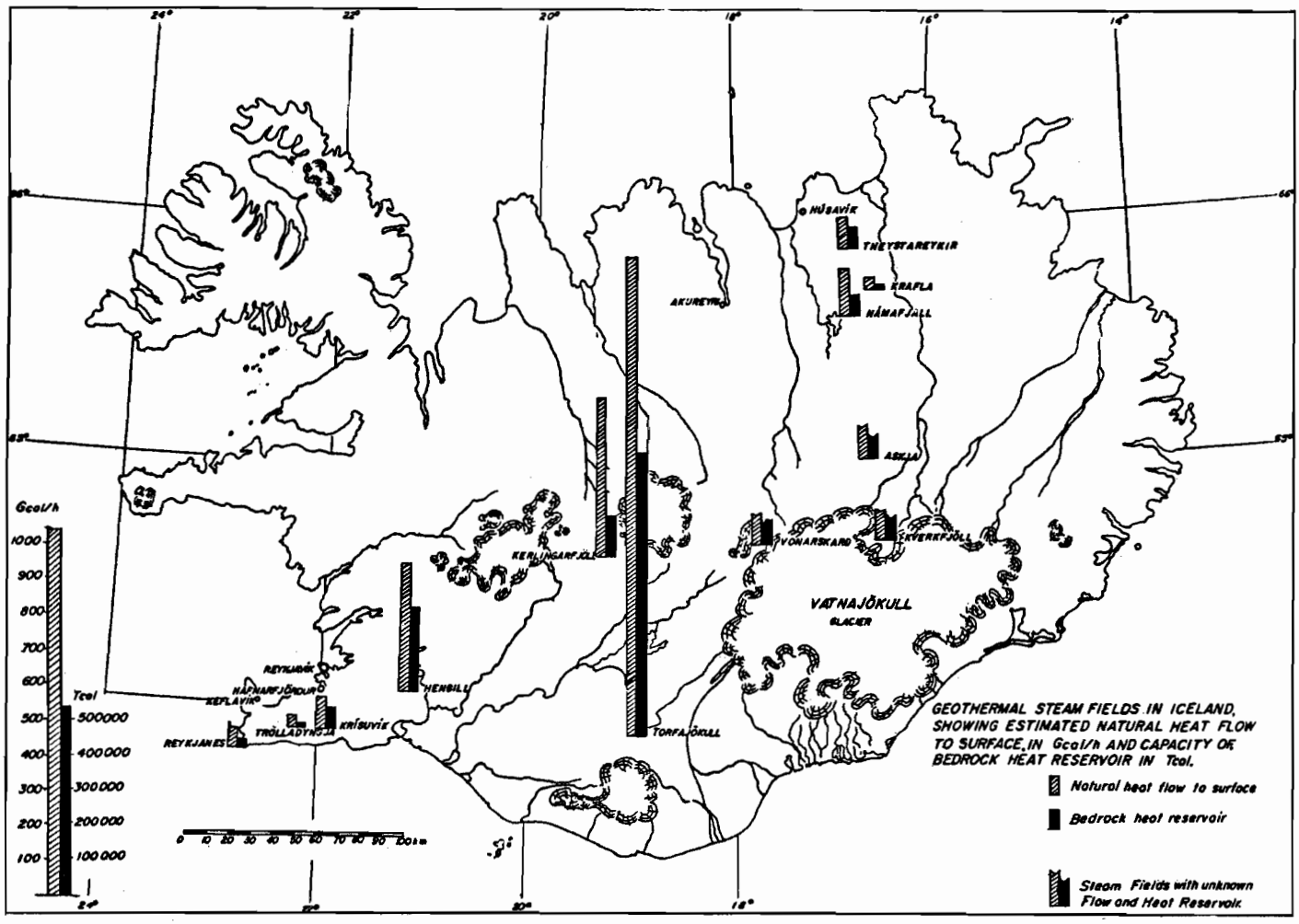
Power Sites in Iceland with Average Energy Output over 200 GWh a year

3.2 Geothermal Energy Potential

Geothermal heat is another important source of energy in Iceland. It occurs in about 250 so-called low-temperature thermal areas (characterized by water with a temperature of up to 100 degrees centigrade) and 14 high temperature areas (characterized by natural steam). Two basically different forms of geothermal heat occurrence should be distinguished : (1) recurrent form, which is comparable to hydro resources, consisting of the natural dissipation of heat to the surface in the thermal areas; and (2) non-recurrent form, analogous to fuel deposits, consisting of the heat content of the hot bedrock of these areas. The natural heat dissipation of all thermal areas has been very roughly estimated at one million kilocalories per second and the bedrock heat reservoir at between 10^7 and 10^8 Tcal (10^9 kilocalories) of which between one and ten percent is revocerable, depending on bedrock permeability, method of exploitation, and other factors. From the utilization standpoint the non-recurrent heat content of the bedrock is by far the most important form of geothermal energy so that the geothermal resources may roughly be characterized as exhaustible heat mines with a recoverable heat equivalent to several hundred million tons of oil. The production of geothermal heat in the country in 1964 was equivalent to approximately 120 000 tons of oil. Geothermal heat has in recent years been used for space heating as well as for heating of greenhouses and swimming pools, and the use is increasing.

The largest undertaking of this kind is the Reykjavík District Heating System, which now supplies hot water for space heating and domestic hot water use to about 60 % of the city´s population. It is planned to extend the system to the whole city in the next few years. Several other towns and villages are being heated in the same way. Prospecting work and studies of geothermal space heating systems for other towns which do not have one now are steadily going on. Furthermore, studies of the possibilities of using geothermal energy for industrial purposes have also been undertaken in recent years. Last, but not least, serious considerations are being given to the use of this energy for the production of electric power, and a 16 MW geothermal power plant has reached the final design stage, but has not been constructed as yet. There appears to be no special technical obstacles to the utilization of geothermal energy for power production, and the studies undertaken to date indicate that the cost of power from geothermal plants may, at least in some instances, be approximately the same as from hydro plants. Conversion to electric energy may turn out to be the only practical way of utilizing those geothermal areas that are situated far from the populated parts of the country.

Fig. 5


Gcal/h
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HÚSAVÍK
THEYSTAREYKIR
KRAFLA
NÁMAFJALL
AKUREYRI
ASKJA
KERLINGARFJÖLL
ÝMONARSKARÐ
KVERKFJÖLL
VATNAJÖKULL
GLACIER
REYKJAVÍK
HAFNARFJÖRÐUR
KEFLAVÍK
REYKJANES
TRÖLLADYNGJA
KRÍSUVÍK
HENGILL
TORFAJÖKULL
0 10 20 30 40 50 60 70 80 90 100km
GEOTHERMAL STEAM FIELDS IN ICELAND, SHOWING ESTIMATED NATURAL HEAT FLOW TO SURFACE, IN Gcal/h AND CAPACITY OF BEDROCK HEAT RESERVOIR IN Tcal.
Natural heat flow to surface
Bedrock heat reservoir
Steam Fields with unknown Flow and Heat Reservoir

UM MÆLIEININGAR AFLS OG ORKU

Í töflum þeim, er hér hafa birzt, eru notaðar einingar þær og skammstafanir, er alþjóðlega raftækninefndin (International Electrotechnical Commission - IEC) mælir með, og notaðar hafa verið í flestum löndum heims, þar á meðal á Norðurlöndum um langan aldur.

Grundvallareining afls er watt (skammstafað: W; einingin er nefnd eftir James Watt, þeim er fann upp gufuvélina).

Grundvallareining orku er í rauninni wattsekúnda (skst. Ws; s er alþjóðleg skammstöfun fyrir sekúndu; dregið af latneska orðinu secunda = sekúnda), en sökum þess hve lítil eining það er fyrir flest hagnýt not, var mynduð einingin wattstund (skst. Wh; h er alþjóðleg skammstöfun fyrir klukkustund; dregin af latneska orðinu hora= klukkustund).

1 wattstund er orka sú, sem aflið 1 watt gefur á einni klukkustund.

Grundvallareiningar þessar, W og Wh, eru í mörgum tilfellum óþægilega smáar, einkum ef um er að ræða afl og orku stórra raforkuvera, samanlagt afl eða orku raforkuvera í heilum landshlutum eða löndum. Af þeim sökum eru mjög notaðar aðrar stærri einingar, sem leiddar eru af grundvallareiningunum, á sama hátt og t. d. einingin kílometri, km, er afleidd af grundvallareiningunni metri, m, eða kílogramm, kg, er leitt af gramm, g, o. s. frv.

Helztu afleiddar einingar afls og orku eru þessar :

Afl :

Kílowatt	kW				1 000 W
Megawatt	MW			1 000 kW	1 000 000 W
Gígawatt	GW		1 000 MW	1 000 000 kW	1 000 000 000 W
Terawatt	TW	1000 GW	1 000 000 MW	1 000 000 000 kW	1 000 000 000 000 W

Orka :

Kílówattstund	kWh				1 000 Wh
Megawattstund	MWh			1 000 kWh	1 000 000 Wh
Gígawattstund	GWh		1 000 MWh	1 000 000 kWh	1 000 000 000 Wh
Terawattstund	TWh	1000 GW	1 000 000 MWh	1 000 000 000 kWh	1 000 000 000 000 Wh

MERKING TÁKNA

-	núll eða ekkert
0	minna en hálf eining
...	að upplýsingar séu ekki fyrir hendi
.	að ekki er tala skv. eðli málsins
x	að talan er að nokkru eða öllu leyti áætluð
( )	að talan í sviganum er ekki með í summu
⟶	innifalið í annarri tölu eins og örin vísar til
1), 2), o. s. frv.	tilvísun til athugasemda