

1. Materials and Equipment for Hydroelectric Power Stations

Item name/Product name (Specification etc.)	Branch/Station	Qty	Unit	Quotation Date	Delivery Date	Delivery Condition
				Year/Mon.	Year/Mon.	
Replacement and repairs of spillway gate rocker roller exchange (No.2 gate)	Omogo No.3 Power Station	1	Unit	2018/04	2019/03	Installed & adjusted
Replacement of scouring sluice in Okuota dam	Otaguchi Power Station	1	Unit	2018/04	2019/03	Installed & adjusted
Replacement of Sawatani No.2 intake works scouring sluice winch	Hirono Power Station	1	Unit	2018/04	2019/02	Installed & adjusted
Replacement of landslide observer within branch	Bunsu No.1 Power Station	1	Unit	2018/04	2019/03	Installed & adjusted
Replacement of monitoring control device PC within Kochi Branch	Hongawa Power Station and others	1	Unit	2018/04	2019/03	Installed & adjusted
Replacement of dam discharge alarm station DC power supply	Iokigawa Power Station	1	Unit	2018/04	2019/01	Installed & adjusted
Replacement of Inamura dam maintenance discharge facilities relay panel	Hongawa Power Station and others	1	Unit	2018/04	2019/03	Installed & adjusted
Replacement of information transmission equipment for Kakumodani intake dam, etc.	Hirayama Power Station	1	Unit	2018/04	2019/03	Installed & adjusted
Replacement of Ohashi dam spillway gate winch electric motor	Ohashi Power Station	1	Unit	2018/04	2019/03	Installed & adjusted
Replacement of Omidani dam uninterruptible power supply	Hirono Power Station	1	Unit	2018/04	2019/02	Installed & adjusted
Replacement of automatic control panels in Kusunoki Valley, etc.	Hirayama Power Station	1	Unit	2018/04	2019/03	Installed & adjusted
Shunt reactor	Shingai Power Station	1	Piece	2018/04	2019/10	Delivered & adjusted
Renewal of generator monitoring maintenance support server	Hongawa Power Station	1	Unit	2018/04	2018/12	Delivered & adjusted
Modification of circuit breaker and switch box	Hirono Power Station	1	Unit	2018/04	2019/01	Delivered & adjusted
Installation of remote monitoring control system	Yusuharagawa No.1/No.3 Power Station	1	Unit	2018/05	2020/03	Installed & adjusted
Installation of Hatsuse dam remote monitoring control system	Yusuharagawa No.2 Power Station	1	Unit	2018/05	2020/03	Installed & adjusted
Replacement of Hatsuse dam monitoring control device	Yusuharagawa No.2 Power Station	1	Unit	2018/05	2020/03	Installed & adjusted
Replacement of No.1 water turbine, CFD analysis, modification of generator	Kae Power Station	1	Unit	2018/05	2021/01	Installed & adjusted
TR control and protection panel	Matsuogawa No.2 Power Station	2	Panel	2018/05	2019/04	Delivered & adjusted
Main transformer 3.3/66kV 7MVA special three-phase outdoor	Kirikoshi Power Station	1	Set	2018/05	2020/02	Delivered & adjusted
Replacement of Fujikoso River stream intake dam scouring sluice control panel	Omogo No.1 Power Station	1	Unit	2018/06	2018/12	Installed & adjusted
Replacement of dam spillway gate electric motor	Nagasawa Power Station	1	Unit	2018/06	2019/03	Installed & adjusted
Runner and water turbine-related parts	Iyogawa Power Station	1	Unit	2018/06	2021/01	Delivered & adjusted
Reform of 1U (water turbine, inlet valve, regulator, generator, exciter, control panel, etc.)	Yusuharagawa No.2 Power Station	1	Unit	2018/06	2021/03	Installed & adjusted
Reform of 2U (water turbine, inlet valve, regulator, generator, exciter, control panel, main transformer, etc.)	Yusuharagawa No.2 Power Station	1	Unit	2018/06	2022/03	Installed & adjusted
Automatic output control device	Bunsui No.2/No.3 Power Station	1	Unit	2018/06	2021/03	Delivered & adjusted
Automatic restoration system, for multi-transmission lines	Matsuogawa No.2 Power Station	1	Panel	2018/06	2019/04	Delivered & adjusted
Remote monitoring control system	Nagasawa Power Station	2	Panel	2018/08	2020/02	Delivered & adjusted
Replacement of water gauge of intake dam, etc.	Matsuogawa No.1 Power Station	1	Unit	2018/08	2018/10	Installed & adjusted
Replacement of Sadamitsu intake dam hydraulic device	Kira Power Station	1	Unit	2018/08	2018/12	Installed & adjusted
Water turbine and generator inspection with repairs	Sogawa Power Station	1	Unit	2018/08	2020/02	Delivered & adjusted
Switch box (generator box)	Nagasawa Power Station	4	Box	2018/08	2020/01	Delivered & adjusted
Integrated control panel, etc.	Nagasawa Power Station	1	Unit	2018/08	2020/02	Delivered & adjusted
Main feed-water pump	Hongawa Power Station	1	Set	2018/08	2019/11	Delivered & adjusted
Water turbine and generator inspection with repairs	Nagasawa Power Station	1	Unit	2018/09	2020/02	Delivered & adjusted
Turbine generator disassembly inspection with repairs	Hirono Power Station	1	Unit	2018/09	2020/02	Delivered & adjusted
Generator monitoring device maintenance support server	Kubokawa Hydropower Stations & Substations Maintenance Offices	1	Unit	2018/09	2020/01	Delivered & adjusted
Generator control panel, etc.	Hirono Power Station	1	Unit	2018/09	2019/10	Delivered & adjusted

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Replacement of water tank dust collector	Omogo No.1 Power Station	1	Unit	2018/10	2019/06	Installed & adjusted
Replacement of intake gate winch	Hirono Power Station	1	Unit	2018/10	2020/02	Installed & adjusted
Replacement of intake automatic dust collector	Hirono Power Station	1	Unit	2018/10	2020/02	Installed & adjusted
Generator monitoring device	Sakamoto Power Station	1	Unit	2018/10	2020/01	Delivered & adjusted
Pressure oil pump, pressure oil control panel	Nagasawa Power Station	1	Unit	2018/10	2020/02	Delivered & adjusted
Water turbine generator control panel (integrated)	Sogawa Power Station	1	Unit	2018/11	2020/02	Delivered & adjusted
Regulator	Sogawa Power Station	1	Unit	2018/11	2020/02	Delivered & adjusted
Installation of generator monitoring device	Omogo No.2 Power Station	1	Unit	2018/11	2019/11	Delivered & adjusted
Generator box, generator transformer box, boxes in stations	Sogawa Power Station	1	Unit	2018/11	2020/01	Delivered & adjusted
Generator relay panel	Sogawa Power Station	1	Unit	2018/11	2020/02	Delivered & adjusted
Generator monitoring device, ITV camera	Namuragawa Power Station	1	Unit	2018/09	2020/03	Delivered & adjusted
Generator monitoring device, ITV camera	Ohashi Power Station	1	Unit	2018/11	2020/03	Delivered & adjusted
Generator monitoring device, ITV camera	Otaguchi Power Station	1	Unit	2018/11	2019/11	Delivered & adjusted
Generator monitoring device, ITV camera	Nagasawa Power Station	1	Unit	2018/11	2020/03	Delivered & adjusted
Tsuga dam discharge warning device	Tsuga Power Station	1	Unit	2018/12	2021/03	Installed & adjusted
Generator monitoring device	Iwayagawa Power Station	1	Unit	2019/01	2020/01	Delivered & adjusted
Switch box (direct distribution box)	Kagamigawa Power Station	5	Box	2019/01	2020/05	Delivered & unloaded
Distribution transformer	Kagamigawa Power Station	1	Set	2019/01	2020/05	Delivered & adjusted
Replacement of Yusuhara No.2 Power Station dam constant voltage constant frequency power supply	Kubokawa Hydropower Stations & Substations Maintenance Offices	1	Unit	2019/02	2020/03	Installed & adjusted
Gas circuit breaker 204kV 2kA31.5kA 3∞ salt-tolerant	Shingai Power Station	1	Piece	2019/02	2020/05	Free on truck
Generator CB box, boxes in stations, generator transformer box	Sogawa Power Station	3	Box	2019/03	2019/12	Free on truck

(Reference) For fiscal 2019

Replacement of water tank channel emergency water cut-off equipment, modification of water tank regulating gate control panel	Omogo No.1 Power Station	1	Unit	2019/04	2019/09	Installed & adjusted
Replacement of dam channel water level stabilizer	Omogo No.1 Power Station	1	Unit	2019/04	2019/06	Installed & adjusted
Replacement of dam MDX device	Ohashi Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of dam TM device	Ohashi Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of dam high voltage power receiving facilities	Nagasawa Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of dam high voltage power receiving facilities	Omorigawa Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of dam hydraulic water gauge	Nagasawa Power Station	1	Unit	2019/04	2019/12	Installed & adjusted
Replacement of dam water gauge	Ohashi Power Station	1	Unit	2019/04	2019/12	Installed & adjusted
Replacement of draft gate hydraulic unit	Hongawa Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of Bunsui system ITV device	Bunsui No.4 Power Station	1	Unit	2019/04	2019/09	Installed & adjusted
Replacement of former No. 2 intake regulating gate hydraulic device	Nagasawa Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of high voltage power receiving facilities	Omorigawa Power Station	1	Unit	2019/04	2019/12	Installed & adjusted
Installation of intake remote control system	Hirono Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Installation of intake remote control system	Hirayama Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of intake stepup transformer, etc.	Hongawa Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of east channel telecommunication cable	Higashitoyonaga Power Station	1	Unit	2019/04	2019/12	Installed & adjusted

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Replacement of power generation discharge warning device	Nagasawa Power Station	1	Unit	2019/04	2019/09	Installed & adjusted
Replacement of Shigeto dam gate remote control panel	Hirayama Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of Hongawa PS intake regulating gate electric motor	Hongawa Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of Hongawa PS outlet regulating gate electric motor	Hongawa Power Station	1	Unit	2019/04	2020/03	Installed & adjusted
Replacement of Hongawa system ITV device	Ohashi Power Station	1	Unit	2019/04	2019/09	Installed & adjusted
Installation of dam downstream turbidimeter	Tsuga Power Station	1	Unit	2019/04	2020/02	Installed & adjusted
Installation of regulating pond muddy water reduction facilities	Tsuga Power Station	1	Unit	2019/04	2020/02	Installed & adjusted
Installation of Shimanto River rain gauge	Yusuharagawa No.2 Power Station	1	Unit	2019/04	2019/12	Installed & adjusted
Motorizing of running and traversing, new construction of 2.8t hoist, replacement of winch motor	Yusuharagawa No.2 Power Station	1	Unit	2019/04	2020/04	Installed & adjusted
Replacement of dam MDX device	Kae Power Station	1	Unit	2019/05	2021/03	Installed & adjusted
Replacement of dam monitoring control device	Kae Power Station	1	Unit	2019/05	2021/03	Installed & adjusted
Replacement of dam remote monitoring control device	Kae Power Station	1	Unit	2019/05	2021/03	Installed & adjusted
Replacement of Hatsuse dam water system display unit and PCs	Yusuharagawa No.2 Power Station	1	Unit	2019/05	2020/03	Installed & adjusted
Maintenance support server for generator monitoring device	Omogo No.3 Power Station	1	Unit	2019/05	2019/11	Installed & adjusted
Replacement of dam spillway unit side operation panel	Yanadani Power Station	1	Unit	2019/06	2019/12	Installed & adjusted
Replacement of water tank regulating gate	Sogawa Power Station	1	Unit	2019/06	2020/02	Installed & adjusted
Replacement of dam automatic dust collector control panel	Yanadani Power Station	1	Unit	2019/06	2019/12	Installed & adjusted
Replacement of dam scouring sluice control panel	Yanadani Power Station	1	Unit	2019/06	2019/12	Installed & adjusted
Replacement of dam outlet and maintenance discharge control panel	Yanadani Power Station	1	Unit	2019/06	2019/12	Installed & adjusted
Installation of Hatsuse dam meteorological equipment	Yusuharagawa No.2 Power Station	1	Unit	2019/06	2020/03	Installed & adjusted
Replacement of Tsuga dam net boom	Tsuga Power Station	1	Unit	2019/06	2020/03	Installed & adjusted
Installation of water system monitoring panel	Tsuga Power Station	1	Unit	2019/07	2020/03	Installed & adjusted
Logic panel x 2, measurement auxiliary panel x1	Kae Power Station	1	Unit	2019/07	2020/12	Delivered & adjusted
Switch box (generator box, LRT, MTR primary box, VCT box)	Kagamigawa Power Station	1	Unit	2019/07	2020/11	Delivered & unloaded
Main transformer	Kagamigawa Power Station	1	Set	2019/07	2020/11	Delivered & adjusted
Replacement of Yanadani dam Gomyo sand basin simple dust collector	Yanadani Power Station	1	Unit	2019/08	2020/03	Installed & adjusted
Replacement of distribution board and power incoming unit in intake station	Odo Power Station	1	Unit	2019/08	2020/03	Installed & adjusted
Main transformer no-voltage tap 4.5MVA 66kV/6.6kV	Yuyama Power Station	1	Set	2019/08	2020/11	Delivered & adjusted
Switch box (MTR primary box, Ohashi line box, LRT primary box, VCT box)	Ohashi Power Station	1	Unit	2019/08	2020/11	Delivered & unloaded
Distribution transformer 66/6kV 6.6MVA	Hirono Power Station	1	Set	2019/08	2020/12	Delivered & adjusted
Modification of integrated control panel, etc.	Ohashi Power Station	1	Unit	2019/08	2021/02	Delivered & adjusted
Switch box (generator box)	Ohashi Power Station	4	Box	2019/08	2020/12	Delivered & unloaded
Replacement of Nagoro dam spillway gate remote control panel	Nagoro Power Station	1	Unit	2019/09	2020/01	Installed & adjusted
No.1 turbine generator disassembly inspection with repairs	Kae Power Station	1	Unit	2019/09	2021/03	Delivered & adjusted
Water turbine and generator inspection with repairs	Iyogawa Power Station	1	Unit	2019/09	2021/01	Delivered & adjusted
Water turbine and generator inspection with repairs	Ohashi Power Station	1	Unit	2019/09	2021/02	Delivered & adjusted
Switch box (main transformer primary box, distribution line box, PC box)	Ittyuu Power Station	3	Box	2019/09	2020/10	Free on truck
Replacement of dam discharge warning device	Kagehira Power Station	1	Unit	2019/10	2021/03	Installed & adjusted
Switch box (Tr secondary box, PC box, distribution line box 5Fe)	Yuyama Power Station	7	Box	2019/10	2020/10	Free on truck

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Pressure oil and lubricating oil pump	Iyogawa Power Station	1	Unit	2019/10	2020/11	Free on truck
Switch box for generator 6.6kV	Ittyuu Power Station	6	Box	2019/10	2020/10	Free on truck
Replacement of automatic control system in Kuriyose intake dam	Ittyuu Power Station	1	Unit	2019/11	2020/03	Installed & adjusted
Installation of intake remote control system	Kirikoshi Power Station	1	Unit	2019/11	2020/03	Installed & adjusted
Replacement of Dozan River intake dam downstream warning device	Iyogawa Power Station	1	Unit	2019/11	2020/03	Installed & adjusted
Gas circuit breaker 72kV 800A 20kA	Yusuharagawa No.2 Power Station	3	Piece	2019/11	2020/12	Free on truck
Replacement of intake automatic dust collector	Tsuga Power Station	1	Unit	2019/12	2021/03	Installed & adjusted
Replacement of fish ladder parallel plate winch	Kae Power Station	1	Unit	2020/02	2021/03	Installed & adjusted
Replacement of cubicle in the dam	Tsuga Power Station	1	Unit	2020/03	2021/03	Installed & adjusted
Replacement of Odo/Ikadatsu dam discharge warning device DC power supply	Niyodogawa No.3 Power Station	1	Unit	2020/03	2021/03	Installed & adjusted