

1.	Name of project	66(72,5)/132(145)kV GIS/AIS Substation SVAR-30.
2.	Location	<u>Sauðárkrókur and Varmahlíð - Iceland.</u>
3.	Work performed	<u>66kV GIS substation +132kV AIS. process control and protection system for fully digital substation, 110 V DC system.</u>
4.	Date started	<u>December 2019</u>
5.	Estimated Completion	<u>End year 2020</u>
6.	Name of client	<u>Landsnet</u>

7 Brief description of project

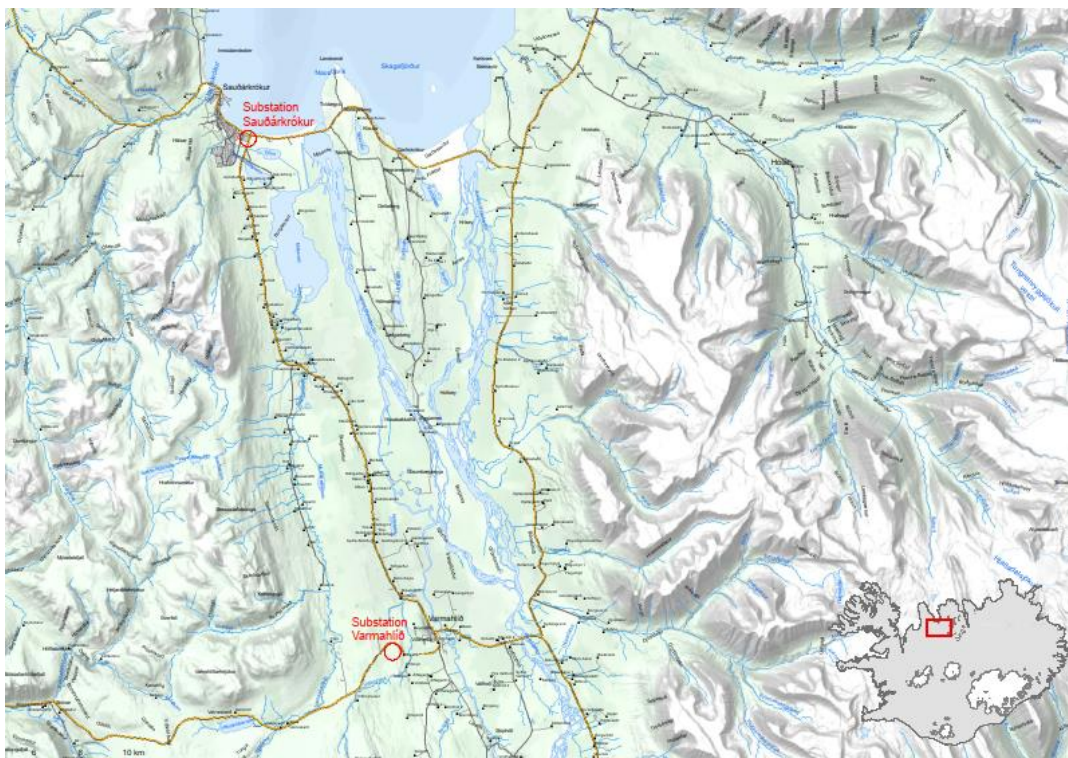
The scope of work includes design, manufacture, testing, installation and commissioning of 66 kV switchgear bays of the GIS type with single busbars and one 132 kV AIS bay, complete with control- and protection system, DC-system, cabling and accessories for two substations. Substation Sauðárkrókur will be with four 66 kV bays and one 66 kV AIS disconnecting switch. Substation Varmahlíð will be with five 66 kV GIS bays and one 132 kV AIS bay.



1. Name of project	<u>66kV Cable termination project SA2-33</u>
2. Location	<u>Sauðárkrókur and Varmahlíð - Iceland.</u>
3. Work performed	<u>66kV Cable Jointing and cable end terminations for 66kV GIS and AIS systems.</u>
4. Date started	<u>October 2019</u>
5. Estimated Completion	<u>End year 2020</u>
6. Name of client	<u>Landsnet</u>

7 Brief description of project

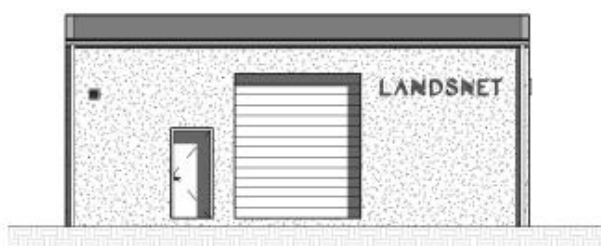
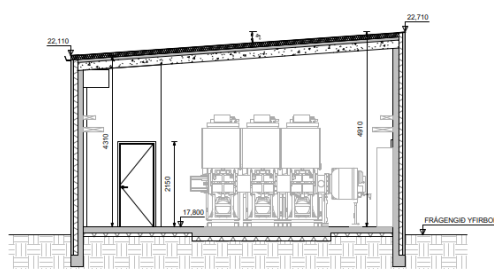
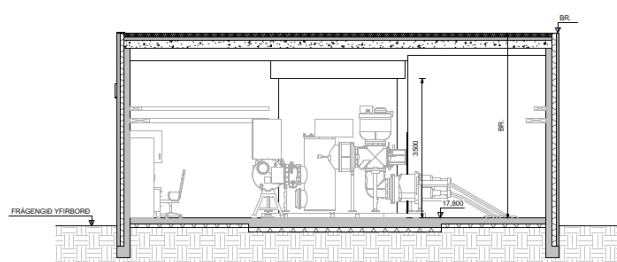
The SA2 project is the connection of a new 66 kV indoors substation at Varmahlíð and a new indoors substation at Sauðárkrókur town by a 23 km long 66 kV underground cables. Also, the connection of the existing Overhead line SA1 to the new substations in Varmahlíð and Sauðárkrókur with underground cables in total of 2 km. The SA2-33 contract includes the jointing work and supply and installation of GIS terminations and AIS terminations of 66 kV cables.



1. Name of project	132(145)kV GIS Substation HNA-40.
2. Location	Hnappavellir – South Coast of Iceland.
3. Work performed	132 kV substation, EPC, GIS 145 kV switchgear, process control and protection system, digital substation, 400 V AC distribution, 110 V DC system, 132kV cable termination.
4. Date started	September 2019
5. Estimated Completion	September 2020
6. Name of client	Landsnet

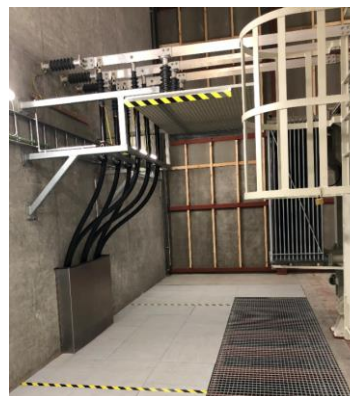
7 Brief description of project

New 132 kV substation, contract form EPC, including civil structure, gas insulated high voltage switchgear, control and protection system based on the digital substation concept, 400 V AC distribution, 110 V DC systems and cables, located 100 km east of Kirkjubæjarklaustur in eastern Iceland.



1. Name of project	11(12)/33(36)/132(145)kV Substation JON-A
2. Location	<u>Hafnarfjörður - Iceland</u>
3. Work performed	<u>Installation of 12kV and 36kV equipment, Installation of 2 power transformers, HV cable laying and terminations and installation of secondary systems.</u>
4. Date started	<u>June 2019</u>
5. Completion	<u>November 2019</u>
6. Name of client	<u>HS Veitur</u>
7. Brief description of project	

The project scope was installation of: Metal Clad switchgear, Power transformers, 132kV Cable, HV Cable terminations as well as general installation of substation secondary systems.



1. Name of project	Heat exchange pump station – installation of mechanical and electrical equipment
2. Location	<u>Vestmannaeyjar</u>
3. Work performed	<u>Connection of heat exchange pumps and supply and installation of electrical equipment for a new heat exchange pump station in Vestmannaeyjar</u>
4. Date started	<u>January 2018</u>
5. Completion	<u>December 2018</u>
6. Name of client	<u>HS Veitur</u>
7. Brief description of project	Connection of heat exchange pumps and supply and installation of electrical equipment for a new heat exchange pump station in Vestmannaeyjar.



1. Name of project	Substation Hvolsvöllur – High Voltage Substation Equipment
2. Location	Hvolsvöllur
3. Work performed	Furnish and installation of 72,5 kV AIS Switchgear, including control and protection systems, 110 V DC systems and cables.
4. Date started	May 2017
5. Completion	August 2019
6. Name of client	Landsnet
7. Brief description of project	

Supply and installation and commissioning of electrical equipment, including control- and protection system for new 72,5 kV AIS Switchgear in Hvolsvöllur.

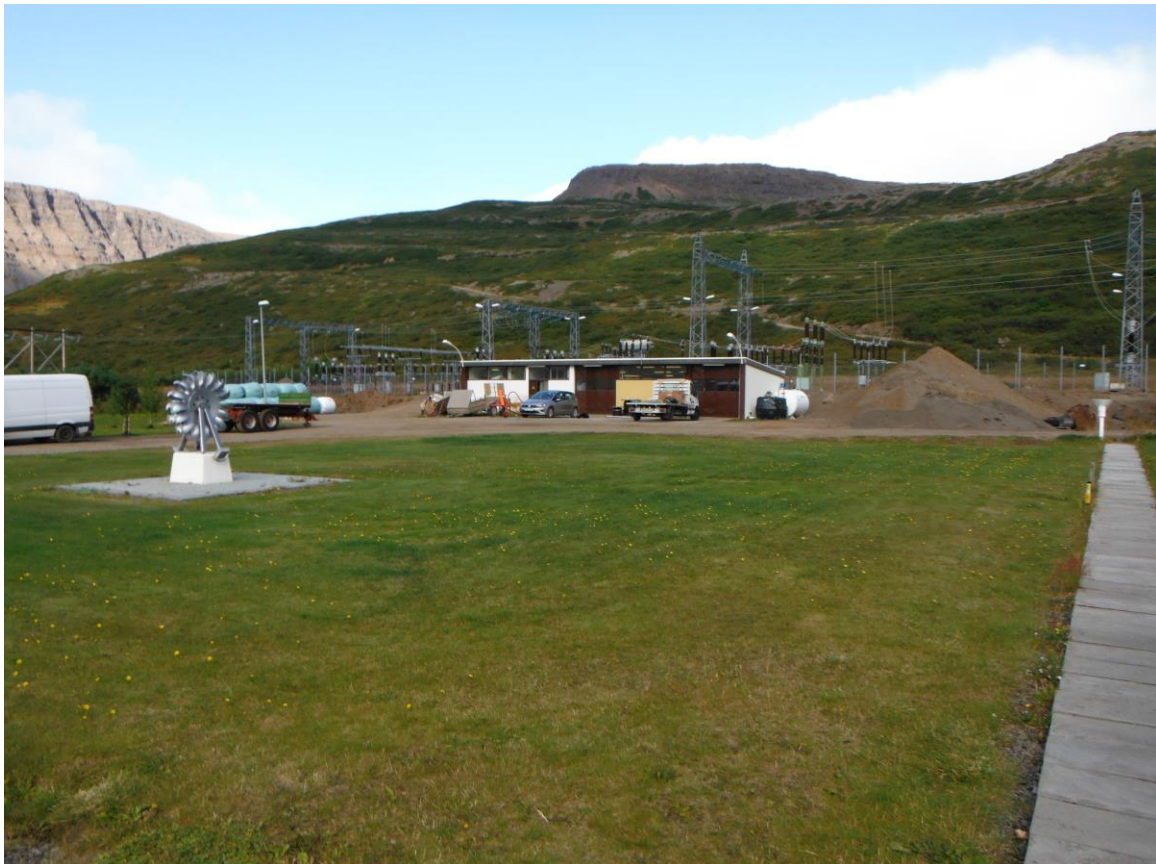


1.	Name of project	<u>RTA water supply station</u>
2.	Location	<u>Straumsvík</u>
3.	Work performed	<u>Furnish and installation of equipment for water supply station.</u>
4.	Date started	<u>January 2017</u>
5.	Completion	<u>December 2017</u>
6.	Name of client	<u>Rio Tinto Alcan</u>
7.	Brief description of project	
	Supply and installation of 1000 kVA cast resin transformer. Supply, laying and connection of HV cables and other HV equipment. Laying and connection of control cables.	



1.	Name of project	<u>Substation Mjólká, MJO-32</u>
2.	Location	<u>Mjólkárverkjun</u>
3.	Work performed	<u>Furnish and installation of equipment for 66/132 kV substation in Mjólká.</u>
4.	Date started	<u>July 2016</u>
5.	Completion	<u>December 2016</u>
6.	Name of client	<u>Landsnet</u>
7.	Brief description of project	

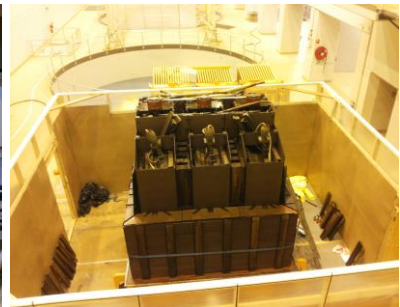
Supply, installation and commissioning of electrical equipment, including control- and protection system for extension of 66/132 kV AIS, new bay for 30 MVA transformer.



1. Name of project	<u>Substation Akranes, AKR-31</u>
2. Location	<u>Akranes</u>
3. Work performed	<u>Furnish and installation of equipment for 66 kV substation in Akranes.</u>
4. Date started	<u>March 2015</u>
5. Completion	<u>February 2016</u>
6. Name of client	<u>Landsnet</u>
7. Brief description of project	
Supply, installation and commissioning of electrical equipment, including control- and protection system for a 66 kV substation in Akranes.	



1. Name of project	<u>Upgrade on Generator transformer</u>
2. Location	<u>Landsvirkjun Hrauneyjafossvirkjun</u>
3. Work performed	<u>Upgrade and erection on 86 MVA shell type transformer</u>
4. Date started	<u>February 2014</u>
5. Date completed	<u>October 2014</u>
6. Name of client	<u>Landsvirkjun</u>
7. Brief description of project	
Inspection and rebuild 86 MVA shell type generator transformer in hydro power plant Hrauneyjafossvirkjun.	

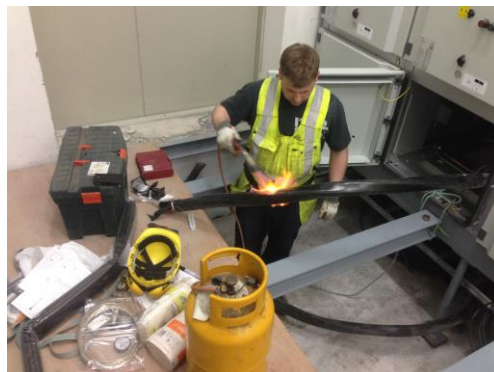


1.	Name of project	Transformer installation and connection
2.	Location	Rio Tinto Alcan - Straumsvík
3.	Work performed	Erection and installation of transformers.
4.	Date started	February 2014
5.	Date completed	October 2014
6.	Name of client	Rio Tinto Alcan
7.	Brief description of project	

Erection, Installation and connection of two 6MVA - 24/6KV transformers.
Erection, Installation and connection of one 1200KVA – 6/0,4KV transformer.



1.	Name of project	<u>HV Cable laying and connecting</u>
2.	Location	<u>Rio Tinto Alcan - Straumsvík</u>
3.	Work performed	<u>Cabling and connection for Sustain Compressed Air Supply</u>
4.	Date started	<u>December 2013</u>
5.	Date completed	<u>April 2014</u>
6.	Name of client	<u>Rio Tinto Alcan</u>
7.	Brief description of project	
	Furnish and installation of 24 kV high voltage cables for Sustain Compressed Air Supply and Installation of DC-, fiber optic- and communication cables.	



1.	Name of project	<u>IPU-ISAL Production upgrade - Casthouse Network Upgrade</u>
2.	Location	<u>Straumsvík</u>
3.	Work performed	<u>Upgrade of Casthouse Network</u>
4.	Date started	<u>July 2011</u>
5.	Date completed	<u>January 2012</u>
6.	Name of client	<u>Alcan á Íslandi</u>
7.	Brief description of project	<p>Manufacture, installation and testing of network panels and installation and testing of fibre optical backbone network at Alcan's casthouse in Straumsvík.</p>



1.	Name of project	<u>ALCOA Fjardaál – Rectifier bay RF12</u>
2.	Location	<u>Reyðarfjörður</u>
3.	Work performed	<u>Dismantling and reconstruction of RF12</u>
4.	Date started	<u>December 2010</u>
5.	Date completed	<u>December 2011</u>
6.	Name of client	<u>Alcoa Fjarðaál</u>
7.	Brief description of project	

Disconnecting and removal of rectifier unit, regulating and rectifier transformers, damaged in fire in the rectifier bay 18.12.2010. Installation of new HV, LV and control cables as well as restoring and reinstallation of the rectifier unit and testing and commissioning work for the complete rectifier bay before reenergising RF12.



1. Name of project	El Salvador - Site Management - Commissioning
2. Location	El Salvador
3. Work performed	Commissioning of primary and secondary electrical systems
4. Date started	September 2010
5. Date completed	November 2010
6. Name of client	Semco Maritime A/S
7. Brief description of project	Commissioning of primary and secondary electrical systems at a new 75 MVA diesel powered power plant in El Salvador



1. Name of project	<u>ALCOA Fjardaál – Replacement of 52 kV outdoor end terminations</u>
2. Location	<u>Reydarfjordur</u>
3. Work performed	<u>End terminations dismantled, inspected and replaced with new terminations</u>
4. Date started	<u>October 2009</u>
5. Date completed	<u>January 2010</u>
6. Name of client	<u>Alcoa-Fjarðaál sf</u>
7. Brief description of project	
Replacement of 120 pcs. 52 kV outdoor end terminations for 33 kV filter banks for 5 rectifier groups at ALCOA's aluminum smelter in Reydarfjordur.	



1. Name of project	Substation Kolviðarhóll, Extension Feeder Nos. 7&8, KOL-30
2. Location	Kolviðarhóll
3. Work performed	Erection of two new 245 kV GIS feeder bays including control & protection cubicles.
4. Date started	February 2008
5. Date completed	July 2008
6. Name of client	AREVA T&D Ltd.
7. Brief description of project	Erection of two new 245 kV GIS feeder bays including control & protection cubicles.



1. Name of project	Substation Hryggstekkur Dynamic Var Compensator, HRY-30
2. Location	Hryggstekkur
3. Work performed	Furnish and installation of equipment for new DVC system including 145 kV bay and 45 MVA 132/34,5 kV step down transformer.
4. Date started	September 2005
5. Date completed	May 2008
6. Name of client	Landsnet

7. Brief description of project

Furnish and installation of equipment for new DVC system including new 145 kV bay and 45 MVA 132/34,5 kV step down transformer and 145 kV cable.



1.	Name of project	Fjarðaál - Terminations of 12kV XLPE cables
2.	Location	<u>Reyðarfjörður</u>
3.	Work performed	<u>Terminations of 12kV XLPE cables in new aluminium smelter</u>
4.	Date started	<u>October 2006</u>
5.	Date completed	<u>September 2007</u>
6.	Name of client	<u>Alcoa-Fjarðaál sf</u>
7.	Brief description of project	

All cable termination and joints in the 12 kV distribution network for the new plant in Reyðarfjörður, total 280 terminations.



1. Name of project	Substation Fljótsdalur, High Voltage Switchgear, FLJ-30
2. Location	Fljótsdalur
3. Work performed	Installation of equipment for 245 and 145 kV GIS as well as all auxiliary equipment and two 75 MVA 132/220 kV step-up transformers. Furnish and installation of 24 km of 145 kV cables.
4. Date started	February 2006
5. Date completed	January 2007
6. Name of client	AREVA T&D Ltd.
7. Brief description of project	

Installation of electrical and mechanical equipment for 245 and 145 kV GIS in the substation at Fljótsdalur, including all auxiliary equipment. Furnish and installation of all 145 kV cables including some 24km long cable system for connection of the station to the existing 132 kV line grid.



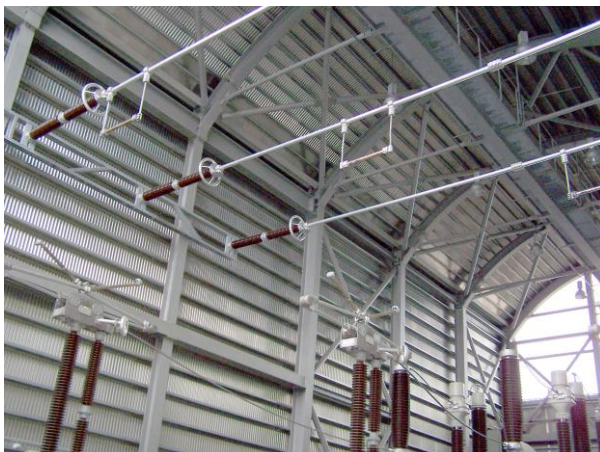
1. Name of project	Substation Kolviðarhóll, High Voltage Switchgear, KOL-30
2. Location	Kolviðarhóll
3. Work performed	Installation of equipment for new 245 kV GIS switchgear including all auxiliary equipment
4. Date started	April 2006
5. Date completed	August 2006
6. Name of client	AREVA T&D Ltd.

7. Brief description of project

Erection and installation of all electrical and mechanical equipment for 245 kV GIS in the new substation at Kolviðarhóll.



1. Name of project	Reykjanesvirkjun, 245kV Outdoor Air-Insulated Switchgear, F0215-31
2. Location	Reykjanes
3. Work performed	Furnish and installation of equipment for new 245 kV switchgear for the geothermal power plant Reykjanesvirkjun
4. Date started	September 2005
5. Date completed	April 2006
6. Name of client	Hitaveita Suðurnesja
7. Brief description of project	Furnish and installation of equipment for new 245 kV AIS for the geothermal power plant Reykjanesvirkjun.



1. Name of project	Substation Brennimelur, High Voltage Switchgear, BRE-31
2. Location	Brennimelur
3. Work performed	Furnish and installation of equipment for extension of 245 kV switchgear for new bay for new line Brennimelur-Sandafell
4. Date started	February 2005
5. Date completed	December 2005
6. Name of client	Landsvirkjun

7. Brief description of project

Furnish and installation of electrical and mechanical equipment for 245 kV AIS switchgear in the substation at Brennimelur. One new bay for connection of existing 245 kV transmission line and modification of an existing 245 kV line bay for connection of a new line.



1.	Name of project	Substation Sultartangi, Extension of GIS in Sandafell, SUL-40
2.	Location	Sandafell
3.	Work performed	Installation of GIS equipment for new bay as extension of the 245 kV switchgear
4.	Date started	September 2005
5.	Date completed	December 2005
6.	Name of client	VA TECH/SIEMENS
7.	Brief description of project	Installation of electrical and mechanical equipment for high voltage switchgear in Sandafell S/S. One new 245 kV GIS bay for new line Sandafell-Brennimerur.



1.	Name of project	Nesjavallavirkjun 6th phase, Electrical installations.
2.	Location	Nesjavellir
3.	Work performed	Electrical installations and erection of equipment for 6 th phase for the geothermal power plant Nesjavallavirkjun
4.	Date started	March 2005
5.	Date completed	October 2005
6.	Name of client	Orkuveita Reykjavíkur
7.	Brief description of project	Electrical installations for the 6 th phase extension of the geothermal power plant Nesjavallavirkjun, including laying and connections of control and HV cables.



1.	Name of project	Substation Laxá High Voltage Switchgear, LAX-30
2.	Location	Laxá
3.	Work performed	Furnish and installation of equipment for 66kV switchgear at Laxá Powerplants.
4.	Date started	August 2002
5.	Date completed	December 2003
6.	Name of client	Landsvirkjun
7.	Brief description of project	Furnish and installation of electrical and mechanical equipment for high voltage switchgear in new 66kV substation at Laxá Powerplants.



1. Name of project	Kárahnjúkar Hydroelectric Project Distribution Switchgear, KAR-08
2. Location	<u>Kárahnjúkar</u>
3. Work performed	<u>Furnish and installation of equipment for 36 kV Distribution Switchgear.</u>
4. Date started	<u>March 2003</u>
5. Date completed	<u>October 2003</u>
6. Name of client	<u>Landsvirkjun</u>

7. Brief description of project

Furnish all equipment, erection and installation of four 36 kV substations at the access doors into the tunnels as part of the local power distribution system for the Kárahnjúkar Hydroelectric Project Distribution Switchgear.



1.	Name of project	Þórisvatnsmiðlun endurnýjun botnlöku, ÞÓR-31
2.	Location	Þórisvatn
3.	Work performed	Furnish and installation of gate for bottom outlet Kaldakvísl river.
4.	Date started	July 2002
5.	Date completed	Autumn 2003
6.	Name of client	Landsvirkjun
7.	Brief description of project	

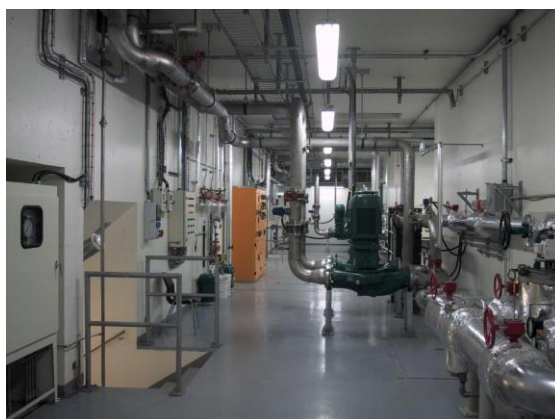
Furnish and installation of new gate in existing bottom outlet, including all lifting, heating, electrical and control equipment for the gate.



1. Name of project	Vatnsfell Hydroelectric Project – VAF-30
2. Location	<u>Vatnsfell</u>
3. Work performed	<u>Complete installation of turbines, generators and electrical equipment.</u>
4. Date started	<u>May 2000</u>
5. Date completed	<u>December 2002</u>
6. Name of client	<u>Genereal Electric – Clemessy consortium</u>
7. Brief description of project	

Installation of mechanical and electrical parts.

Installation of embedded and assembled parts of turbines, generators, 220 kV GIS, 11 kV cables, 2 x 11/220 kV 50 MVA unit power transformers, 11/0,4 kV auxillary transformers, generator terminal equipment, IBPs and CBs, all auxillary and control systems for the plant, extension of 220 kV Switchgear in AIS Sigalda etc.



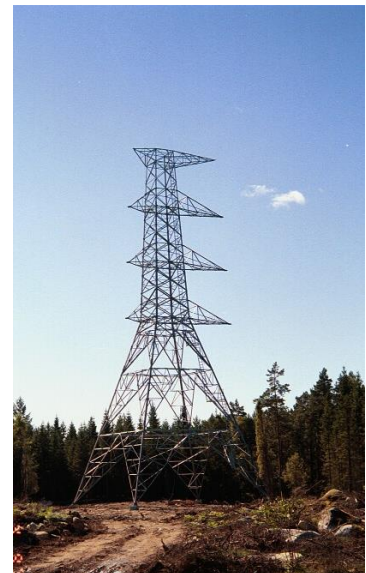
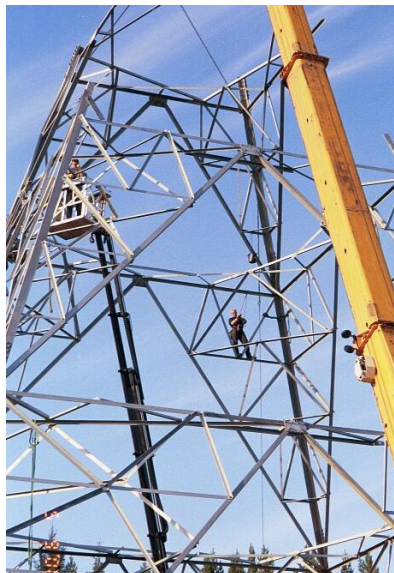
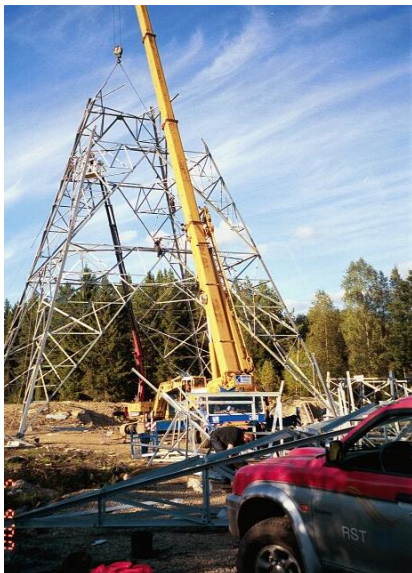
1. Name of project	Substation Brennimelur Capacitor Bank, BRE-30
2. Location	Brennimelur
3. Work performed	Furnish and erection of 75 MVAR capacitor bank and extension of existing 220 kV Switchgear. Furnish and installation of 132 kV cable for connection of 132/66 kV transformer.
4. Date started	June 2001
5. Date completed	November 2002
6. Name of client	Landsvirkjun
7. Brief description of project	

Furnish and installation of electrical equipment for a high voltage capacitor bank including extension of Switchgear for Substation Brennimelur.



1.	Name of project	<u>Alvesta-Hemsjö</u>
2.	Location	<u>Sweden</u>
3.	Work performed	<u>Erection of towers for 400 kV line between Alvesta and Hemsjö</u>
4.	Date started	<u>August 2000</u>
5.	Date completed	<u>October 2000</u>
6.	Name of client	<u>Svenska Kraftnet</u>
7.	Brief description of project	

Work included was complete erection of up to 60 m high towers for 400 kV line between Alvesta and Hemsjö in the south of Sweden.



1. Name of project	Sultartangi Hydroelectric Project SUL-30
2. Location	Sultartangi
3. Work performed	Erection and installation of electrical equipment including cabling and connection in Power House, Switchgear House, Bottom Outlet and Spillway
4. Date started	April 1999
5. Date completed	February 2000
6. Name of client	ESBI
7. Brief description of project	

Work included was complete installation of 220 kV GIS, all 220 and 11 kV power cables, all 220/11 and 2 x 11/0,4 kV 75 MVA power transformers, all Generator terminal equipment, as well as installation of control and protection cubicles for generators, fire extinguishing system, excitation, etc. Complete installation of earthing system and cable trays and ladder system in Sultartangi.



1. Name of project	Grundartangi Extension Project, Icelandic Alloys, Oven 3
2. Location	Grundartangi
3. Work performed	Erection and installation of electrical equipment.
4. Date started	February 1999
5. Date completed	September 1999
6. Name of client	Johan Rönning hf
7. Brief description of project	

Erection and installation of electrical equipment for oven 3, including cabling and connection of 220 kV AIS, 33 and 6,6 kV MV indoor switchgear, all HV and MV power cables, 220/33 kV 75 MVA and 2 x 33/6,6 kV 25 MVA power transformers and 6,6/0,4 kV distribution transformers, 33 kV shunt capacitor bank and reactor, and auxillary, protection and control equipment related to this.



1.	Name of project	<u>New installation / upgrading of SCADA system, RARIK power network</u>
2.	Location	<u>Iceland</u>
3.	Work performed	<u>Installation and upgrading of SCADA system</u>
4.	Date started	<u>June 1998</u>
5.	Date completed	<u>February 2000</u>
6.	Name of client	<u>RARIK</u>
7.	Brief description of project	

Installation of new and upgrading older equipment in SCADA system for small hydro power plants and substations in RARIK's power network.

1.	Name of project	Refurbishment of capacitor bank Geitháls substation, LV power transmission network
2.	Location	Geitháls
3.	Work performed	Alteration and installation related to refurbishment of capacitor banks.
4.	Date started	September 1998
5.	Date completed	February 1999
6.	Name of client	Landsvirkjun
7.	Brief description of project	

Alteration and installation related to refurbishment of capacitor banks at Geitháls 220 kV substation in Landsvirkjun power transmission network.

Installations of power transformers ≥ 10 MVA

Orkuveita Reykjavíkur	Nesjavellir	40 MVA	May – June 1998
Orkuveita Reykjavíkur	Nesjavellir	40 MVA	June – July 1998
RARIK	Fáskrúðsfjörður	10 MVA	July 1998
Landsvirkjun	Búrfell	40 MVA	Sept – Oct 1998
Landsvirkjun	Búrfell	40 MVA	Sept – Oct 1998
Landsvirkjun	Búrfell	40 MVA	Sept – Oct 1998
Landsvirkjun	Búrfell	40 MVA	Sept – Oct 1998
Ísl. járnblendifélagið	Grundartangi	75 MVA	April 1999
Ísl. járnblendifélagið	Grundartangi	25 MVA	April – July 1999
Ísl. járnblendifélagið	Grundartangi	25 MVA	April – July 1999
Ísl. járnblendifélagið	Grundartangi	25 MVA	April – July 1999
Hitaveita Suðurnesja	Svartsengi	10 MVA	June 1999
Landsvirkjun	Sultartangi	75 MVA	August – Sept 1999
Landsvirkjun	Sultartangi	75 MVA	August – Sept 1999
RARIK	Akureyri	30 MVA	January 2000
Landsvirkjun	Sog	50 MVA	August 2000
Orkuveita Reykjavíkur	Reykir	12,5 MVA	October 2000
Orkuveita Reykjavíkur	Nesjavellir	40 MVA	November 2000
Landsvirkjun	Vatnsfell	50 MVA	March – April 2001
Landsvirkjun	Vatnsfell	50 MVA	March – April 2001
Landsvirkjun	Bessastaðir	31,5 MVA	April – May 2003
Landsvirkjun	Bessastaðir	31,5 MVA	June 2004
RARIK	Selfoss	20 MVA	September 2004
RARIK	Selfoss	10 MVA	September 2004
Orkuveita Reykjavíkur	Nesjavellir	40 MVA	April 2005
RARIK	Teigarhorn	10 MVA	May 2005

**RST Net****MAJOR PROJECTS**

RARIK	Sómastaðir	12,5 MVA	Sept 2005
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	50 MVA	May 2006
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	50 MVA	May 2006
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	12,5 MVA	June 2006
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	12,5 MVA	June 2006
Landsnet	Fljótsdalur	75 MVA	Oct - Des 2006
Landsnet	Fljótsdalur	75 MVA	Oct - Des 2006
Landsnet	Hryggstekkur	45 MVA	Feb 2007
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	50 MVA	May – June 2007
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	12,5 MVA	June 2007
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	50 MVA	May – June 2008
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	50 MVA	May – June 2008
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	12,5 MVA	May – June 2008
Orkuveita Reykjavíkur	Hellisheiðarvirkjun	12,5 MVA	May – June 2008
RARIK	Vopnafjörður	10 MVA	Sept – October 2008
RARIK	Lagarfossvirkjun	20 MVA	Sept – October 2008
Norðurál	Grundartangi	53 MVA	August. – Sept. 2008
Norðurál	Grundartangi	53 MVA	Feb. 2011
Alcoa Fjarðaál	Reyðarfjörður	173,9MVA	Nov 2011 (oil treatment)
Landsvirkjun	Hrauneyjafossvirkjun	70 MVA	August – October 2012
RARIK	Brennimelur	20 MVA	Dec 2012
RARIK	Höfn Hornafirði	30 MVA	Oct 2013
Landsvirkjun	Búðarhálsvirkjun	55 MVA	May 2013 – Jan 2014
Landsvirkjun	Búðarhálsvirkjun	55 MVA	May 2013 – Jan 2014
Landsvirkjun	Hrauneyjarfossvirkjun	86 MVA	Feb – Nov 2014
Landsvirkjun	Búrfellsvirkjun	37MVA	June – July 2014
Landsvirkjun	Búrfellsvirkjun	37MVA	June – July 2014
Landsvirkjun	Búrfellsvirkjun	37MVA	June – July 2014



RST Net

MAJOR PROJECTS

HS Orka	Reykjanesvirkjun	10 MVA	Oct 2015
Landsnet	Stakkur	50 MVA	Dec 2015
Landsnet	Geitháls	50 MVA	March – April 2016
Landsvirkjun	Laxárvirkjun	12 MVA	May 2017
Landsvirkjun	Þeistareykir	50 MVA	May – June 2017
Landsvirkjun	Þeistareykir	50 MVA	May – June 2017